

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

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SCHEDULE 14A

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

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Filed by the Registrant  x  
Filed by a Party other than the Registrant  o

Check the appropriate box:

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

**ZIOPHARM Oncology, Inc.**

(Name of Registrant as Specified In Its Charter)

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(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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

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

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(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):

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- Fee paid previously with preliminary materials.
- 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:

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

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(3) Filing Party:

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(4) Date Filed:

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## **ZIOPHARM Oncology**

**ZIOPHARM Oncology, Inc.  
1180 Avenue of the Americas, 19<sup>th</sup> Floor  
New York, New York 10036**

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### **NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**

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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 the Grand Hyatt New York, 109 East 42nd Street at Grand Central Terminal, New York, NY 10017, on Wednesday, June 23, 2010, at 10:00 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 6,002,436 shares to 9,002,436 shares;
3. To ratify the appointment of Caturano and Company, P.C. as the independent registered public accounting firm of the Company for fiscal 2010; 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 May 10, 2010 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, 2009 also accompanies this Notice.

By Order of the Board of Directors

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

Approximate Date of Mailing of Proxy Materials:  
May 14, 2010

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**Important Notice Regarding the Availability of Proxy Materials for the  
Annual Meeting of Stockholders to be Held June 23, 2010**

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, 2009

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

*<http://www.amstock.com/ProxyServices/ViewMaterial.asp?CoNumber=14373>*

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

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## **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 23, 2010**

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### **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 the Grand Hyatt New York, 109 East 42nd Street at Grand Central Terminal, New York, NY 10017, on Wednesday, June 23, 2010, at 10:00 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 6,002,436 shares to 9,002,436 shares;
3. To ratify the appointment of Caturano and Company, P.C. as the independent registered public accounting firm of the Company for fiscal 2010; 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 May 14, 2010.

## 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. 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 May 10, 2010, 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 41,824,732 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.

**YOUR VOTE IS IMPORTANT. BENEFICIAL OWNERS OF SHARES HELD IN BROKER ACCOUNTS ARE ADVISED AS FOLLOWS IN CONNECTION WITH A CHANGE IN APPLICABLE RULES AS OF JANUARY 1, 2010: IF YOU DO NOT TIMELY PROVIDE INSTRUCTIONS TO YOUR BROKER, YOUR SHARES WILL NOT BE VOTED IN CONNECTION WITH THE ELECTION OF DIRECTORS.**

*Effect of Not Casting Your Vote.* If you hold your shares in street name it is critical that you cast your vote if you want it to count in the election of directors (Proposal One) and the adoption of the proposed amendment to the Company's 2003 Stock Option Plan (Proposal Two). In the past, if you held your shares in street name and you did not indicate how you wanted your shares voted in the election of directors, your bank

or broker was allowed to vote those shares on your behalf in the election of directors as they felt appropriate. Recent changes in regulation were made to take away the ability of your bank or broker to vote your uninstructed shares in the election of directors on a discretionary basis. As a result, if you hold your shares in street name and you do not instruct your bank or broker how to vote in the election of directors, no votes will be cast on your behalf. Your bank or broker will continue to have discretion to vote any uninstructed shares on the ratification of the appointment of the Company's independent registered public accounting firm (Proposal Three). If you are a stockholder of record and you do not cast your vote, no votes will be cast on your behalf on any of the items of business at the annual meeting.

**ELECTION OF DIRECTORS  
(Proposal One)**

The Company's Board of Directors currently consists of nine members. In accordance with Delaware law and the Company's bylaws, the Board of Directors has adopted resolutions reducing the number of seats on the Board of Directors from nine to eight. This reduction will take effect in conjunction with the election of directors at the annual meeting. The existing directors who have been nominated by the Board of Directors for re-election are identified below. 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 currently serving as directors of the Company and those nominated for election to the Board of Directors at the annual meeting and , which includes information as of the date of this proxy statement that each director has given us about his age, all positions he holds within the Company, his principal occupation and business experience for the past five years, and the names of other publicly-held companies of which he currently serves as a director or has served as a director during the past five years, as well as each nominee's specific experience, qualifications, attributes and skills that led our Board to the conclusion that he should serve as a director.

