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

SCHEDULE 14A

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934
(Amendment No.)**

Filed by the Registrant x

Filed by a Party other than the Registrant o

Check the appropriate box:

- o Preliminary Proxy Statement
- o **Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- x Definitive Proxy Statement
- o Definitive Additional Materials
- o Soliciting Material Pursuant to §240.14a-12

ZIOPHARM Oncology, 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):

- x No fee required.
- o 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:

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

(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):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

- o Fee paid previously with preliminary materials.
- o 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:



ZIOPHARM Oncology

ZIOPHARM Oncology, Inc.
1180 Avenue of the Americas, 19th Floor
New York, New York 10036

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To the stockholders of ZIOPHARM Oncology, Inc.:

Please take notice that the Annual Meeting of Stockholders of ZIOPHARM Oncology, Inc. (the “**Company**”) will be held, pursuant to due call by the Board of Directors of the Company, at Saybrook Room Yale Club, 50 Vanderbilt Avenue, New York, New York, 10017, on Thursday, June 4, 2009, at 9:00 a.m. Eastern time, or at any adjournment or adjournments thereof, for the purpose of considering and taking appropriate action with respect to the following:

1. To elect eight directors;
2. To approve an amendment to the Company’s 2003 Stock Option Plan to increase the number of shares of common stock reserved for issuance thereunder from 4,002,436 shares to 6,002,436 shares; and
3. To ratify the appointment of Vitale, Caturano & Company, P.C. as the independent registered public accounting firm of the Company for fiscal 2009; and
4. To transact any other business as may properly come before the meeting or any adjournments thereof.

Pursuant to action of the Board of Directors, stockholders of record on April 14, 2009 will be entitled to vote at the Annual Meeting or any adjournments thereof. Your attention is directed to the Proxy Statement accompanying this Notice for a more complete statement of the matters to be considered at the meeting. A copy of the Annual Report for the year ended December 31, 2008 also accompanies this Notice.

By Order of the Board of Directors
ZIOPHARM Oncology, Inc.

Richard Bagley, President,
Chief Operating Officer
and Chief Financial Officer

Approximate Date of Mailing of Proxy Materials:
April 20, 2009

**Important Notice Regarding the Availability of Proxy Materials for the
Annual Meeting of Stockholders to be Held June 4, 2009**

The following materials, also included with this Notice, are available for view on the Internet:

- Proxy Statement for the Annual Meeting of Stockholders
- Annual Report to Stockholders, including Form 10-K, for the year ended December 31, 2008

To view the Proxy Statement or Annual Report to Stockholders, visit:

<http://www.vfnotice.com/ziopharm/>

**Please refer to the enclosed proxy card and the attached proxy statement
for information on voting options: Internet — Telephone — Mail**



ZIOPHARM Oncology

Proxy Statement of ZIOPHARM Oncology, Inc.

1180 Avenue of the Americas, 19th Floor
New York, New York 10036

**Annual Meeting of Stockholders
to be held
June 4, 2009**

VOTING BY PROXY AND REVOCATION OF PROXIES

This proxy statement is furnished in connection with the solicitation of proxies by the Board of Directors of ZIOPHARM Oncology, Inc. (periodically referred to in this proxy statement as the “**Company**”) to be used at the annual meeting of our stockholders to be held at Saybrook Room Yale Club, 50 Vanderbilt Avenue, New York, New York, 10017, on Thursday, June 4, 2009, at 9:00 a.m. Eastern time, or at any adjournment or adjournments thereof, for the purpose of considering and taking appropriate action with respect to the following:

1. To elect eight directors;
2. To approve an amendment to the Company’s 2003 Stock Option Plan to increase the number of shares of common stock reserved for issuance thereunder from 4,002,436 shares to 6,002,436 shares;
3. To ratify the appointment of Vitale, Caturano & Company, P.C. as the independent registered public accounting firm of the Company for fiscal 2009; and
4. To transact any other business as may properly come before the meeting or any adjournments thereof.

The approximate date on which this proxy statement and the accompanying proxy were first sent or given to stockholders was April 20, 2009.

VOTING PROCEDURES

Registered stockholders may vote in one of three ways: By completing and returning the enclosed proxy card via regular mail or by voting via the Internet or telephone, as permitted by Delaware law. Specific instructions for using these methods are set forth on the enclosed proxy card. The Internet and telephone procedures are designed to authenticate the stockholder’s identity and to allow stockholders to vote their shares and confirm that their instructions have been properly recorded.

Only holders of record of the Company’s common stock at the close of business on April 14, 2009, the “Record Date” for the annual meeting, are entitled to notice of and to vote at the annual meeting. On the Record Date, there were 21,848,464 shares of the Company’s common stock outstanding. Each share of common stock entitles the holder thereof to one vote upon each matter to be presented at the annual meeting. A quorum, consisting of a majority of the outstanding shares of the common stock entitled to vote at the annual meeting, must be present in person or represented by proxy before action may be taken at the annual meeting.

Each proxy returned to the Company will be voted in accordance with the instructions indicated thereon. Shares will be voted in the manner directed by the stockholders; provided, however, that if no direction is given by a stockholder, the shares will be voted as recommended by the Company’s Board of Directors. If a stockholder abstains from voting on any matter, the abstention will be counted for purposes of determining whether a quorum is present at the annual meeting for the transaction of business as well as shares entitled to vote on that matter. Under Section 216 of the Delaware General Corporation Law, on matters other than the election of directors, an action of the stockholders generally requires the affirmative vote of a majority of shares present in person or represented by proxy at the meeting and entitled to vote on the matter. Accordingly, an abstention on any matter other than the election of directors will have the same effect as a vote against that matter. A non-vote occurs when a nominee holding shares for a beneficial owner votes on one proposal, but does not vote on another proposal because the nominee does not have discretionary voting power and has not received instructions from the beneficial owner. Broker non-votes on a matter are counted as present for

purposes of establishing a quorum for the meeting, but are not considered entitled to vote on that particular matter. Consequently, non-votes generally do not have the same effect as a negative vote on the matter.

A stockholder giving a proxy may revoke it at any time before it is exercised by (i) giving written notice of revocation to the Chief Financial Officer of the Company, (ii) delivering a duly executed proxy bearing a later date, or (iii) voting in person at the annual meeting. Presence at the annual meeting of a stockholder who has signed a proxy does not, alone, revoke that proxy; revocation must be announced by the stockholder at the time of the meeting.

The election of each director under Proposal One requires the affirmative vote of the holders of a plurality of the shares of the Company's common stock present in person or represented by proxy at the annual meeting. Adoption of each other proposal requires the affirmative vote of the holders of a majority of such shares. **The Board of Directors unanimously recommends that you vote "FOR" each of the proposals set forth above.**

While the Board of Directors knows of no other matters to be presented at the annual meeting or any adjournment thereof, all proxies returned to the Company will be voted on any such matter in accordance with the judgment of the proxy holders.

ELECTION OF DIRECTORS (Proposal One)

The Board of Directors currently consists of eight directors, each of whom has been nominated for re-election by the Board of Directors. If re-elected, each nominee has consented to serve as a director of the Company, to hold office until the next annual meeting of stockholders, or until his successor is elected and shall have qualified. If any director nominee should withdraw or otherwise become unavailable for reasons not presently known, the proxies which would have otherwise been voted for that director nominee may be voted for a substitute director nominee selected by the Company's Board of Directors.

Set forth below is information regarding the individuals nominated for election to the Board of Directors, which includes information furnished by them as to their principal occupations for the last five years, certain other directorships held by them, and their ages as of the date of this proxy statement

Name and Age of Director and Nominee	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies	Director Since
Jonathan Lewis, M.D., Ph.D. Age 50	Dr. Lewis is Chief Executive Officer and a Director, serving in these capacities since the Company's September 2005 acquisition of ZIOPHARM, Inc. Dr. Lewis previously served as Chief Executive Officer and a Director of ZIOPHARM, Inc. since January 2004. From July 1994 until June 2001, Dr. Lewis served as Professor of Surgery and Medicine at Memorial Sloan-Kettering Cancer Center. He has been actively involved in leading translational and clinical research in cancer, and is widely recognized by patient advocacy groups. He has received numerous honors and awards in medicine and science, including the ASCO young investigator award, the Yale University Ohse award, and the Royal College of Surgeons Trubshaw Medal. He served as Chief Medical Officer and Chairman of the Medical Board at Antigenics, Inc. from June 2000 until November 2003. He serves as a Director on the Board of POPPA (the Police Organization Providing Peer Assistance) of the New York Police Department (NYPD) and on the Medical Advisory Board of the Sarcoma Foundation of America.	2005
Richard E. Bagley Age 65	Mr. Bagley is President, Chief Operating Officer, Chief Financial Officer, Treasurer and a Director, serving in these capacities since the Company's September 2005 acquisition of ZIOPHARM, Inc. Mr. Bagley previously served ZIOPHARM, Inc. as its President and Chief Operating Officer since July 2004, as a Director since December 2004 and as Chief Financial Officer and Treasurer since March 2005. Mr. Bagley initiated a career in pharmaceuticals in 1968 with Smith Kline and French Laboratories, leaving in 1985 after launching Tagamet in the U.S. as Vice President for Product Management and serving as President in the over-the-counter/consumer group. From 1985-1990, Mr. Bagley served in several capacities at Squibb Corporation including as President of E. R. Squibb & Sons, U.S. in 1988 and 1989. He subsequently worked in the biotechnology industry as Director, Chief Executive Officer and President of ImmuLogic Pharmaceutical Corporation from 1990 to 1994, as Director, Chief Executive Officer and Chairman of ProScript, Inc. from 1994 to 1998, as Director, President and Chief Executive Officer of AltaRex Corp. from 1998 to May 2003, and thereafter as a part time consultant and senior advisor.	2005

Name and Age of Director and Nominee	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies	Director Since
Murray Brennan, M.D. Age 68	Dr. Brennan has been a Director of the Company since its September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since December 2004. Dr. Brennan is Emeritus Chairman of Memorial Sloan-Kettering's Department of Surgery and previously served as Chairman since 1985. Dr. Brennan is the Benno C. Schmidt Chair in Clinical Oncology at the Memorial Sloan Kettering Cancer Center and continues to operate at this institution. He actively lectures at major institutions throughout the world and has authored or co-authored more than 1000 scientific papers. He previously served as Director of the American Board of Surgery, Chairman of the American College of Surgeons Commission on Cancer, President of the Society of Surgical Oncology, President of the American Surgical Association, President of the Society of Clinical Surgery and Vice President of the American College of Surgeons. Dr. Brennan is a member of the Institute of Medicine of The National Academy of Sciences. He is the recipient of numerous honors, honorary degrees and fellowships for his leadership role in surgery and oncology worldwide. Dr. Brennan serves as a non-executive Director on the Board of QSII (a medical information company) and as a member of their compensation committee. He also serves on the Board of the de Beaumont Foundation, a charitable foundation designed to support public health in the United States and elsewhere.	2005
James A. Cannon Age 70	James (Jim) Cannon has been a Director of the Company since its September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since December 2004. Mr. Cannon is Vice Chairman, Chief Financial Officer and a member of the Board of Directors of BBDO Worldwide. In these capacities, he oversees the financial management of BBDO operations in 77 countries. Jim joined BBDO in 1967, was promoted to Chief Financial Officer of the agency in 1984, and was elected to its Board of Directors one year later. An integral member of the team that formed Omnicom via a unique three-agency merger of BBDO, DDB and Needham Harper & Steers, Jim became Comptroller of the new group (NYSE: OMC) and a member of its Board of Directors in 1986, a position he held through 2002. In 1987, he was appointed Director of Financial Operations of the Omnicom Group, serving in this capacity until early 1989 when he rejoined BBDO Worldwide as Executive Vice President and Chief Financial Officer. His return was concurrent with that of Allen Rosenshine who became Chairman and Chief Executive officer of BBDO after heading Omnicom. Jim was promoted to Vice Chairman of the agency in 1990. Jim is a graduate of Pace University and served in the US Marine Corps.	2005

Name and Age of Director and Nominee	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies	Director Since
Senator Wyche Fowler, Jr., J.D. Age 68	Senator Wyche Fowler, Jr. has been a Director of the Company since its September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since December 2004. Senator Fowler served for 16 years in the United States Congress. In the US Senate, he served as assistant floor leader, helping mould a bipartisan consensus for major public policy issues. Senator Fowler was a member of the Senate Appropriations, Budget, Energy and Agriculture Committees. First elected to the US House of Representatives, he was a member of the Ways and Means and Foreign Affairs Committees, as well as the Select Committee on Intelligence. President Clinton appointed Senator Fowler US Ambassador to the Kingdom of Saudi Arabia from 1996 through 2001. On his return, the FBI awarded him its highest civilian honor, The Jefferson Cup, for his assistance in combating terrorism and for helping solve terrorism crimes against the US military in Saudi Arabia. He was named Lion of Judah by the State of Israel for successfully freeing Soviet Jew Yakov Gluzman. Senator Fowler is now engaged in an international business and law practice, and also serves as Chairman of the Board of the Middle East Institute, a non-profit foundation in Washington, DC.	2005
Gary S. Fragin	Gary S. Fragin has been a Director of the Company since its	2005

September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since December 2004. Mr. Fragin has more than 30 years of experience on Wall Street. He is currently managing partner of Fragin Asset Management, L.P. and General Partner of Ducat Investment Group, L.P. Mr. Fragin was the general partner and Chief Administrative / Operating Officer of Steinhardt Organization, one of the largest and most successful hedge funds in existence at that time. Prior to that, Mr. Fragin was a Partner, Director of Trading, and member of the Management Committee and Executive Committee at Oppenheimer and Co. He holds a BE degree from Vanderbilt University, and an MBA from Columbia University.

Name and Age of Director and Nominee	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies	Director Since
Timothy McInerney Age 48	Timothy McInerney has been a Director of the Company since its September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since July 2005. In June of 2007, Mr. McInerney joined Riverbank Capital who specializes in financing for the biotech and specialty pharmaceutical industry as a Partner. From 1992 to March 2007, Mr. McInerney was a Managing Director of Paramount BioCapital, Inc. where he oversaw the overall distribution of Paramount's private equity product. Prior to 1992, Mr. McInerney was a research analyst focusing on the biotechnology industry at Ladenburg, Thalman & Co. Prior to that, Mr. McInerney held equity sales positions at Bear Sterns & Co. and Shearson Lehman Brothers, Inc. Mr. McInerney also has worked in sales and marketing for Bristol-Myers Squibb. He received his B.S. in pharmacy from St. John's University at New York. He also completed a post-graduate residency at the New York University Medical Center in drug information systems.	2005
Michael Weiser, M.D., Ph.D. Age 46	Dr. Weiser has been a Director of the Company since its September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since its inception in September 2003. Dr. Weiser is currently founder and co-chairman of Actin Biomed, a New York based healthcare investment firm. Prior to joining Actin, Dr. Weiser was the Director of Research of Paramount BioCapital, Inc. Dr. Weiser completed his Ph.D. in Molecular Neurobiology at Cornell University Medical College and received his M.D. from New York University School of Medicine. He performed his post-graduate medical training in the Department of Obstetrics and Gynecology at New York University Medical Center. Dr. Weiser also completed a Postdoctoral Fellowship in the Department of Physiology and Neuroscience at New York University School of Medicine and received his B.A. in Psychology from University of Vermont. Dr. Weiser is a member of The National Medical Honor Society, Alpha Omega Alpha. Dr. Weiser currently serves on the board of directors of Manhattan Pharmaceuticals, Inc., Chelsea Therapeutics International, Ltd., Emisphere Technologies, Inc., Hana Biosciences, Inc. and Vioquest Pharmaceuticals, Inc. as well as several privately held companies.	2005

EXECUTIVE OFFICERS AND COMPENSATION

Executive Officers of the Company

Name and Title	Age	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies
Jonathan Lewis, M.D., Ph.D. Chief Executive Officer	50	See "Election of Directors (Proposal One)" — above.
Richard E. Bagley President, Chief Operating Officer and Chief Financial Officer	65	See "Election of Directors (Proposal One)" — above.

Summary Compensation Table

The table below summarizes the total compensation paid or earned during the fiscal years ended December 31, 2008, 2007 and 2006 by (i) each individual serving as our principal executive officer during the fiscal years ended December 31, 2008; and (ii) the

two other most highly compensated individuals who served as an executive officer of the Company as of December 31, 2008 and whose total compensation received from the Company during such fiscal year (other than non-qualified deferred compensation earnings, if any) exceeded \$100,000 (collectively, the “named executives”).

Name and Principal Position	Year	Salary	Bonus	Restricted Stock Awards ⁽¹⁾	Stock Option Grants ⁽¹⁾	All Other Compensation	Total
Jonathan Lewis, M.D., Ph.D. Chief Executive Officer	2008	\$ 419,215	\$ 250,000 ⁽³⁾	\$ 115,375 ⁽⁵⁾	\$ 155,561 ⁽⁶⁾	\$ 5,169 ⁽⁸⁾	\$ 945,320
	2007	\$ 385,000	\$ 315,000 ⁽⁴⁾	\$ —	\$ 77,759 ⁽⁷⁾	\$ 5,289 ⁽⁹⁾	\$ 783,048
Richard E. Bagley President, Chief Operating Officer and Chief Financial Officer	2008	\$ 308,750	\$ 50,000 ⁽¹⁰⁾	\$ 68,071 ⁽¹²⁾	\$ 127,343 ⁽¹⁴⁾	\$ —	\$ 554,164
	2007	\$ 275,000	\$ 105,000 ⁽¹¹⁾	\$ 3,302 ⁽¹³⁾	\$ 144,431 ⁽¹⁵⁾	\$ —	\$ 527,733
Brian Schwartz, M.D. ⁽²⁾ Former Senior Vice President, Medical and Regulatory and Chief Medical Officer	2008	\$ 170,392	\$ —	\$ (3,302) ⁽¹⁷⁾	\$ 86,970 ⁽¹⁹⁾	\$ —	\$ 254,060
	2007	\$ 284,630	\$ 130,000 ⁽¹⁶⁾	\$ 3,302 ⁽¹⁸⁾	\$ 183,233 ⁽²⁰⁾	\$ —	\$ 601,165

(1) Amounts listed reflect the dollar amounts related to stock awards and option awards, as applicable, recognized for financial statement reporting purposes with respect to the fiscal years ended December 31, 2008, 2007 and 2006, respectively, in accordance with FAS 123(R) (disregarding the estimate of forfeitures related to service-based vesting conditions). Therefore, amounts listed may include amounts related to awards granted in and prior to such fiscal years. Assumptions used in the calculation of this amount are included in footnote 2 to the Company’s audited financial statements for the fiscal year ended December 31, 2008, which are contained in the Company’s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 23, 2009.

(2) Dr. Schwartz commenced employment with us in June 2006 and terminated his employment effective July 11, 2008.

(3) Includes an annual guaranteed bonus of \$250,000 required under the terms of Dr. Lewis’ employment agreement with the Company for work performed in fiscal 2007.

(4) Includes an annual guaranteed bonus of \$250,000 required under the terms of Dr. Lewis’ employment agreement with the Company for work performed in fiscal 2006 and an additional \$65,000 discretionary bonus approved by the compensation committee based on Dr. Lewis’ fiscal 2007 job performance.

(5) On January 8, 2008, the Company awarded Dr. Lewis 100,000 shares of the Company’s common stock with transfer and forfeiture restrictions. The stock vests and the restrictions lapse in annual installments over three years commencing on the one year anniversary of the grant date. On December 3, 2008, the Company awarded Dr. Lewis 150,000 shares of the Company’s common stock with transfer and forfeiture restrictions. The stock vests and the restrictions lapse on the one year anniversary of the grant date.

(6) During fiscal 2008, no stock options were granted to Dr. Lewis.

(7) During fiscal 2007, the Company granted Dr. Lewis options to purchase 135,000 shares of the Company’s common stock as follows: (i) options to purchase 35,000 shares of common stock at a per share exercise price of \$4.85 were granted on June 18, 2007; and (ii) options to purchase 100,000 shares of

common stock at a per share exercise price of \$2.73 were granted on December 12, 2007. Such options vest in annual installments over three years commencing on the one year anniversary of the grant date.

(8) Amount represents the dollar value of life insurance premiums paid by the Company for the benefit of Dr. Lewis during fiscal 2008.

(9) Amount represents the dollar value of life insurance premiums paid by the Company for the benefit of Dr. Lewis during fiscal 2007.

(10) Includes an annual guaranteed bonus of \$50,000 required under Mr. Bagley’s employment agreement with the Company for worked performed for the period of July 2007 to July 2008.

(11) Includes an annual guaranteed bonus of \$50,000 required under Mr. Bagley’s employment agreement with the Company for worked performed for the period of July 2006 to July 2007 and an additional \$55,000 discretionary bonus approved by the compensation committee based on Mr. Bagley’s fiscal 2007 job performance.

(12) On December 3, 2008, the Company awarded Mr. Bagley 50,000 shares of the Company’s common stock with transfer and forfeiture restrictions. The stock vests and the restrictions lapse on the one year anniversary of the grant date.

(13) Reflects 25,000 shares of restricted stock that were granted to Mr. Bagley on December 12, 2007. Such shares are subject to transfer and forfeiture restrictions that lapse in their entirety on December 1, 2008.

(14) On June 25, 2008, the Company granted Mr. Bagley options to purchase 60,000 shares of the Company’s common stock at a per share exercise price of \$2.14. Such options vest in annual installments over three years commencing on the one year anniversary of the grant date.

(15) During fiscal 2007, the Company granted Mr. Bagley options to purchase 100,000 shares of the Company’s common stock as follows: (i) options to purchase 25,000 shares of common stock at a per share exercise price of \$4.85 were granted on June 18, 2007; and (ii) options to purchase 75,000 shares of common stock at a per share exercise price of \$2.73 were granted on

December 12, 2007. Such options vest in annual installments over three years commencing on the one year anniversary of the grant date.