<u>Name and Age of Director and Nominee</u>	<u>Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies</u>	<u>Director Since</u>
Jonathan Lewis, M.D., Ph.D. Age 51	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), the Medical Advisory Board of the Sarcoma Foundation of America and on the Scientific Advisory Council of the Hope Funds for Cancer Research. Other public companies of which Dr. Lewis has formerly served as a director during the past five years include Delcath Systems, Inc.  Our Board believes that Dr. Lewis, along with Mr. Bagley, is an appropriate person to represent management on the Company's Board of Directors given his position as the Company's principal executive officer, his tenure with the Company, which dates back to the Company's inception, and his professional credentials, his standing in the medical community and his clinical research experience.	2005

Name and Age of Director and Nominee	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies	Director Since
Richard E. Bagley Age 66	<p>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 &amp; 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.</p> <p>Along with Dr. Lewis, our Board of Directors believes that Mr. Bagley, as President, Chief Operating Officer and Chief Financial Officer, is an appropriate person to represent management on the Company's Board of Directors given his positions and role within the Company, his tenure with the Company, which dates back to the Company's inception, and his extensive experience with pharmaceutical development in an executive capacity.</p>	2005
Murray Brennan, M.D. Age 70	<p>Dr. Brennan, who currently serves as the Board of Directors' non-executive Lead Director, 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, continues to operate at this institution and currently serves as its Vice President for International Programs. 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 its 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.</p>	2005



Name and Age of Director and Nominee	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies	Director Since
George B. Abercrombie Age 55	<p>Dr. Brennan's credentials and standing in the medical community worldwide, and the oncology community specifically, along with the leadership roles in which he has served at various esteemed organizations, provides experience and credibility that our Board of Directors believes make him well suited to serve on the Board and as its non-executive Lead Director.</p> <p>Mr. Abercrombie, who has been a director of the Company since its April 2010, most recently served as the President and CEO of Hoffmann-La Roche Inc. and Head of North American Pharmaceutical Operations from 2001 through December 2009. Prior to joining Hoffmann-La Roche Inc. in 2001, Mr. Abercrombie held the position of Senior Vice President, Commercial Operations at Glaxo Wellcome Inc. and prior to joining Glaxo, held progressively senior positions at Merck and Company in Merck's Human Health Division in the United States. Mr. Abercrombie currently serves as a member of the Board of Directors of Inspire Pharmaceuticals, Inc.</p> <p>Mr. Abercrombie was recently elected to our Board of Directors in light of his leadership positions and extensive executive experience with large pharmaceutical companies. The Board of Directors believes that Mr. Abercrombie will be an extremely valuable resource to the Board and to Company management as the Company and its drug development efforts continue to mature.</p>	2010
James A. Cannon Age 71	<p>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 &amp; 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.</p> <p>Our Board of Directors believes that Mr. Cannon is qualified to serve as a director of the Company based on his financial skills and overall business judgment. In addition, the role played by Mr. Cannon at BBDO, where he oversees the financial management of that company's international operations, uniquely qualifies him to serve as Chair of the Company's audit committee.</p>	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 69	<p>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 U.S. Senate he served as assistant floor leader, helping mold a bipartisan consensus for major public policy issues. Senator Fowler was a member of the U.S. Senate Appropriations, Budget, Energy and Agriculture Committees. First elected to the U.S. 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 U.S. 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 U.S. 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. Senator Fowler also serves on the board of directors of Shubert Theaters, the Shubert Foundation, Brandywine Realty Trust and Keryx Biopharmaceuticals, Inc.</p> <p>Senator Fowler's background and experience in the United States Congress, and the leadership qualities exemplified during and since his tenure in Congress, are attributes that the Company believes benefits our overall Board operations. In addition, his international business and law experience qualify him to serve on our Board of Directors.</p>	2005
Timothy McInerney Age 49	<p>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 &amp; Co. Prior to that, Mr. McInerney held equity sales positions at Bear Sterns &amp; Co. and Shearson Lehman Brothers, Inc. Mr. McInerney also 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. Mr. McInerney currently serves on the board of directors of Manhattan Pharmaceuticals, Inc. and and Insite Vision Incorporated.</p> <p>Mr. McInerney's experiences with investment banking firms that have specialized in forming and raising capital for pharmaceutical development companies makes him uniquely qualified to serve of on the Company's Board. The Company has benefitted and continues to benefit from the various contacts that Mr. McInerney has in the investment community and his involvement with other biotechnology companies provides valuable context to Board discussions.</p>	2005

Name and Age of Director and Nominee	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies	Director Since
Michael Weiser, M.D., Ph.D. Age 47	<p>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 advancing the discovery and development of novel treatments for unmet medical needs. Prior to joining Actin Biomed, Dr. Weiser was the Director of Research at Paramount BioCapital where he was responsible for the scientific, medical and financial evaluation of biomedical technologies and pharmaceutical products under consideration for development. 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, American Society of Clinical Oncology, American Society of Hematology and Association for Research in Vision and Ophthalmology. In addition, Dr. Weiser has received awards for both academic and professional excellence and is published extensively in both medical and scientific journals. Dr. Weiser currently serves on the board of directors of Chelsea Therapeutics International, Emisphere Technologies, Inc., Hana Biosciences, Inc. as well as several privately held companies. Other public companies of which Dr. Weiser has formerly served as a director during the past five years include Manhattan Pharmaceuticals, Inc. and Vioquest Pharmaceuticals, Inc.</p> <p>Dr. Weiser’s medical education and background coupled with his experiences as co-chairman of a healthcare investment firm and former Director of Research for a biotechnology investment banking firm, provide him with a unique background and skill set that have added and continue to add value to our Board. In addition, Dr. Weiser’s service on the boards of directors of various public biotechnology companies and his knowledge of compensation trends also makes him well suited to serve as Chair of the Company’s compensation committee.</p>	2005

## EXECUTIVE OFFICERS; DIRECTORS AND COMPENSATION

### Executive Officers and Directors 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. Director, Chief Executive Officer	51	See "Election of Directors (Proposal One)" — above.
Richard E. Bagley Director, President, Chief Operating Officer and Chief Financial Officer	66	See "Election of Directors (Proposal One)" — above.
Murray Brennan, M.D., Director	70	See "Election of Directors (Proposal One)" — above.
George B. Abercrombie, Director	55	See "Election of Directors (Proposal One)" — above.
James A. Cannon, Director	71	See "Election of Directors (Proposal One)" — above.
Senator Wyche Fowler, Jr., J.D., Director	69	See "Election of Directors (Proposal One)" — above.
Gary S. Fragin, Director	63	Gary S. Fragin 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. 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.
Timothy McInerney, Director	49	See "Election of Directors (Proposal One)" — above.
Michael Weiser, M.D., Ph.D., Director	47	See "Election of Directors (Proposal One)" — above.

## Summary Compensation Table

The table below summarizes the total compensation earned during the fiscal years ended December 31, 2009, 2008 and 2007 by (i) each individual serving as our principal executive officer during the fiscal year ended December 31, 2009; and (ii) up to two of the other most highly compensated individuals who served as an executive officer of the Company as of December 31, 2009 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 executive officers”).

Name of Principal Position	Year	Salary	Bonus	Restricted Stock Awards <sup>(1)</sup>	Stock Option Grants <sup>(1)</sup>	All Other Compensation	Total
Jonathan Lewis, M.D., Ph.D. Chief Executive Officer	2009	\$ 420,000	\$200,000 <sup>(2)</sup>	\$1,045,500 <sup>(5)</sup>	\$384,500 <sup>(7)</sup>	\$ 77,343 <sup>(9)</sup>	\$ 2,127,343
	2008	\$ 419,215	\$250,000 <sup>(3)</sup>	\$ 449,500 <sup>(6)</sup>	\$ —	\$ 5,169 <sup>(10)</sup>	\$ 1,123,884
	2007	\$ 385,000	\$315,000 <sup>(4)</sup>	\$ —	\$324,661 <sup>(8)</sup>	\$ 5,289 <sup>(11)</sup>	\$ 1,029,950
Richard E. Bagley President, Chief Operating Officer and Chief Financial Officer	2009	\$ 315,000	\$100,000 <sup>(12)</sup>	\$ 348,500 <sup>(15)</sup>	\$163,500 <sup>(18)</sup>	\$ 2,880 <sup>(21)</sup>	\$ 929,880
	2008	\$ 308,750	\$ 50,000 <sup>(13)</sup>	\$ 41,500 <sup>(16)</sup>	\$ 93,926 <sup>(19)</sup>	\$ —	\$ 494,176
	2007	\$ 275,000	\$105,000 <sup>(14)</sup>	\$ 68,250 <sup>(17)</sup>	\$239,078 <sup>(20)</sup>	\$ —	\$ 687,328