- (16) Includes a guaranteed bonus of \$40,000 required under Dr. Schwartz's employment agreement with the Company for work performed during his first full year of employment and an additional \$90,000 discretionary bonus approved by the compensation committee based on Dr. Schwartz's fiscal 2007 job performance.
- (17) During fiscal 2008, no restricted stock was awarded to Dr. Schwartz. The amount reflects an expense reversal for unvested shares of restricted stock granted to Dr. Schwartz on December 12, 2007 that were forfeited upon termination of his employment with the Company in July 2008.
- (18) Reflects expense incurred in connection with 25,000 shares of restricted stock that were granted to Dr. Schwartz on December 12, 2007. Such shares were subject to transfer and forfeiture restrictions that were scheduled to lapse in their entirety on December 1, 2008. All such shares were forfeited by Dr. Schwartz upon termination of his employment with the Company in July 2008.
- (19) During fiscal 2008, no stock options were granted to Dr. Schwartz. The amount reflects the expense for shares vesting during 2008 prior to Dr. Schwartz leaving the Company and the expense reversal for unvested shares that were forfeited. The details are as follows:

Grant Date	No. of Shares	Vesting Period in Years	2008 Expense	2008 Expense Reversal for Forfeited Unvested Shares
6/1/2006	100,000	3	\$ 67,976	\$ —
12/13/2006	15,000	3	\$ —	\$ —
6/18/2007	35,000	3	\$ 20,615	\$ —
12/12/2007	50,000	3	\$ —	\$ (1,621)

- (20) During fiscal 2007, the Company granted Dr. Schwartz options to purchase 85,000 shares of the Company's common stock as follows: (i) options to purchase 35,000 shares of common stock at a per share exercise price of \$4.85 were granted on June 18, 2007; and (ii) options to purchase 50,000 shares of common stock at a per share exercise price of \$2.73 were granted on December 12, 2007. Such options vest in annual installments over three years commencing on the one year anniversary of the date of grant.

Description of Employment Agreements and Related Compensation

Employment Agreement with Jonathan Lewis, M.D., Ph.D.

During the fiscal year ended December 31, 2006, Dr. Jonathan Lewis served as the Company's Chief Executive Officer under a written three-year employment agreement dated January 8, 2004. Under the agreement, Dr. Lewis received an annual base salary of \$350,000 and a guaranteed annual bonus of \$250,000. In addition, Dr. Lewis was eligible to receive an annual discretionary bonus of up to 100% of his base salary, as determined by the compensation committee of our Board of Directors, as well as stock options that may be granted in the discretion of the compensation committee. In December 2006, the Company and Dr. Lewis entered into a written extension to his existing employment agreement pursuant to which the Company extended the term of Dr. Lewis' employment to January 8, 2008 and increased his annual base salary to \$385,000.

The Company's practice has been to evaluate compensation and related job performance at the end of each fiscal year and grants cash bonuses and/or stock options to employees based upon such evaluation. During fiscal 2007, the compensation committee determined to pay Dr. Lewis a discretionary cash bonus of \$65,000 for his job performance in fiscal 2007. This determination was based on the Company meeting or exceeding previously set 2007 operational goals. In addition, the Company granted Dr. Lewis a stock option to purchase 35,000 shares of common stock at a per share exercise price of \$4.85 on June 18, 2007 and a year-end stock option to purchase 100,000 shares of common stock at a per share exercise price of \$2.73. Such options vest in annual installments over three years commencing on the one year anniversary of the date of grant.

On January 18, 2008, the Company entered into a new employment agreement with Dr. Lewis that was retroactively effective as of the January 8, 2008 expiration date of his prior agreement. Under the new agreement, which has a three year term commencing January 8, 2008, Dr. Lewis receives an annual base salary of \$420,000, which is subject to increase at the discretion of the Board of Directors based on an annual review. In addition, Dr. Lewis is eligible to receive an annual bonus based on his performance as determined by the Board of Directors. The target amount of the annual performance is a range from \$250,000 to \$360,000. The agreement contemplates that Dr. Lewis and the Company's compensation committee will agree on certain performance targets each year. The actual amount received will be based on whether each of these targets have been achieved by the Company, with lesser amounts paid if substantial progress has been made to achieve the goal or it has been abandoned by the Company, and greater amounts paid if expectations are exceeded. Dr. Lewis is also eligible to receive an additional annual discretionary bonus in such amounts determined by the Board of Directors.

On December 5, 2008, the employment agreement with Dr. Lewis was amended to provide for a restricted stock grant of 150,000 shares, with restrictions that will lapse on December 3, 2009, in lieu of the cash bonus for fiscal 2008 that Dr. Lewis would otherwise have been eligible to receive. Replacing Dr. Lewis' cash bonus potential with a restricted stock grant was in accordance with the Company's efforts to conserve cash. The Company's other senior management employees also received restricted stock grants in accordance with these efforts.

Under his current agreement, Dr. Lewis is eligible for reimbursement of reasonable out-of-pocket expenses incurred by him in furtherance of the business and affairs of the Company, including reasonable travel and entertainment expenses, as well as for medical licensing fees, professional dues and memberships, journal subscriptions and up to \$10,000 per year in costs associated with certain corporate consultants retained by Dr. Lewis. In addition, the Company has agreed to reimburse Dr. Lewis for premiums on life insurance policies having aggregate coverage limits of up \$800,000 and premiums on disability insurance policies covering Dr. Lewis in amounts up to \$20,000 per month.

In connection with entering into the new employment agreement, the Company granted Dr. Lewis an award of restricted stock in the amount of 100,000 shares. The restricted stock award is governed by an agreement that prohibits Dr. Lewis from transferring the restricted shares and provides that the shares will be forfeited without consideration if Dr. Lewis's employment with the Company is terminated. The transfer restrictions and forfeiture obligations are scheduled to lapse in three equal annual installments on January 8, 2009, January 8, 2010 and January 8, 2011. Dr. Lewis will also be eligible to receive additional equity awards as determined by the Board of Directors in its sole discretion from time to time.

The employment agreement provides that Dr. Lewis will continue to receive his base salary, benefits and a pro-rata portion of his target performance bonus for a period of one year if he is terminated by the Company for a reason other than death, disability or "Cause," or if Dr. Lewis resigns for "Good Reason," each as defined in the employment agreement. In connection with any such termination, the pro rata portion of Dr. Lewis's performance bonus will be based on the number of days Dr. Lewis has been employed by the Company during the year of termination. In the event Dr. Lewis's employment is terminated without "Cause" prior to and in connection with a "Change in Control," or within 18 months thereafter, he will continue to receive his base salary and benefits for a period of two years following such termination and will also receive the greater of the amount of his performance bonus for the year of termination or the average of the amounts received as a performance bonus under the new employment agreement or guaranteed bonus under the previous employment agreement for the two years preceding the year of termination. If Dr. Lewis's employment is terminated as a result of death or disability, Dr. Lewis (or his estate, as applicable) will receive his base salary for a period of one year following the date of termination. Upon occurrence of any of the above termination events, all stock options and restricted stock grants scheduled to vest by the end of the calendar year in which such termination occurs will be accelerated and deemed to vest as of the termination date.

The employment agreement provides that Dr. Lewis will not compete with the Company, or solicit employees, clients or customers of the Company, for twelve months after the termination of his employment with the Company; provided, however, that the Company will be obligated to pay Dr. Lewis his base salary and his performance bonus (based on Dr. Lewis's average performance bonus received for the prior two years) if the Company desires such non-competition and non-solicitation provisions to have effect following expiration of the employment agreement without renewal.

Employment Agreement with Richard E. Bagley

During the fiscal year ended December 31, 2007, Mr. Richard E. Bagley served as the Company's President, Chief Operating Officer, Chief Financial Officer, and Treasurer under a written three-year employment agreement dated July 21, 2004 and effective July 1, 2004. Under the agreement, Mr. Bagley received an annual base salary of \$250,000 and a guaranteed annual bonus of \$50,000. In addition, Mr. Bagley was eligible to receive an annual discretionary bonus as determined by the compensation committee of our Board of Directors, as well as stock options that may be granted at the discretion of the compensation committee. Following approval by the Company's Board of Directors at a meeting held June 18, 2007, the Company entered into an Employment Agreement Extension with Mr. Bagley, pursuant to which the Company extended the term of Mr. Bagley's employment for an additional one year period at his current annual base salary of \$275,000.

During fiscal 2007, the compensation committee determined to pay Mr. Bagley a discretionary cash bonus of \$55,000 for his job performance in fiscal 2007. This determination was based on the Company's meeting or exceeding its previously set 2007 operational goals. In addition, the Company granted Mr. Bagley a stock option to purchase 25,000 shares of common stock at a per share exercise price of \$4.85 on June 18, 2007 and a year-end stock option to purchase 75,000 shares of common stock at a per share exercise price of \$2.73. Such options vest in annual installments over three years commencing on the one year anniversary of the date of grant. As part of a year-end grant of stock awards to certain of the Company's employees, the Company granted Mr. Bagley an award of restricted stock in the amount of 25,000 shares. The restricted stock award is governed by an agreement that prohibits Mr. Bagley from transferring the restricted shares and provides that the shares will be forfeited without consideration if Mr. Bagley's employment with the Company is terminated. The transfer restrictions and forfeiture obligations are scheduled to lapse on December 1, 2008.

Effective June 25, 2008, the Company entered into an employment agreement with Mr. Bagley that provides for a three-year employment term beginning on July 1, 2008. Under the new agreement, Mr. Bagley is entitled to receive an annual base salary of \$315,000, which is subject to increase at the discretion of the Board of Directors based on an annual review. In addition, Mr. Bagley is eligible to receive an annual bonus based on his performance as determined by the Board of Directors. The target amount of the annual performance bonus is \$100,000, and the actual amount to be received will be based on the achievement of certain performance goals to be agreed upon by Mr. Bagley and the Board's compensation committee for each calendar year. Mr. Bagley is also eligible to receive an additional annual discretionary bonus in such amount as may be determined by the Board of Directors.

On December 5, 2008, the employment agreement with Mr. Bagley was amended to provide for a restricted stock grant of 50,000 shares, with restrictions that will lapse on December 3, 2009, in lieu of the cash bonus for fiscal 2008 that Mr. Bagley would otherwise have been eligible to receive. Replacing Mr. Bagley's cash bonus potential with a restricted stock grant was in accordance with the Company's efforts to conserve cash. The Company's other senior management employees also received restricted stock grants in accordance with these efforts.

Under his new agreement, Mr. Bagley is eligible for reimbursement of reasonable out-of-pocket expenses incurred by him in furtherance of the business and affairs of the Company, including reasonable travel and entertainment expenses, as well as reasonable professional dues.

In connection with entering into the new employment agreement on June 25, 2008, the Company granted Mr. Bagley an award of 60,000 options to purchase the Company's common stock at a per share exercise price of \$2.14, which options vest in three equal annual installments on June 25, 2009, June 25, 2010 and June 25, 2011.

The new employment agreement provides that Mr. Bagley will continue to receive his base salary and benefits for a period of one year if (i) he is terminated by the Company for a reason other than death, disability or "Cause," as that term defined in the employment agreement, (ii) Mr. Bagley resigns for "Good Reason," as that term defined in the employment agreement, or (iii) Mr. Bagley's employment is terminated without Cause prior to and in connection with a "Change of Control," as that term is defined in the employment agreement, or within 18 months thereafter. In connection with any such termination, any of Mr. Bagley's stock options that have vested as of the date of the termination shall remain exercisable for a period of 90 days and any unvested stock options shall be deemed to have expired as of the date of termination. In the event of a Change of Control, Mr. Bagley's stock options that are scheduled to vest by the end of the calendar year in which the Change of Control occurs shall be accelerated and deemed to have vested as of the date immediately preceding the Change of Control. If Mr. Bagley's employment is terminated as a result of his death or disability, Mr. Bagley (or his estate, as applicable) will receive his base salary for a period of one year and any accrued but unpaid bonus payments.

The employment agreement provides that Mr. Bagley will not compete with the Company, or solicit employees, clients or customers of the Company, for twelve months after the termination of his employment with the Company; provided, however, that the Company will be obligated to pay Mr. Bagley his base salary if the Company desires such non-competition and non-solicitation provisions to have effect following expiration of the employment agreement without renewal.

Employment Agreement with Brian Schwartz, M.D.

Brian Schwartz, M.D., served as the Company's Senior Vice President, Medical and Regulatory, and Chief Medical Officer from June 1, 2006 until he resigned from the Company effective July 11, 2008. Dr. Schwartz's employment with the Company was governed by a written employment agreement dated May 10, 2006. Under the employment agreement, Dr. Schwartz initially received an annual base salary of \$275,000, which was subsequently increased to \$284,625 for fiscal 2007. In connection with the commencement of his employment with the Company, Dr. Schwartz received a \$30,000 signing bonus and options to purchase 100,000 shares of the Company's common stock. These options, which had an exercise price of \$5.35 per share, were granted on June 1, 2006 and were scheduled to vest in equal annual installments over three years commencing on May 10, 2007 (the first anniversary of the date of the employment). The stock option terminated with respected to 33,333 unvested shares upon Dr. Schwartz's resignation from the Company in

July 2008. The employment agreement also entitled Dr. Schwartz to receive a guaranteed bonus of \$40,000 on the first anniversary of his employment with the Company, which was paid on June 1, 2007. In addition, Dr. Schwartz was entitled to receive additional annual discretionary bonuses as determined by the compensation committee of our Board of Directors, as well as stock options granted at the discretion of the compensation committee. The Company was also required to either pay or reimburse Dr. Schwartz for the reasonable and actual expense of renting a one-bedroom apartment or comparable hotel accommodations for his use while working at the Company's Charlestown, Massachusetts office.

The agreement had no particular term and was terminable by either Dr. Schwartz or the Company at any time, with or without "Cause," as defined in the employment agreement. However, in the event that his employment was terminated by the Company other than for "Cause," and other than by reason of retirement, death or permanent disability, Dr. Schwartz would have been entitled to continue to receive his base salary for a period of one year. Dr. Schwartz terminated his employment with the Company effective July 11, 2008 without triggering any severance obligation on the part of the Company. Dr. Schwartz was also party to an Invention, Non-disclosure and Non-competition Agreement that prohibits him from, among other things, competing with Company for a period of one year following the July 11, 2008 termination of his employment.

During fiscal 2007, the compensation committee determined to pay Dr. Schwartz a discretionary cash bonus of \$90,000 for his job performance in fiscal 2007. This determination was based on the Company's meeting or exceeding its previously set 2007 operational goals. In addition, the Company granted Dr. Schwartz a stock option to purchase 35,000 shares of common stock at a per share exercise price of \$4.85 on June 18, 2007 and a year-end stock option to purchase 50,000 shares of common stock at a per share exercise price of \$2.73. Such options were scheduled to vest in annual installments over three years commencing on the one year anniversary of the date of grant. These stock options terminated with respected to 23,333 and 33,333 unvested shares, respectively, upon Dr. Schwartz's resignation from the Company in July 2008. As part of a year-end grant of stock awards to certain of the Company's employees, the Company granted Dr. Schwartz an award of restricted stock in the amount of 25,000 shares. The restricted stock award was governed by an agreement that prohibits Dr. Schwartz from transferring the restricted shares and provided that the shares would be forfeited without consideration if Dr. Schwartz's employment with the Company was terminated. The transfer restrictions and forfeiture obligations were scheduled to lapse on December 1, 2008. Dr. Schwartz forfeited the restricted shares upon his resignation from the Company in July 2008.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information concerning stock options held by the named executives at December 31, 2008:

Name	Option Grants				Stock Awards	
	Number of Securities Underlying Unexercised	Number of Securities Underlying Unexercised	Option Exercise Price	Option Expiration Date	Number of Shares of Stock That	Market Value of Shares of Stock That

	Options No. Exercisable	Options No. Unexercisable			Have Not Vested	Have Not Vested ⁽¹²⁾
Jonathan Lewis, M.D., Ph.D.	25,674	—	\$ 0.08	1/7/2014	—	—
	242,979	—	\$ 0.08	1/26/2014	—	—
	87,789	—	\$ 4.31	6/8/2015	—	—
	54,161	—	\$ 4.31	9/13/2015	—	—
	75,000	—	\$ 5.01	4/25/2016	—	—
	139,315	—	\$ 5.01	4/25/2016	—	—
	20,000	10,000 ⁽¹⁾	\$ 6.49	12/13/2016	—	—
	11,667	23,333 ⁽²⁾	\$ 4.85	6/18/2017	—	—
	33,334	66,666 ⁽³⁾	\$ 2.73	12/12/2017	—	—
	—	—	—	—	100,000 ⁽⁴⁾	\$ 58,000
	—	—	—	—	150,000 ⁽⁵⁾	\$ 87,000
Richard E. Bagley	150,668	—	\$ 1.70	7/1/2014	—	—
	63,197	—	\$ 4.31	6/8/2015	—	—
	27,417	—	\$ 4.31	9/13/2015	—	—
	40,000	—	\$ 5.01	4/25/2016	—	—
	54,873	—	\$ 5.01	4/25/2016	—	—
	13,334	6,666 ⁽⁶⁾	\$ 6.49	12/13/2016	—	—
	8,334	16,666 ⁽⁷⁾	\$ 4.85	6/18/2017	—	—
	25,000	50,000 ⁽⁸⁾	\$ 2.73	12/12/2017	—	—
	—	60,000 ⁽⁹⁾	\$ 2.14	6/25/2018	—	—
	—	—	—	—	50,000 ⁽¹⁰⁾	\$ 29,000
Brian Schwartz, M.D. ⁽¹¹⁾	—	—	—	—	—	—

(1) Vests with respect to 10,000 options shares on December 13, 2009.

(2) Vests with respect to 11,667 option shares on June 18, 2009, and vests with respect to 11,666 option shares on June 18, 2010.

(3) Vests with respect to 33,333 option shares on each of December 12, 2009 and 2010.

(4) Such shares are subject to transfer and forfeiture restrictions that lapse with respect 33,333 shares on January 8, 2009 and 2010, and vests with respect to 33,334 shares on January 8, 2011.

(5) Such shares are subject to transfer and forfeiture restrictions that lapse in their entirety with respect 150,000 shares on December 3, 2009.

(6) Vests with respect to 6,666 option shares on December 13, 2009.

(7) Vests with respect to 8,333 option shares on each of June 18, 2009 and 2010.

(8) Vests with respect to 25,000 option shares on each of December 12, 2009 and 2010.

(9) Vests with respect to 20,000 option shares on each of June 25, 2009, 2010 and 2011.

(10) Such shares are subject to transfer and forfeiture restrictions that lapse in their entirety with respect 150,000 shares on December 3, 2009.

(11) The unvested portion of all stock options and all shares of restricted stock held by Dr. Schwartz were forfeited upon his resignation from the Company on July 11, 2008. The vested portion of all stock options held by Dr. Schwartz terminated exercised 90 days following his resignation from the Company.

(12) Market value calculations based on the Company's closing stock price of \$0.58 on December 31, 2008.

Severance or Change of Control Payments

Depending upon the events surrounding a possible termination of employment with Dr. Lewis or Mr. Bagley, they may continue to receive compensation following such termination and the vesting of Dr. Lewis or Mr. Bagley's stock options may accelerate in whole or in part upon such termination. No severance payments were made to Dr. Schwartz upon his termination of employment with the Company in July 2008. Arrangements related to post-termination compensation and benefits applicable to Dr. Lewis and Mr. Bagley, as well as those that applied to Dr. Schwartz, are discussed above under the headings "Description of Employment Agreements and Related Compensation — Employment Agreement with Jonathan Lewis, M.D., Ph.D.," "Description of Employment Agreements and Related Compensation — Employment Agreement with Richard E. Bagley" and "Description of Employment Agreements and Related Compensation — Employment Agreement with Brian Schwartz, M.D."

Director Compensation

Effective June 18, 2007, the Company established its current director compensation arrangements. Under the current arrangements, each non-employee director of the Company receives a \$3,750 quarterly cash retainer paid in arrears plus \$2,000 for each Board of Director's meeting attended by such director. In addition, the chairmen of the Company's audit committee and compensation committee receive an additional quarterly cash retainer of \$2,500 paid in arrears. With the exception of the chairmen of the audit committee and compensation committee, each other non-employee director serving on the Company's audit committee, compensation committee and nominating and corporate governance committee receives a \$1,000 cash payment for each committee meeting attended by such director. Prior to June 18, 2007, each non-employee director of the Company received a \$5,000 quarterly cash retainer paid in arrears and each non-employee director serving on the Company's audit committee, compensation committee

and nominating and corporate governance committee received a \$1,000 cash payment for each committee meeting attended by such director.

The Company's practice is to approve year-end equity incentive grants to non-employee directors in consideration for services provided to the Company as director during the preceding year. On December 3, 2008, the Board of Directors awarded each non-employee director 15,000 shares of the Company's common stock that are subject to transfer and forfeiture restrictions that lapse in their entirety on the first anniversary of the grant date.

The table below summarizes the compensation paid by the Company to its non-employee directors for the fiscal year ended December 31, 2008.

Name	Fees Earned or Paid in Cash	Option Awards ⁽¹⁾	All Other Compensation	Total
Jonathan Lewis, M.D., Ph.D. ⁽²⁾	\$ —	\$ —	\$ —	
Richard E. Bagley ⁽²⁾	\$ —	\$ —	\$ —	
Murray Brennan	\$ 33,000 ⁽³⁾	\$ 55,676	\$ —	\$ 88,676
James A. Cannon	\$ 33,000 ⁽⁴⁾	\$ 55,676	\$ —	\$ 88,676
Gary S. Fragin	\$ 26,000 ⁽⁵⁾	\$ 55,676	\$ —	\$ 81,676
Wyche Fowler, Jr., J.D.	\$ 26,000 ⁽⁶⁾	\$ 55,676	\$ —	\$ 81,676
Timothy McInerney	\$ 23,000 ⁽⁷⁾	\$ 55,676	\$ —	\$ 78,676
Michael Weiser, M.D., Ph.D.	\$ 25,000 ⁽⁸⁾	\$ 55,676	\$ —	\$ 80,676

(1) Amounts listed reflect the dollar amounts related to option awards recognized for financial statement reporting purposes with respect to the fiscal year ended December 31, 2008 in accordance with FAS 123(R). Therefore, amounts listed may include amounts related to awards granted in and prior to fiscal 2008. Assumptions used in the calculation of this amount are included in footnote 2 to the Company's audited financial statements for the fiscal year ended December 31, 2008, which are contained in the Company Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 23, 2009.

(2) Employee directors.

(3) Includes cash retainers totaling \$23,000 and \$10,000 in fees related to Dr. Brennan's attendance at meetings of the compensation committee.

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(4) Includes cash retainers totaling \$23,000 and payments totaling \$10,000 for Mr. Cannon's service as chairman of the audit committee.

(5) Includes cash retainers totaling \$23,000 and \$3,000 in fees related to Mr. Fragin's attendance at meetings of the audit committee.

(6) Includes cash retainers totaling \$23,000 and \$3,000 in fees related to Mr. Fowler's attendance at meetings of the audit committee.

(7) Includes cash retainers totaling \$23,000.

(8) Includes cash retainers totaling \$23,000 and \$2,000 in fees related to Dr. Weiser's attendance at meetings of the compensation committee.