- (1) Amounts listed reflect the aggregate grant date fair value related to stock awards and option awards, as applicable, granted during the fiscal years ended December 31, 2009, 2008 and 2007, respectively, computed in accordance with FASB ASC Topic 718, but net of any estimate for forfeitures related to service based vesting conditions. Assumptions used in the calculation of these amounts are included in Note 3 to the Company’s audited financial statements for the fiscal year ended December 31, 2009, which are contained in the Company’s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 17, 2010.
- (2) Reflects a discretionary year-end bonus of \$200,000 for performance during fiscal year 2009.
- (3) Includes an annual guaranteed bonus of \$250,000 required under the terms of Dr. Lewis’ prior employment agreement with the Company for work performed in fiscal 2007, which was paid in fiscal 2008. Dr. Lewis received a grant of restricted stock in lieu of a cash bonus that he would otherwise have been eligible to receive in respect of work performed in fiscal 2008. See Note 6 below.
- (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, which was paid in fiscal 2007, and an additional \$65,000 discretionary bonus based on Dr. Lewis’ fiscal 2007 job performance.
- (5) During fiscal 2009, the Company granted Dr. Lewis a total of 450,000 restricted shares of the Company’s common stock as follows: (i) 300,000 shares were granted on September 23, 2009, which shares are subject to transfer and forfeiture restrictions that lapse on the one-year anniversary of the grant date; and (ii) 150,000 shares were granted on December 31, 2009, which shares are subject to transfer and forfeiture restrictions that lapse in annual installments over three years commencing on the one-year anniversary of the grant date.
- (6) During fiscal 2008, the Company granted Dr. Lewis a total of 250,000 restricted shares of the Company’s common stock as follows: (i) 100,000 shares were granted in connection with Dr. Lewis entering into his current employment agreement on January 8, 2008, which shares are subject to transfer and forfeiture restrictions that lapse in annual installments over three years commencing on the one-year anniversary of the grant date; and (ii) 150,000 shares were granted on December 3, 2008 in lieu of a year-end cash bonus for fiscal 2008, which shares are subject to transfer and forfeiture restrictions that lapse on the one year anniversary of the grant date.
- (7) On May 13, 2009, the Company granted to Dr. Lewis options to purchase 100,000 shares of the Company’s common stock at an exercise price of \$0.70, which options vest or vested in four equal installments on each of May 13, 2009, August 13, 2009, November 13, 2009, and February 13, 2010. On December 31, 2009, the Company granted Dr. Lewis options to purchase 150,000 shares of the Company’s common stock at a per share exercise price of \$2.85. Such options vest in equal annual installments over three years commencing on the one year anniversary of the grant date.
- (8) 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.

- (9) Of such amount, (i) \$5,492 represents the dollar value of life insurance premiums paid by the Company for the benefit of Dr. Lewis during fiscal 2009, (ii) \$71,851 represents taxable perquisites including \$5,569 for health club dues, and \$41,725 for transportation costs, and (iii) \$24,557 represents "gross up" amounts reimbursed to Dr. Lewis for the payment of taxes on such perquisites.
- (10) Amount represents the dollar value of life insurance premiums paid by the Company for the benefit of Dr. Lewis during fiscal 2008.
- (11) Amount represents the dollar value of life insurance premiums paid by the Company for the benefit of Dr. Lewis during fiscal 2007.
- (12) Includes a discretionary year-end bonus of \$100,000 for performance during fiscal year 2009.
- (13) Includes an annual guaranteed bonus of \$50,000 required under Mr. Bagley's prior employment agreement with the Company for worked performed for the period from July 2007 to July 2008. Mr. Bagley received a grant of restricted stock in lieu of a cash bonus that he would otherwise have been eligible to receive in respect of work performed in fiscal 2008. See Note 17 below.
- (14) Includes an annual guaranteed bonus of \$50,000 required under Mr. Bagley's prior employment agreement with the Company for worked performed for the period from July 2006 to July 2007 and an additional \$55,000 discretionary bonus based on Mr. Bagley's fiscal 2007 job performance.
- (15) During fiscal 2009, the Company granted Mr. Bagley a total of 150,000 restricted shares of the Company's common stock as follows: (i) 100,000 shares were granted on September 23, 2009, which shares are subject to transfer and forfeiture restrictions that lapse on the one-year anniversary of the grant date; and (ii) 50,000 shares were granted on December 31, 2009, which shares are subject to transfer and forfeiture restrictions that lapse in annual installments over three years commencing on the one-year anniversary of the grant date.
- (16) On December 3, 2007, the Company granted 50,000 shares of the Company's common stock to Mr. Bagley in lieu of a year-end cash bonus for fiscal 2008, which shares are subject to transfer and forfeiture restrictions that lapse on the one-year anniversary of the grant date.
- (17) On December 12, 2007, the Company granted 25,000 shares of the Company's common stock to Mr. Bagley, which shares are subject to transfer and forfeiture restrictions that lapse in their entirety on December 1, 2008.
- (18) During fiscal 2009, the Company granted Mr. Bagley options to purchase a total of 150,000 shares of the Company's common stock as follows: (i) options to purchase 100,000 shares of common stock at a per share exercise price of \$0.70 were granted on May 13, 2009, which options vest or vested in four equal installments on each of May 13, 2009, August 13, 2009, November 13, 2009, and February 13, 2010; and (ii) options to purchase 50,000 shares of common stock at a per share exercise price of \$2.85 were granted on December 31, 2009, which options vest in equal annual installments over three years commencing on the one year anniversary of the grant date.
- (19) 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, which options vest in annual installments over three years commencing on the one year anniversary of the grant date.
- (20) 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.
- (21) Of such amount, \$1,905 represents the dollar value of group term life insurance premiums paid by the Company for the benefit of Mr. Bagley during fiscal 2009, and \$975 represents "gross up" amounts reimbursed to Mr. Bagley for the payment of taxes.