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AMENDMENT TO 2003 STOCK OPTION PLAN (Proposal Two)

The Company currently maintains one stock incentive plan, the 2003 Stock Option Plan (the "2003 Plan"), which is currently approved to grant up to an aggregate of 4,002,436 shares of the Company's common stock. Of the shares reserved for issuance under the 2003 Plan, 597,728 were available for future grants as of December 31, 2008.

On December 3, 2008, the Board of Directors approved an amendment to the 2003 Plan, subject to approval at the annual meeting by the Company's stockholders, to increase the number of shares reserved for issuance thereunder by 2,000,000 shares so that the total shares reserved for issuance pursuant to the 2003 Plan would be increased to 6,002,436. Although the 2003 Plan does not limit the aggregate number of shares reserved for issuance thereunder that may be granted during any period of time, the Board of Directors anticipates that the proposed increase in shares reserved for issuance under the 2003 Plan will be sufficient to satisfy grants to recipients in accordance with the Company's compensation policies through fiscal 2009 and 2010.

The Board of Directors considered a number of factors in determining the appropriate number of shares for future issuance, including overhang levels at other similar sized competitive peer companies, the highly competitive labor market in the biotechnology industry, and the Company's strategy to attract and retain highly regarded and well-qualified directors, officers and employees, particularly at this current stage of the Company's growth and development.

Immediately below is a summary of the existing 2003 Plan and a discussion of the federal income tax consequences of the issuance and exercise of incentives under the 2003 Plan to recipients and to the Company. This summary of the existing 2003 Plan

is qualified entirely by reference to the complete text of the 2003 Plan, a copy of which may be obtained by referring to the information that the Company files with the Securities and Exchange Commission.

Description of the Existing 2003 Plan

General

The purpose of the 2003 Plan is to increase stockholder value and to advance the interests of the Company by furnishing a variety of economic incentives (“Incentives”) designed to attract, retain and motivate employees, certain key consultants and directors of the Company. The compensation committee (the “Committee”) of Board of Directors administers the 2003 Plan. The Committee may grant Incentives to employees (including officers) of the Company or its subsidiaries, members of the Board of Directors, and consultants or other independent contractors who provide services to the Company or its subsidiaries, in the following forms, each of which is discussed below: (a) performance shares; (b) incentive stock options and non-statutory stock options; (c) stock appreciation rights (“SARs”); (d) stock awards; and (e) restricted stock.

The maximum number of shares of common stock authorized for issuance under the 2003 Plan is 4,002,436 shares, subject to adjustment in the event of a recapitalization or other corporate restructuring. Of this amount, 2,975,817 shares remain available for issuance under existing Incentive grants that remain outstanding or future Incentive grants, representing approximately 13.6% of the outstanding shares of the Company’s common stock on the Record Date.

Stockholders are often interested in the potential for equity dilution resulting from grants of equity incentives (performance shares, stock options, restricted stock, etc.) under a company’s equity compensation plans. The percentage amount by which current stockholders’ equity interests may be diluted as a result of such grants is commonly referred to as the “overhang.” The overhang is calculated by dividing (i) the total number of incentives granted and available for grant under equity compensation plans, by (ii) the total shares outstanding assuming the exercise of all outstanding incentives and the grant and exercise of all available incentives. The current overhang for the 2003 Plan (which is currently the Company’s only equity compensation plan) is approximately 12.0%, based on amounts as of the Record Date.

Description of Incentives

Performance Shares. Performance shares consist of the grant by the Company to an eligible employee of a contingent right to receive shares of common stock. Performance shares shall be paid in shares of common stock to the extent performance objectives set forth in the grant are achieved. The number of shares granted and the performance criteria are determined by the Committee.

Stock Options. The Committee may grant non-qualified and incentive stock options to eligible employees to purchase shares of common stock from the Company. The 2003 Plan confers on the Committee discretion, with respect to any such stock option, to determine the term of each option, the time or times during its term when the option becomes exercisable and the number and purchase price of the shares subject to the option.

Stock Appreciation Rights. A stock appreciation right or SAR is a right to receive, without payment to the Company, a number of shares, cash or any combination thereof, the amount of which is equal to the aggregate amount of the appreciation in the shares of common stock as to which the SAR is exercised. For this purpose, the “appreciation” in the shares consists of the amount by which the fair market value of the shares of common stock on the exercise date exceeds (a) in the case of an SAR related to a stock option, the purchase price of the shares under the option or (b) in the case of an SAR granted alone, without reference to a related stock option, an amount determined by the Committee at the time of grant. The Committee has the discretion to determine the number of shares as to which an SAR will relate as well as the duration and exercisability of an SAR.

Stock Awards. Stock awards consist of the transfer by the Company to an eligible employee of shares of common stock, without payment, as additional compensation for services to the Company. The number of shares transferred pursuant to any stock award is determined by the Committee.

Restricted Stock. Restricted stock consists of the sale or transfer by the Company to an eligible employee of one or more shares of common stock that are subject to restrictions on their sale or other transfer by the employee which restrictions will lapse after a period of time as determined by the Committee. The price at which restricted stock will be sold will be determined by the Committee, and it may vary from time to time and among employees and may be less than the fair market value of the shares at the date of sale. Subject to these restrictions and the other requirements of the 2003 Plan, a participant receiving restricted stock shall have all of the rights of a stockholder as to those shares.

Transferability of Incentives

Incentives granted under the 2003 Plan may not be transferred, pledged or assigned by the holder thereof except, in the event of the holder’s death, by will or the laws of descent and distribution to the limited extent provided in the 2003 Plan or the Incentive, or pursuant to a qualified domestic relations order as defined by the Internal Revenue Code of 1986, as amended (“the Code”) or Title I of the Employee Retirement Income Security Act, or the rules hereunder. However, stock options may be transferred by the holder thereof to the holder’s spouse, children, grandchildren or parents (collectively, the “Family Members”), to trusts for the benefit of Family Members, to partnerships or limited liability companies in which Family Members are the only partners or stockholders, or to entities exempt from federal income taxation pursuant to Section 501(c)(3) of the Code.

Amendment of the 2003 Plan

The Board of Directors may amend or discontinue the 2003 Plan at any time. However, no such amendment or discontinuance may adversely change or impair a previously granted Incentive without the consent of the recipient thereof. Certain 2003 Plan amendments require stockholder approval, including amendments which would increase the maximum number of shares of Common Stock which may be issued to all participants under the 2003 Plan, change or expand the types of Incentives that may be granted under the 2003 Plan, change the class of persons eligible to receive Incentives under the 2003 Plan, or materially increase the benefits accruing to participants under the 2003 Plan.

Effect of Sale, Merger, Exchange or Liquidation

Unless otherwise provided in the agreement for an Incentive, in the event of an acquisition of the Company through the sale of substantially all of the Company's assets or through a merger, exchange, reorganization or liquidation of the Company or a similar event as determined by the Committee (collectively a "transaction"), the Committee shall be authorized, in its sole discretion, to take any and all action it deems equitable under the circumstances, including but not limited to:

- (1) Terminating the 2003 Plan and all Incentives and (i) granting the holders of outstanding vested options, in lieu of any shares of common stock they would be entitled to receive under such options, such stock, securities or assets, including cash, as would have been paid to such participants if their options had been exercised and such holder had received common stock immediately prior to such transaction (with appropriate adjustment for the exercise price, if any), (ii) granting the holders of performance shares and/or SARs that entitle the participant to receive common stock, in lieu of any shares of common stock each participant was entitled to receive as of the date of the transaction pursuant to the terms of such Incentive, if any, such stock, securities or assets, including cash, as would have been paid to such participant if such common stock had been issued to and held by the participant immediately prior to such transaction; and (iii) treating holders of any Incentive which does not entitle the participant to receive common stock in an equitable manner as determined by the Committee;
- (2) Providing that participants holding outstanding vested common stock-based Incentives shall receive, with respect to each share of common stock issuable pursuant to such Incentives as of the effective date of any such transaction, at the determination of the Committee, cash, securities or other property, or any combination thereof, in an amount equal to the excess, if any, of the fair market value of such common stock on a date within ten days prior to the effective date of such transaction over the option price or other amount owed by a participant, if any, and that such Incentives shall be cancelled, including the cancellation without consideration of all options that have an exercise price below the per share value of the consideration received by the Company in the transaction;
- (3) Providing that the 2003 Plan (or a replacement plan) shall continue with respect to Incentives not cancelled or terminated as of the effective date of such transaction and provide to participants holding such Incentives the right to earn their respective Incentives on a substantially equivalent basis (taking into account the transaction and the number of shares or other equity issued by such successor entity) with respect to the equity of the entity succeeding the Company by reason of such transaction; and
- (4) Providing that all unvested, unearned or restricted Incentives, including but not limited to restricted stock for which restrictions have not lapsed as of the effective date of such transaction, shall be void and deemed terminated, or, in the alternative, for the acceleration or waiver of any vesting, earning or restrictions on any Incentive.

In addition, the Committee may restrict the rights of participants in the event of a transaction to the extent necessary to comply with Section 16(b) of the Securities Exchange Act of 1934, the Internal Revenue Code or any other applicable law or regulation.

Federal Income Tax Consequences

The following discussion sets forth certain United States income tax considerations in connection with the ownership of common stock. These tax considerations are stated in general terms and are based on the Internal Revenue Code of 1986 in its current form and current judicial and administrative interpretations thereof. This discussion does not address state or local tax considerations with respect to the ownership of common stock. Moreover, the tax considerations relevant to ownership of the common stock may vary depending on a holder's particular status.

An employee who receives restricted stock or performance shares subject to restrictions which create a "substantial risk of forfeiture" (within the meaning of section 83 of the Code) will normally realize taxable income on the date the shares become transferable or are no longer subject to substantial risk of forfeiture or on the date of their earlier disposition. The amount of such taxable income will be equal to the amount by

which the fair market value of the shares of common stock on the date such restrictions lapse (or any earlier date on which the shares are disposed of) exceeds their purchase price, if any. An employee may elect, however, to include in income in the year of purchase or grant the excess of the fair market value of the shares of common stock (without regard to any restrictions) on the date of purchase or grant over its purchase price. The Company will be entitled to a deduction for compensation paid in the same year and in the same amount as income is realized by the employee.

An employee who receives a stock award under the 2003 Plan consisting of shares of common stock will realize ordinary income in the year of the award in an amount equal to the fair market value of the shares of common stock covered by the award on the date it is made, and the Company will be entitled to a deduction equal to the amount the employee is required to treat as ordinary income. An employee who receives a cash award will realize ordinary income in the year the award is paid equal to the amount thereof, and the amount of the cash will be deductible by the Company.

When a non-qualified stock option granted pursuant to the 2003 Plan is exercised, the employee will realize ordinary income measured by the difference between the aggregate purchase price of the shares of common stock as to which the option is exercised and the aggregate fair market value of shares of the common stock on the exercise date, and the Company will be entitled to a deduction in the year the option is exercised equal to the amount the employee is required to treat as ordinary income.

Options that qualify as incentive stock options are entitled to special tax treatment. Under existing federal income tax law, if shares purchased pursuant to the exercise of such an option are not disposed of by the optionee within two years from the date of

granting of the option or within one year after the transfer of the shares to the optionee, whichever is longer, then (i) no income will be recognized to the optionee upon the exercise of the option; (ii) any gain or loss will be recognized to the optionee only upon ultimate disposition of the shares and, assuming the shares constitute capital assets in the optionee's hands, will be treated as long-term capital gain or loss; (iii) the optionee's basis in the shares purchased will be equal to the amount of cash paid for such shares; and (iv) the Company will not be entitled to a federal income tax deduction in connection with the exercise of the option. The Company understands that the difference between the option price and the fair market value of the shares acquired upon exercise of an incentive stock option will be treated as an "item of tax preference" for purposes of the alternative minimum tax. In addition, incentive stock options exercised more than three months after retirement are treated as non-qualified options.

The Company further understands that if the optionee disposes of the shares acquired by exercise of an incentive stock option before the expiration of the holding period described above, the optionee must treat as ordinary income in the year of that disposition an amount equal to the difference between the optionee's basis in the shares and the lesser of the fair market value of the shares on the date of exercise or the selling price. In addition, the Company will be entitled to a deduction equal to the amount the employee is required to treat as ordinary income.

If the exercise price of an option is paid by surrender of previously owned shares, the basis of the shares surrendered is carried over to the shares received in replacement of the previously owned shares. If the option is a nonstatutory option, the gain recognized on exercise is added to the basis. If the option is an incentive stock option, the optionee will recognize gain if the shares surrendered were acquired through the exercise of an incentive stock option and have not been held for the applicable holding period. This gain will be added to the basis of the shares received in replacement of the previously owned shares.

When a stock appreciation right granted pursuant to the 2003 Plan is exercised, the employee will realize ordinary income in the year the right is exercised equal to the value of the appreciation which the employee is entitled to receive pursuant to the formula described above, and the Company will be entitled to a deduction in the same year and in the same amount.

The 2003 Plan is intended to enable the Company to provide certain forms of performance-based compensation to executive officers that will meet the requirements for tax deductibility under Section 162(m) of the Code. Section 162(m) provides that, subject to certain exceptions, the Company may not deduct compensation paid to any one of certain executive officers in excess of \$1 million in any one year. Section 162(m) excludes certain performance-based compensation from the \$1 million limitation.

The discussion set forth above does not purport to be complete analysis of the potential tax consequences relevant to recipients of options or to the Company or to describe tax consequences based on particular circumstances. It is based on federal income tax and interpretational authorities as of the date of this proxy statement, which are subject to change at any time.

Proposed Amendment to 2003 Plan

If approved by the Company's stockholders, the proposed amendment to the 2003 Plan will increase the maximum number of shares of the Company's common stock that are authorized for issuance under the 2003 Plan from 4,002,436 shares to 6,002,436 shares, subject to adjustment in the event of a recapitalization or other corporate restructuring. Of this amount, 4,975,817 would be available for issuance under existing Incentive grants that remain outstanding or future Incentive grants, representing approximately 22.8% of the outstanding shares of the Company's common stock on the Record Date. The overhang calculation as of the Record Date assuming the increased number of shares reserved for issuance under the 2003 Plan would be approximately 18.5%.

Securities Authorized for Issuance under Equity Compensation Plans

The 2003 Plan, which is currently the Company's only equity compensation plan, was approved by the ZIOPHARM, Inc. stockholders. The following table sets forth certain information as of December 31, 2008 with respect to the 2003 Plan:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options (A)	Weighted-Average Exercise Price of Outstanding Options (B)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (A)) (C)
Equity compensation plans approved by stockholders:			
2003 Stock Option Plan	2,378,089	\$ 3.43	597,728
Total:	2,378,089	\$ 3.43	597,728
Equity compensation plans not approved by stockholders:			
None	—	\$ —	—
Total:	—	\$ —	—

Our Board of Directors and management are committed to the quality, integrity and transparency of the financial reports. Independent auditors play an important part in our system of financial control. In accordance with the duties set forth in its written charter, the audit committee of our Board of Directors has appointed Vitale, Caturano & Company, P.C. as our independent registered public accounting firm for the fiscal year ending December 31, 2009. A representative of Vitale, Caturano & Company, P.C. is not expected to attend this year's annual meeting and will not be available to make statements and respond to questions from stockholders.

If the stockholders do not ratify the appointment of Vitale, Caturano & Company, P.C., the audit committee may reconsider its selection, but is not required to do so. Notwithstanding the proposed ratification of the appointment of Vitale, Caturano & Company, P.C. by the stockholders, the audit committee, in its discretion, may direct the appointment of a new independent registered public accounting firm at any time during the year without notice to, or the consent of, the stockholders, if the audit committee determines that such a change would be in the Company's best interests and the best interests of its stockholders.

Vitale, Caturano & Company, P.C. has notified the Company that effective May 1, 2009, they will be changing their name to Caturano and Company, P.C.

Fees Billed to Company by Its Independent Registered Public Accounting Firm

Vitale, Caturano & Company, P.C. served as the Company's independent registered public accounting firm for each of the fiscal years ended December 31, 2008 and 2007. The following table presents fees billed by Vitale, Caturano & Company, P.C. during such fiscal years.

	For the Fiscal Year Ended December 31,	
	2008	2007
Audit Fees ⁽¹⁾	\$ 106,136	\$ 103,225
Audit Related Fees ⁽²⁾	—	—
Tax Fees ⁽³⁾	—	10,000
All Other Fees	—	—
Total	\$ 106,136	\$ 113,225

(1) Represents amounts related to the audit of the Company's annual financial statements and the review of the Company's financial statements included in the Company's quarterly reports on Form 10-Q.

(2) Audit-related fees represent amounts reasonably related to the performance of the audit or review of the Company's financial statements but are not reported under the Audit Fees category.

(3) Tax fees consist of fees for tax compliance, tax advice and tax planning.

The audit committee of the Board of Directors has reviewed the services provided by Vitale, Caturano & Company, P.C. during the fiscal year ended December 31, 2008 and the amounts billed for such services. After consideration, the audit committee has determined that the receipt of these fees by Vitale, Caturano & Company, P.C. is compatible with the provision of independent audit services. The audit committee has discussed these services and fees with Vitale, Caturano & Company, P.C. and Company management to determine that they are appropriate under the rules and regulations concerning auditor independence promulgated by the U.S. Securities and Exchange Commission to implement the Sarbanes-Oxley Act of 2002, as well as under guidelines of the American Institute of Certified Public Accountants.

Pre-Approval Policy

The audit committee charter provides that all audit and non-audit accounting services that are permitted to be performed by the Company's independent registered public accounting firm under applicable rules and regulations must be pre-approved by the audit committee or by designated independent members of the audit committee, other than with respect to de minimis exceptions permitted under Section 202 of the Sarbanes-Oxley Act of 2002. Following adoption of the audit committee charter, all services performed by Vitale, Caturano & Company, P.C. have been pre-approved in accordance with the charter.

Prior to or as soon as practicable following the beginning of each fiscal year, a description of audit, audit-related, tax, and other services expected to be performed by the independent registered public accounting firm in the following fiscal year is presented to the audit committee for approval. Following such approval, any requests for audit, audit-related, tax, and other services not presented and pre-approved must be submitted to the audit committee for specific pre-approval and cannot commence until such approval has been granted. Normally, pre-approval is provided at regularly scheduled meetings. However, the authority to grant specific pre-approval between meetings, as necessary, may be delegated to one or more members of the audit committee who are independent directors. In the event such authority is so delegated, the full audit committee must be updated at the next regularly scheduled meeting with respect to any services that were granted specific pre-approval by delegation. During fiscal year 2008, the audit committee has functioned in conformance with these procedures.

Board of Directors and Committees

Board of Directors

The Company's Board of Directors is currently comprised of eight directors, each of which has been nominated for re-election to the Board of Directors (see Proposal One). The Board has determined that Dr. Murray Brennan, Mr. James A. Cannon, Senator Wyche Fowler, Jr., Mr. Gary S. Fragin, Mr. Timothy McNerney and Dr. Michael Weiser are "independent directors," as such term is defined in Section 4200(a)(15) of National Association of Securities Dealers' listing standards.

The Board of Directors held five meetings during fiscal year 2008 and took action by written consent on two occasion(s). The Board of Directors has an audit committee, a compensation committee and a nominating and corporate governance committee. During the 2008 fiscal year, each director attended at least 75% of the meetings of the Board of Directors and the committees on which such director served. Although the Company has no formal policy regarding directors' attendance at the Company's annual stockholders meetings, the Company encourages such attendance by members of the Board of Directors. Four member(s) of the Board of Directors attended the Company's 2008 annual stockholders meeting.

The current members of the committees are as follows:

Director	Audit	Compensation	Nominating and Corporate Governance
Murray Brennan		× (Chair)	×
James A. Cannon	× (Chair)		
Gary S. Fragin	×		
Wyche Fowler, Jr., J.D.	×		×
Timothy McNerney			× (Chair)
Michael Weiser, M.D., Ph.D.		×	

Audit Committee of the Board of Directors

The Company maintains a three member audit committee of the Board of Directors. The current members of the audit committee are Mr. James A. Cannon, who serves as the committee's Chairman, and Mr. Gary S. Fragin and Senator Wyche Fowler, Jr. The audit committee operates under a written charter adopted by the Board of Directors, a copy of which is available on the Company's website at www.ziopharm.com. As set forth in the charter, the primary responsibility of the audit committee is to oversee the Company's financial reporting processes and internal control system on behalf of the Board of Directors. In that regard, the audit committee is, among other things, responsible for the appointment, compensation, retention and oversight of the work performed by the independent registered public accounting firm employed by the Company.

Each member of the audit committee is an "independent director," as such term is defined in Section 4200(a)(15) of National Association of Securities Dealers' listing standards, and meets the criteria for independence set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended. The Board of Directors has also determined that each of the audit committee members is able to read and understand fundamental financial statements and that at least one member of the audit committee has past employment experience in finance or accounting. The Board of Directors has determined that at least one member of the audit committee, Mr. James A. Cannon, is an "audit committee financial expert," as that term is defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Exchange Act of 1934, as amended. Mr. Cannon's relevant experience includes his current service as the Chief Financial Officer of BBDO Worldwide, a position he has held for the past 20 years, and his past service as director of financial operations of the Omnicom Group.

The audit committee held four meetings during fiscal year 2008, during which the audit committee held discussions with financial management and representatives from the independent registered public accounting firm prior to the filing of each quarterly report on Form 10-Q and annual report on Form 10-K with the Securities and Exchange Commission.

Compensation Committee of the Board of Directors

The Company maintains a two member compensation committee of the Board of Directors. The current members of the compensation committee are Dr. Murray Brennan, who serves as the committee's Chairman, and Dr. Michael Weiser. The Board of Directors has adopted a written charter for the compensation committee, a copy of which is available on the Company's website at www.ziopharm.com. The compensation committee reviews the Company's remuneration policies and practices and makes recommendations to the Board of Directors in connection with all compensation matters affecting the executive officers of the Company.

Each member of the compensation committee is an "independent director," as such term is defined in Section 4200(a)(15) of National Association of Securities Dealers' listing standards, and meets the criteria for independence set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended.

The Compensation Committee held one formal meeting during fiscal year 2008. In addition (and without taking action), the committee members held several informal discussions throughout the year related to executive compensation matters that included individual employment arrangements as well as executive compensation in general in the context of balancing the goals of prudent and efficient cash utilization with retention of key employees.