## Description of Employment Agreements and Related Compensation

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

During the fiscal year ended December 31, 2007, Dr. Jonathan Lewis served as the Company's Chief Executive Officer under an employment agreement dated January 8, 2004. Under that agreement, as amended, Dr. Lewis received an annual base salary of \$385,000 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.

The Company's practice has been to evaluate compensation and related job performance at the end of each fiscal year and grant 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 received an initial annual base salary of \$420,000, which is subject to increase at the discretion of the Board of Directors based on an annual review. Based on its year-end review for fiscal 2009, the Board of Directors increased Dr. Lewis' annual base salary for 2010 to \$460,000. 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 lapsed on December 3, 2009, in lieu of the cash bonus for fiscal year 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 to \$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 current 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 lapse in three equal annual installments on January 8, 2009, January 8, 2010 and January 8, 2011. Accordingly, 66,666 shares have vested effective as of January 8, 2010. 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.

On May 13, 2009, the Company granted to Dr. Lewis options to purchase 100,000 shares of the Company's common stock at an exercise price of \$0.70, which options vest or vested in four equal installments on each of May 13, 2009, August 13, 2009, November 13, 2009, and February 13, 2010. Effective as of December 31, 2009, the Board of Directors' adopted the compensation committee's recommendations for 2009 end-of-year cash bonuses, awards of restricted stock and grants of stock options under the Company's 2003 Stock Option Plan. Dr. Lewis received a cash bonus of \$200,000 and was awarded 150,000 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. The Company also granted Dr. Lewis options to purchase 150,000 shares of the Company's common stock at an exercise price of \$2.85, which options vest in equal annual installments over three years commencing on the one year anniversary of the grant date.

Dr. Lewis' employment agreement provides that he 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 initially received an annual base salary of \$250,000 (subject to adjustment) 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 then-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 vested 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 25,000 shares of the Company's common stock to Mr. Bagley on December 1, 2008, which shares were subject to transfer and forfeiture restrictions that lapsed on the one-year anniversary of the grant date.

Effective June 25, 2008, the Company entered into a new 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. Based on its year-end review for fiscal 2009, the Board of Directors increased Dr. Lewis' annual base salary for 2010 to \$347,000. 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 lapsed 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.

On May 13, 2009, the Company granted to Mr. Bagley options to purchase 100,000 shares of the Company's common stock at an exercise price of \$0.70, which options vest or vested in four equal installments on each of May 13, 2009, August 13, 2009, November 13, 2009, and February 13, 2010. On December 31, 2009, the Board of Directors' adopted the compensation committee's recommendations for 2009 end-of-year cash bonuses, awards of restricted stock and grants of stock options under the Company's 2003 Stock Option Plan. Mr. Bagley received a cash bonus of \$100,000 and was awarded 50,000 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. The Company also granted Mr. Bagley options to purchase 50,000 shares of the Company's common stock with an exercise price of \$2.85 per share, which options vest in equal annual installments over three years commencing on the one year anniversary of the grant date.

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.

### Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information concerning stock options held by the named executives at December 31, 2009:

Name	Option Grants				Stock Awards	
	Number of Securities Underlying Unexercised Options No. Exercisable	Number of Securities Underlying Unexercised Options No. Unexercisable	Option Exercise Price	Option Expiration Date	Number of Shares of Stock That Have Not Vested	Market Value of Shares of Stock That Have Not Vested <sup>(15)</sup>
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	—	—
	30,000	—	\$ 6.49	12/13/2016	—	—
	23,333	11,667 <sup>(1)</sup>	\$ 4.85	6/18/2017	—	—
	66,667	33,333 <sup>(2)</sup>	\$ 2.73	12/12/2017	—	—
	75,000	25,000 <sup>(3)</sup>	\$ 0.70	5/13/2019	—	—
		150,000 <sup>(4)</sup>	\$ 2.85	12/31/2019	—	—
	—	—	—	—	66,667 <sup>(5)</sup>	\$ 197,334
	—	—	—	—	300,000 <sup>(6)</sup>	\$ 888,000
	—	—	—	—	150,000 <sup>(7)</sup>	\$ 444,000
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	—	—
	20,000	—	\$ 6.49	12/13/2016	—	—
	1,666	8,333 <sup>(8)</sup>	\$ 4.85	6/18/2017	—	—
	50,000	25,000 <sup>(9)</sup>	\$ 2.73	12/12/2017	—	—
	20,000	40,000 <sup>(10)</sup>	\$ 2.14	6/25/2018	—	—
	75,000	25,000 <sup>(11)</sup>	\$ 0.70	5/13/2019	—	—
	—	50,000 <sup>(12)</sup>	\$ 2.85	12/31/2019	—	—
	—	—	—	—	100,000 <sup>(13)</sup>	\$ 296,000
	—	—	—	—	50,000 <sup>(14)</sup>	\$ 148,000

(1) Vests with respect to 11,666 option shares on June 18, 2010.