Compensation Committee Processes and Procedures for the Consideration and Determination of Executive Officer and Director Compensation

Pursuant to the authority granted under its written charter, the compensation committee is responsible for reviewing, approving and communicating to the Board of Directors all decisions on major compensation plans and other related programs of the Company. As it relates to the compensation of our Chief Executive Officer, the compensation committee is charged with, among other things, annually reviewing and approving Company goals and objectives relevant to our Chief Executive Officer's

compensation level, evaluating our Chief Executive Officer's performance in light of such goals and objectives and recommending to the Board of Directors the appropriate amount of salary, bonus and equity incentive awards to be paid and/or awarded to our Chief Executive Officer. The compensation committee is also responsible for approving the compensation of the Company's other executive officers, reviewing and approving executive employment agreements and, where applicable, severance arrangements, and granting equity incentive awards under the Company's 2003 Stock Option Plan.

In making compensation recommendations and determinations, the compensation committee has taken into account the compensation levels of executives in similar capacities and industries and has established levels of salary, bonus and equity incentive compensation based in large part on that review. Historically, compensation decisions have been based on size-adjusted data obtained through an independent third-party survey, notably the Radford Biotechnology Survey. This data was compiled and presented along with recommendations to the Board by the Company. Individual discretionary bonus determinations have taken into account an executive officer's position and level of responsibility, along with the executive's performance during the previous fiscal year. Awards of equity incentive compensation, which to date have been comprised of stock options and restricted stock, have taken into account the executive officer's and the Company's performance during the previous fiscal year and his or her potential to influence the Company's operations in the future. In 2008, the compensation committee did not base its considerations on any single performance factor nor has it specifically assigned relative weights to factors, but rather has considered a mix of factors and evaluate the Company's and the individual's performance against that mix.

During 2008, the compensation committee noted, among other things, that the goals of compensation, and especially executive compensation, should reflect the Company's objective of conserving cash in the extraordinarily difficult current capital market environment, a factor, the committee acknowledged, that would modify to some degree the criteria used to assess executive performance. Consequently, the Board of Directors, upon

the recommendation of the compensation committee, has directed the Company's management to (i) eliminate year-end cash bonuses; (ii) eliminate annual salary increases; and (iii) use grants of restricted stock and stock options to reward good performance until such time as the capital markets become less restrictive.

Nominating and Corporate Governance Committee of the Board of Directors

The Company maintains a three member nominating and corporate governance committee of the Board of Directors. The current members of the nominating and corporate governance committee are Mr. Timothy McInerney, who serves as the committee's Chairman, and Dr. Murray Brennan and Senator Wyche Fowler, Jr. The nominating and corporate governance committee operates under a written charter adopted by the Board of Directors and was amended and restated as of September 10, 2008. A copy of the charter, entitled the First Amended and Restated Corporate Governance and Nominating Committee Charter is available at the Company's website at www.ziopharm.com. As set forth in the charter, the primary responsibility of the nominating and corporate governance committee is to consider and make recommendations to the Board of Directors concerning the appropriate size, function and needs of the Board of Directors and its committees. In that regard, the nominating and corporate governance committee is, among other things, responsible for establishing criteria for membership on Board of Directors, recruiting and recommending candidates to fill newly created or vacant positions on the Board of Directors and reviewing any candidates recommended by stockholders. In addition, the nominating and corporate governance committee evaluates and assesses the performance of the Board of Directors as a whole and its committees. During fiscal year 2008, and in furtherance of these responsibilities, the nominating and corporate governance committee initiated procedures for director self-evaluation and peer review, the results of which were then reviewed by the full Board of Directors as part of a discussion regarding overall corporate governance.

Each member of the nominating and corporate governance committee is an "independent director," as such term is defined in Section 4200(a)(15) of National Association of Securities Dealers' listing standards, and meets the criteria for independence set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended. The nominating and corporate governance committee held two meetings during fiscal year 2008.

The nominating and corporate governance committee (or a subcommittee thereof) recruits and considers director candidates and presents qualified candidates to the full Board of Directors for consideration. Qualified candidates will be considered without regard to race, color, religion, sex, ancestry, national origin or disability and the nominating and corporate governance committee will consider director candidates recommended by security holders.

The nominating and corporate governance committee will consider each candidate's general business and industry experience, his or her ability to act on behalf of stockholders, overall Board of Directors diversity, potential concerns regarding independence or conflicts of interest and other factors relevant in evaluating Board of Directors nominees. If the nominating and corporate governance committee approves a candidate for further review following an initial screening, the nominating and corporate governance committee will establish an interview process for the candidate. Generally, the candidate will meet with at least a majority of the members of the nominating and corporate governance committee, along with the Company's Chief Executive Officer. Contemporaneously with the interview process, the nominating and corporate governance committee will conduct a comprehensive conflicts-of-interest assessment of the candidate. The nominating and corporate governance committee will consider reports of the interviews and the conflicts-of-interest assessment to determine whether to recommend the candidate to the full Board of Directors. The nominating and corporate governance committee will also take into consideration the candidate's personal attributes, including, without limitation, personal integrity, loyalty to the Company and concern for its success and welfare, willingness to apply sound and independent business judgment, awareness of a director's vital part in the Company's good corporate citizenship and image, time available for meetings and consultation on Company matters and willingness to assume broad, fiduciary responsibility.

Recommendations for candidates to be considered for election to the Board of Directors at the Company's annual stockholders' meeting may be submitted to the nominating and corporate governance committee by the Company's stockholders. In order to make such a recommendation, a stockholder must submit the recommendation in writing to the Chairperson of the nominating and corporate governance committee, in care of the Company's Chief Financial Officer at the Company's headquarters address, at least 120 days prior to the mailing date of the previous year's annual meeting proxy statement. To enable the nominating and corporate governance committee to evaluate the candidate's qualifications, stockholder recommendations must include the following information:

- The name and address of the nominating stockholder and of the director candidate;
- A representation that the nominating stockholder is a holder of record of the Company entitled to vote at the current year's annual meeting;
- A description of any arrangements or understandings between the nominating stockholder and the director candidate or candidates being recommended pursuant to which the nomination or nominations are to be made by the stockholder;
- A resume detailing the educational, professional and other information necessary to determine if the nominee is qualified to hold a Board position;
- Such other information regarding each nominee proposed by such stockholder as would have been required to be included in a proxy statement filed pursuant to the proxy rules of the Securities and Exchange Commission had each nominee been nominated by the Board of Directors; and
- The consent of each nominee to serve as a director of the Company if so elected.

Each of the individuals nominated for re-election to the Board of Directors pursuant to Proposal One were approved for such nomination by the nominating and corporate governance committee.

Ability of Stockholders to Communicate with the Company's Board of Directors

The Company has established means for stockholders and others to communicate with the Board of Directors. If a stockholder wishes to address a matter regarding the Company's financial statements, accounting practices or internal controls, the matter should be submitted in writing addressed to the Chairperson of the audit committee in care of the Chief Financial Officer at the Company's headquarters address. If the matter relates to the Company's governance practices, business ethics or corporate conduct, it should be submitted in writing addressed to the Chairperson of the nominating and corporate governance committee in care of the Chief Financial Officer at the Company's headquarters address. If a stockholder is unsure where to direct a communication, the stockholder may direct it in writing to the Chairperson of the audit committee, or to any one of the independent directors of the Company, in care of the Chief Financial Officer at the Company's headquarters address. All of these stockholder communications will be forwarded by the Chief Financial Officer to the addressee.

Code of Ethics

Our Board of Directors adopted a Code of Business Conduct and Ethics to be applicable to all officers, directors and employees. The Code of Business Conduct and Ethics is intended to be designed to deter wrong-doing and promote honest and ethical behavior, full, fair, timely, accurate and understandable disclosure, and compliance with applicable laws. The Code of Ethics is available on our website at www.ziopharm.com and a copy may be obtained without charge upon written request to the Company's President at the Company's headquarters address.

Report of the Audit Committee*

The audit committee has reviewed the Company's audited financial statements for the last fiscal year, and has discussed them with management and the Company's independent registered public accounting firm.

Specifically, the audit committee has discussed with its independent registered public accounting firm the matters required to be discussed by the Statement on Auditing Standards No. 61, as amended, as adopted by the Public Company Accounting Oversight Board in Rule 4200T.

The audit committee has received and reviewed the written disclosures and the letter from its independent registered public accounting firm required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firms communications with the audit committee concerning independence, and has discussed with the Company's independent registered public accounting firm their independence.

The audit committee, based on the review and discussions described above with management and the Company's independent registered public accounting firm, has recommended to the Board of Directors that the audited financial statements for the fiscal year ended December 31, 2008 be included in the Company's annual report on Form 10-K for such fiscal year for filing with the Securities and Exchange Commission.

As reported:

James Cannon
Wyche Fowler, Jr.
Gary S. Fragin

* This report is not "soliciting material," is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference in any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of

VOTING SECURITIES AND PRINCIPAL HOLDERS THEREOF

The following table summarizes certain information regarding the beneficial ownership (as such term is defined in Rule 13d-3 under the Securities Exchange Act of 1934) of our outstanding common stock as of April 14, 2009 by (i) each person known by us to be the beneficial owner of more than 5% of our outstanding common stock, (ii) each of our directors, (iii) each of the named executives, and (iv) all current executive officers and directors as a group. Except as indicated in the footnotes below, the persons listed below possess sole voting and investment power with respect to their shares. Except as otherwise indicated, the address of the persons listed below is 1180 Avenue of the Americas, 19th Floor, New York, NY 10036.

Name and Address of Beneficial Owner	Shares of Common Stock Beneficially Owned (#) ⁽¹⁾	Percentage of Common Stock Beneficially Owned (%)
Jonathan Lewis, M.D., Ph.D.	945,369 ⁽²⁾	4.28%
Richard E. Bagley	457,823 ⁽³⁾	2.10%
Brian Schwartz, M.D.	0	*
Murray Brennan, M.D.	66,696 ⁽⁴⁾	*
James A. Cannon	66,696 ⁽⁴⁾	*
Senator Wyche Fowler, Jr., J.D.	66,696 ⁽⁴⁾	*
Gary S. Fragin	66,696 ⁽⁴⁾	*
Timothy McInerney	267,144 ⁽⁵⁾	1.24%
Michael Weiser, M.D., Ph.D.	204,026 ⁽⁶⁾	*
All current executive officers and directors as a group	2,140,696 ⁽⁷⁾	9.32%
Essex Woodlands Health Ventures Fund VI LP 1001 Woodloch Forest Drive, Suite 175 The Woodlands, TX 77380	2,296,652 ⁽⁸⁾	10.55%
ProQuest Investments III, LP 90 Nassau Street, 5 th Floor Princeton, NJ 08542	2,092,885 ⁽⁹⁾	9.59%
PTV Sciences II, L.P. 221 West 6 th Street, Suite 700 Austin, TX 78701	1,837,320 ⁽¹⁰⁾	8.47%
ProCific/Abu Dhabi Investment Authority P.O. Box 3600 Abu Dhabi, United Arab Emirates	1,403,888 ⁽¹¹⁾	6.47%
LBI Group, Inc. 399 Park Avenue New York, NY 10022	1,467,607 ⁽¹²⁾	6.76%
Mibars, LLC 365 West End Avenue New York, NY 10024	1,214,456 ⁽¹³⁾	5.68%
Millennium Partners, L.P. 666 Fifth Avenue New York, NY 10103	1,283,074 ⁽¹⁴⁾	5.94%
Henderson Global Investors (Holdings) plc 201 Bishopsgate London EC2M 3AE, United Kingdom	1,198,757 ⁽¹⁵⁾	5.58%

* Less than 1%

(1) Beneficial ownership is determined in accordance with SEC rules, beneficial ownership includes any shares as to which the security or stockholder has sole or shared voting power or investment power, and also any shares which the security or stockholder has the right to acquire within 60 days of the date hereof, whether through the exercise or conversion of any stock option, convertible security, warrant or

- (2) Includes 689,919 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days. Also includes 66,667 shares of restricted stock which are subject to transfer and forfeiture restrictions that lapse in two annual installments on January 8, 2010 and 2011, and 150,000 shares of restricted stock which are subject to transfer and forfeiture restrictions that lapse in their entirety on December 3, 2009.
- (3) Includes 382,823 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days. Also includes 50,000 shares of restricted stock which are subject to transfer and forfeiture restrictions that lapse in their entirety on December 3, 2009.
- (4) Includes 51,696 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (5) Includes 137,243 shares issuable upon the exercise of warrants and 51,696 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (6) Includes 53,885 shares issuable upon the exercise of warrants and 51,696 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (7) Includes 191,128 shares issuable upon the exercise of warrants and 1,382,918 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (8) Based on the most recent 13G filed with the Securities and Exchange Commission on March 12, 2007. Includes 382,776 shares issuable upon the exercise of warrants that are currently exercisable or will become exercisable within the next 60 days.
- (9) Based on the most recent Schedule 13G filed with the Securities and Exchange Commission on February 11, 2008. Includes 438,807 shares issuable upon the exercise of warrants that are currently exercisable or will become exercisable within the next 60 days.
- (10) Based on the most recent Schedule 13G filed with the Securities and Exchange Commission on March 12, 2007. Includes 306,220 shares issuable upon the exercise of warrants that are currently exercisable or will become exercisable within the next 60 days.
- (11) Based on the most recent Schedule 13G filed with the Securities and Exchange Commission on May 15, 2006. Includes 323,974 shares issuable upon the exercise of warrants that are currently exercisable or will become exercisable within the next 60 days. Procific, which is the actual owner of the referenced securities, is a wholly owned subsidiary of Abu Dhabi Investment Authority. Pursuant to the rules and regulations of the Securities and Exchange Commission, Abu Dhabi Investment Authority may be deemed to be the beneficial owner of the securities owned by Procific.
- (12) Based on the most recent Schedule 13G filed with the Securities and Exchange Commission on February 13, 2008. Includes 316,596 shares issuable upon the exercise of warrants that are currently exercisable or will become exercisable within the next 60 days.
- (13) Based on the most recent Form 3 filed with the Securities and Exchange Commission on September 23, 2005. Mibars, Inc. is a wholly-owned subsidiary of Paloma International L.P.; S. Donald Sussman, the controlling person of Paloma International L.P., may be deemed to beneficially own the shares of common stock beneficially owned by Paloma International L.P.
- (14) Based on the most recent Schedule 13D filed with the Securities and Exchange Commission on February 27, 2007. Includes 206,145 shares issuable upon the exercise of warrants that are currently exercisable or will become exercisable within the next 60 days. Such warrants contain a “blocker” provision that limits the shareholder’s ability exercise such warrants to the extent that such exercise would cause the shareholder’s beneficial ownership in the Company to exceed 9.99% with respect to 129,590 warrant shares and 4.99% with respect to 76,555 warrant shares. The calculation of beneficial ownership not take into account the effect of such “blocker” provisions.
- (15) Based on the most recent Schedule 13G filed with the Securities and Exchange Commission on February 19, 2009. Includes 102,633 shares issuable upon the exercise of warrants that are currently exercisable or will become exercisable within the next 60 days. Henderson Global Investors (Holdings) plc (“Henderson Holdings”), a wholly-owned subsidiary of Henderson Group plc (“Henderson Group”), wholly owns Henderson Fund Management Plc, Henderson Investment Management Limited and Henderson Global Investors Limited (together, the “Managers”), each of whom may be deemed to be the beneficial owner of the referenced securities as a result of acting as investment manager to various investment companies (the “Funds”). Henderson Group, through its control of Henderson Holdings, and Henderson Holdings, through its control of the Managers, have shared power to vote and dispose of the Company’s shares held by the Funds.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

In connection with our offering of common stock and warrants to certain institutional accredited investors that was completed on February 23, 2007, pursuant to which the Company received gross proceeds of approximately \$30.9 million, the Company engaged Paramount BioCapital, Inc. (“Paramount”) as a co-placement agent pursuant to a placement agency agreement dated February 15, 2007. Pursuant to the placement agency agreement and in consideration for services rendered in connection with the offering, the Company paid Paramount aggregate cash commissions of \$1,019,250 and issued 5-year warrants to Paramount and its designees to purchase an aggregate of 97,536 shares at an exercise price of \$5.75 per share. Timothy McInerney, who serves as a director of the Company, was a full-time employee of Paramount until March 2007. Dr. Michael Weiser, who also serves as a director of the Company, was a full-time employee serving as Director of Research of Paramount until December 2006.

During the fiscal year ended December 31, 2008, we did not engage in reportable related party transactions and no such transactions are currently proposed.

In accordance with its audit committee charter, the Company’s audit committee is responsible for reviewing policies and procedures with respect to related party transactions required to be disclosed pursuant to Item 404 of the Securities and Exchange

Commission's Regulation S-K (including transactions between the Company and its officers and directors, or affiliates of such officers or directors), and approving the terms and conditions of such related party transactions.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires the Company's officers and directors, and persons who own more than ten percent of a registered class of the Company's equity securities, to file reports of ownership and changes in ownership with the Securities and Exchange Commission. Officers, directors and greater-than-ten-percent stockholders are required by Securities and Exchange Commission regulations to furnish the Company with copies of all Section 16(a) forms they file.

Based solely on review of the copies of the Forms 3, 4 and 5 (and amendments thereto) that we received with respect to transactions during fiscal 2008, we believe that the Company's officers, directors and greater-than-ten-percent beneficial owners complied with all applicable Section 16(a) filing requirements, except as listed in the table below.

Name of Filer	Description of Transaction	Transaction Date	Filing Date
Gary S. Fragin	Stock option grant	12/12/2007	1/08/2008
Jonathan Lewis	Stock grant	1/18/2008	1/23/2008
Richard E. Bagley	Stock option grant	6/25/2008	7/01/2008

PROPOSALS OF STOCKHOLDERS

Any stockholder who desires to submit a proposal for action by the stockholders at the next annual stockholders' meeting, which is the 2010 annual meeting following the Company's 2009 fiscal year, must submit that proposal in writing to the Chief Financial Officer of the Company at the Company's corporate headquarters by December 21, 2009 to have the proposal included in the Company's proxy statement for that meeting. Due to the complexity of the respective rights of the stockholders and the Company in this area, any stockholder desiring to propose such an action is advised to consult with his or her legal counsel with respect to such rights. The Company suggests that any such proposal be submitted to the Company by certified mail, return receipt requested.

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DISCRETIONARY PROXY VOTING AUTHORITY / UNTIMELY STOCKHOLDER PROPOSALS

Rule 14a-4 promulgated under the Securities Exchange Act of 1934 governs the Company's use of its discretionary proxy voting authority with respect to a stockholder proposal that the stockholder has not sought to include in the Company's proxy statement. Rule 14a-4 provides that if a proponent of a proposal fails to notify the Company at least 45 days prior to the month and day of mailing of the prior year's proxy statement, management proxies will be allowed to use their discretionary voting authority when the proposal is raised at the meeting, without any discussion of the matter.

With respect to the Company's next annual stockholders' meeting, the 2010 annual meeting, if the Company is not provided notice of a stockholder proposal, which the stockholder has not previously sought to include in the Company's proxy statement, by March 6, 2010, the management proxies will be allowed to use their discretionary authority as outlined above.

SOLICITATION

The Company will bear the cost of preparing, assembling and mailing the proxy, proxy statement, annual report and other material which may be sent to the stockholders in connection with this solicitation. Brokerage houses and other custodians, nominees and fiduciaries may be requested to forward soliciting material to the beneficial owners of stock, in which case they will be reimbursed by the Company for their expenses in doing so. Proxies are being solicited primarily by mail, but, in addition officers and regular employees of the Company may solicit proxies personally, by telephone, by special letter, or via the Internet.

The Board of Directors does not intend to present to the meeting any other matter not referred to above and does not presently know of any matters that may be presented to the meeting by others. However, if other matters come before the meeting, it is the intent of the persons named in the enclosed proxy to vote the proxy in accordance with their best judgment.

By Order of the Board of Directors

ZIOPHARM Oncology, Inc.



Richard E. Bagley, President,
Chief Operating Officer and Chief Financial Officer

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ZIOPHARM ONCOLOGY, INC.

June 4, 2009

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:

The Notice of Meeting, Proxy Statement, Proxy Card are available at -<http://www.vfnotice.com/ziopharm/>

Please sign, date and mail your proxy card in the envelope provided as soon as possible.

↓ Please detach along perforated line and mail in the envelope provided. ↓

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THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" PROPOSALS 1, 2 AND 3.
PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE

1. Proposal to elect eight directors for a term of one year.

- FOR ALL NOMINEES
- WITHHOLD AUTHORITY FOR ALL NOMINEES
- FOR ALL EXCEPT (See instructions below)

- NOMINEES:**
- Jonathan Lewis, M.D., Ph.D.
 - Richard E. Bagley
 - Murray Brennan, M.D.
 - James Cannon
 - Senator Wyche Fowler, Jr., J.D.
 - Gary S. Fragin
 - Timothy McInerney
 - Michael Weiser, M.D., Ph.D.

- 2. Proposal to approve an amendment to the Company's 2003 Stock Option Plan to increase the number of shares of common stock reserved for issuance thereunder from 4,002,436 to 6,002,436. FOR AGAINST ABSTAIN
- 3. Proposal to ratify the appointment of Vitale, Caturano & Company, P.C. as the independent registered public accounting firm of the Company for fiscal 2009. FOR AGAINST ABSTAIN
- 4. Upon such other business as may properly come before the meeting or any adjournments thereof.

The undersigned hereby revokes all previous proxies relating to the shares covered hereby and acknowledges receipt of the Notice and Proxy Statement relating to the Annual Meeting of Stockholders.

INSTRUCTION: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here: ●

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS. When properly executed, this proxy will be voted on the proposals set forth herein as directed by the stockholder, but if no direction is made in the space provided, this proxy will be voted **FOR** the election of all nominees for director; **FOR** approval of the amendment to the Company's 2003 Stock Option Plan; and **FOR** ratification of Vitale, Caturano & Company, Ltd.'s appointment as independent registered public accounting firm for fiscal 2009.

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Stockholder _____ Date: _____ Signature of Stockholder _____ Date: _____
Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

PROXY CARD
ZIOPHARM ONCOLOGY, INC.

Proxy for Annual Meeting of Stockholders

The undersigned, a stockholder of ZIOPHARM Oncology, Inc., hereby appoints Jonathan Lewis and Richard E. Bagley, and each of them, as proxies, with full power of substitution, to vote on behalf of the undersigned the number of shares which the undersigned is then entitled to vote, at the annual stockholders' meeting of ZIOPHARM Oncology, Inc. to be held at Saybrook Room Yale Club, 50 Vanderbilt Avenue, New York, New York 10017, on Thursday, June 4, 2009, at 9:00 a.m. Eastern time, and at any and all adjournments thereof, with all the powers which the undersigned would possess if personally present, upon:

(Continued, and TO BE COMPLETED AND SIGNED, on the reverse side.)