(2) Vests with respect to 33,333 option shares on December 12, 2010.

(3) Vests with respect to 25,000 option shares on February 13, 2010.

(4) Vests with respect to 50,000 option shares on each of December 31, 2010, December 31, 2011 and December 31, 2012.

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

(6) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 300,000 shares on September 23, 2010.

- (7) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 50,000 shares on each December 31, 2010, December 31, 2011 and December 31, 2012.
- (8) Vests with respect to 8,333 option shares on June 18, 2010.
- (9) Vests with respect to 25,000 option shares on December 12, 2010.
- (10) Vests with respect to 20,000 option shares on each of June 25, 2010 and 2011.
- (11) Vests with respect to 25,000 option shares on February 13, 2010.
- (12) Vests with respect to 16,667 shares on each of December 31, 2010 and December 31, 2011, and vests with respect to 16,666 shares on December 31, 2012.
- (13) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 100,000 shares on September 23, 2010.
- (14) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 16,667 shares on each of December 31, 2010 and December 31, 2011 and vests with respect to 16,666 shares on December 31, 2012.
- (15) Market value calculations based on the Company's closing stock price of \$2.96 on December 31, 2009.

#### **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. Arrangements related to post-termination compensation and benefits applicable to Dr. Lewis and Mr. Bagley are discussed above under the headings "Description of Employment Agreements and Related Compensation — Employment Agreement with Jonathan Lewis, M.D., Ph.D." and "Description of Employment Agreements and Related Compensation — Employment Agreement with Richard E. Bagley."

#### **Director Compensation**

Under the Company's director compensation policy in effect for fiscal 2009, each non-employee director of the Company received 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 corporate governance and nominating committee received a \$1,000 cash payment for each committee meeting attended by such director. In addition, the Company's general practice has been to approve year-end equity incentive grants to non-employee directors in consideration for services provided to the Company as directors during the preceding year. On December 31, 2009, the Board of Directors awarded each non-employee director 7,500 restricted shares of the Company's common stock and an option to purchase 7,500 shares of the Company's common stock at an exercise price equal to \$2.85 per share. The restricted shares are subject to transfer and forfeiture restrictions that lapse, and the options vest, in two equal annual installments of 3,750 each on December 31, 2010 and 2011. In addition to the year-end equity incentive grants, each non-employee director also received a grant of 30,000 restricted shares of the Company's common stock on September 23, 2009. These additional one-time grants were made as part of the Company's overall personnel retention program and in respect of the considerable additional time and attention that the directors contributed to the Company during 2009 in overseeing the Company's product development and capital raising endeavors. The transfer and forfeiture restrictions applicable to these grants are scheduled to lapse in their entirety on the one year 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, 2009.

Name	Fees Earned or Paid in Cash	Option Awards <sup>(1)</sup>	Restricted Stock Awards	All Other Compensation	Total
Jonathan Lewis, M.D., Ph.D. <sup>(2)</sup>	\$ —			\$ —	\$ —
Richard E. Bagley <sup>(2)</sup>	\$ —			\$ —	\$ —
Murray Brennan	\$ 37,000 <sup>(3)</sup>	\$ 24,525	\$ 83,175	\$ —	\$ 144,700
James A. Cannon	\$ 35,000 <sup>(4)</sup>	\$ 24,525	\$ 83,175	\$ —	\$ 142,700
Gary S. Fragin	\$ 29,000 <sup>(5)</sup>	\$ 24,525	\$ 83,175	\$ —	\$ 136,700
Wyche Fowler, Jr., J.D.	\$ 30,000 <sup>(6)</sup>	\$ 24,525	\$ 83,175	\$ —	\$ 137,700
Timothy McInerney	\$ 26,000 <sup>(7)</sup>	\$ 24,525	\$ 83,175	\$ —	\$ 133,700
Michael Weiser, M.D., Ph.D.	\$ 26,000 <sup>(8)</sup>	\$ 24,525	\$ 83,175	\$ —	\$ 133,700

(1) Amounts listed reflect the aggregate grant date fair value related to stock awards and option awards, as applicable, granted during the fiscal year ended December 31, 2009, computed in accordance with FASB ASC Topic 718, but net of any estimate for forfeitures related to service based vesting conditions. Assumptions used in the calculation of these amounts are included in Note 3 to the Company's audited financial statements for the fiscal year ended December 31, 2009, which are contained in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 17, 2010.

(2) Employee directors.

(3) Includes cash retainers totaling \$27,000 and \$10,000 in fees related to Dr. Brennan's attendance at committee meetings.

(4) Includes cash retainers totaling \$25,000 and payments totaling \$10,000 for Mr. Cannon's attendance at committee meetings and his service as chairman of the audit committee.

(5) Includes cash retainers totaling \$25,000 and \$4,000 in fees related to Mr. Fragin's attendance at committee meetings.

(6) Includes cash retainers totaling \$25,000 and \$5,000 in fees related to Mr. Fowler's attendance at committee meetings.

(7) Includes cash retainers totaling \$25,000 and \$1,000 in fees related to Mr. McInerney's attendance at committee meetings.

(8) Includes cash retainers totaling \$25,000 and \$1,000 in fees related to Dr. Weiser's attendance at committee meetings.

On March 31, 2010, the Company adopted an amended policy governing director compensation for 2010 and beyond. Under the amended policy, each non-employee director receives a \$40,000 annualized cash retainer and additional annualized payments for service on the committee(s) to which they are assigned, as set forth in the table below:

	Chair	Member
Audit Committee	\$ 15,000	\$ 8,000
Compensation Committee	\$ 10,000	\$ 6,000
Corporate Governance and Nominating Committee	\$ 6,000	\$ 4,000

The non-executive Lead Director will also receive further annualized cash compensation of \$15,000. All cash retainers are paid on a quarterly basis in arrears to non-employee directors that continue to serve as members of the Board on the last business day of each calendar quarter. In addition, at the end of each calendar year (commencing with 2010), each non-employee director will receive annual equity incentive grants comprised of restricted shares of the Company's common stock and options to purchase shares of the Company's common stock. These grants, which will vest in their entirety on the one year anniversary of the date of grant, will be in consideration for services to be provided to the Company as directors during the next year. The number of restricted shares and options comprising each grant will be determined by the Board of Directors prior to the end of each calendar year upon recommendation from the compensation committee. Equity awards representing consideration for 2010 service were granted upon the March 31, 2010 amendment to the director compensation policy, such grants being in respect of grants that would have been made had the

amended policy been in place on December 31, 2009. Effective upon a director's initial election to the Board, he or she will receive 25,000 restricted shares of the Company's common stock and an option to purchase 25,000 shares of the Company's common stock. The restricted stock will be subject to transfer and forfeiture restrictions that will lapse on the one year anniversary of the grant date and the stock option will vest in three equal annual installments.

As set forth in its written charter, the compensation committee annually, or more frequently if deemed advisable, reviews director compensation practices and recommends any changes for adoption by the full Board of Directors. As such, the director compensation described above is subject to change at the discretion of the Board of Directors.

**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 6,002,436 shares of the Company’s common stock. Of the shares reserved for issuance under the 2003 Plan, 368,817 shares were available for future grants as of the Record Date.

In fiscal 2009, the Company amended the 2003 Plan to increase the number of shares reserved for issuance thereunder from 4,002,436 to 6,002,436, an increase of 2,000,000 shares. This amendment was approved by the stockholders of the Company at the Company’s 2009 annual stockholders meeting. During fiscal 2009, the Company granted stock based incentives that exhausted a substantial amount of the shares that remained available for issuance under the 2003 Plan (grants representing 2,230,161 shares, net of forfeitures). Although a portion of these incentives represented annual employee and director grants and new hire grants, the Company’s compensation committee and Board of Directors elected to grant additional stock based incentives in lieu of cash bonuses in an effort to conserve its then limited cash resources and retain existing key employees as the Company sought to obtain additional financing to fund ongoing operations.

In light of the limited number of shares that remain available for issuance under the 2003 Plan, the Board of Directors has approved a further 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 3,000,000 shares so that the total shares reserved for issuance pursuant to the 2003 Plan would be increased to 9,002,436. 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 2010 and 2011.

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. In addition, the Board of Directors considered the substantial additional number of shares issued by the Company in the financing transactions completed in September and December 2009, and the effect of those additional share issuances on the Company’s overhang calculation. See “Description of the Existing 2003 Plan — General” and “Proposed Amendment to the 2003 Plan” below.

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 the 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 6,002,436 shares, subject to adjustment in the event of a recapitalization or other corporate restructuring. Of this amount, 3,582,685 are reserved for issuance under existing Incentive grants that remain outstanding and 146,734 shares remained available for future Incentive grants, each as of 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 8.2%, 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 the 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 6,002,436 shares to 9,002,436 shares, subject to adjustment in the event of a recapitalization or other corporate restructuring. Of this amount, 3,582,685 are reserved for issuance under existing Incentive grants that remain outstanding and 3,146,734 shares would be available for future Incentive grants, each as of 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 13.9%.

#### **Securities Authorized for Issuance under Equity Compensation Plans**

The 2003 Plan, which is currently the Company's only equity compensation plan, has previously been approved by the Company's stockholders. The following table sets forth certain information as of December 31, 2009 with respect to the 2003 Plan:

##### **Equity compensation plans approved by stockholders:**

2003 Stock Option Plan	3,533,436	\$ 2.82	368,817
Total:	<u>3,533,436</u>	<u>\$ 2.82</u>	<u>368,817</u>

##### **Equity compensation plans not approved by stockholders:**

2000 individual option grant <sup>(1)</sup>	1,250	\$ 20.00	—
Total:	<u>1,250</u>	<u>\$ 20.00</u>	<u>—</u>

(1) Represents a stock option granted by the Company's predecessor that is scheduled to expire on December 20, 2010.

**RATIFICATION OF THE APPOINTMENT  
OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM  
(Proposal Three)**

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 Caturano and Company, P.C. as our independent registered public accounting firm for the fiscal year ending December 31, 2010. A representative of Caturano and Company, P.C. is expected to attend this year's annual meeting and is expected to be available to make statements and respond to appropriate questions from stockholders.

If the stockholders do not ratify the appointment of Caturano and 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 Caturano and 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.

**Fees Billed to Company by Its Independent Registered Public Accounting Firm**

Caturano and Company, P.C. served as the Company's independent registered public accounting firm for each of the fiscal years ended December 31, 2009 and 2008. The following table presents fees billed by Caturano and Company, P.C. during such years.

	<b>For the Fiscal Year Ended December 31,</b>	
	<b>2009</b>	<b>2008</b>
Audit Fees <sup>(1)</sup>	\$ 159,291	\$ 106,136
Audit Related Fees <sup>(2)</sup>	—	—
Tax Fees	—	—
All Other Fees <sup>(3)</sup>	—	—
<b>Total</b>	<b>\$ 159,291</b>	<b>\$ 106,136</b>

(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) All other fees consist of fees for review of regulatory filings other than quarterly and annual reports.

The audit committee of the Board of Directors has reviewed the services provided by Caturano and Company, P.C. during the fiscal year ended December 31, 2009 and the amounts billed for such services. After consideration, the audit committee has determined that the receipt of these fees by Caturano and Company, P.C. is compatible with the provision of independent audit services. The audit committee has discussed these services and fees with Caturano and 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 Caturano and 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 2009, the audit committee has functioned in conformance with these procedures.

## OTHER MATTERS

### Board of Directors and Committees

#### Board of Directors

The Company's Board of Directors is currently comprised of nine directors. In accordance with Delaware law and the Company's bylaws, the Board of Directors has adopted resolutions reducing the number of seats on the Board of Directors from nine to eight. This reduction will take effect in conjunction with the election of directors at the annual meeting. The eight directors nominated for re-election to the Board of Directors are identified under Proposal One. The Board has determined that Dr. Murray Brennan, Mr. George B. Abercrombie, Mr. James A. Cannon, Senator Wyche Fowler, Jr., Mr. Gary S. Fragin, Mr. Timothy McInerney and Dr. Michael Weiser are "independent directors," as such term is defined in the NASDAQ Stock Market's Marketplace Rule 5605(a)(2). The full Board of Directors held six meetings during fiscal year 2009 and took action by written consent on four occasion(s). In addition, the non-employee directors of the Company met on one occasion in executive session. For purposes of considering certain aspects of financing transactions completed by the Company in fiscal 2009, Board of Directors appointed a financing committee that held one meeting and took action by written consent on three occasions.

The Board of Directors has appointed an independent director, Dr. Murray Brennan, to serve as its non-executive Lead Director. The Board has elected to separate the Lead Director function from that of the Chief Executive Officer, who serves as the Company's principal executive officer, due to a belief that separating these functions, and empowering an independent director to chair the Board meetings, will result in increased Board oversight of management activities.

The Board of Directors has a standing audit committee, compensation committee and corporate governance and nominating committee. During the 2009 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. Six member(s) of the Board of Directors attended the Company's 2009 annual stockholders meeting.

The current members of the committees are as follows:

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

#### 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](http://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 the NASDAQ Stock Market's Marketplace Rule 5605(a)(2), 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 2009, 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 three 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, Dr. Michael Weiser and Mr. George B. Abercrombie. Mr. Abercrombie was appointed to serve on the compensation committee upon his election to the Board of Directors in April 2010. 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](http://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 the NASDAQ Stock Market’s Marketplace Rule 5605(a)(2), 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 two formal meetings during fiscal year 2009 and met informally on several other occasions. 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 developing programs governing the compensation of executive officers and other members of senior management that support achieving corporate objectives, reviewing and making recommendations to the Board regarding the compensation of employees determined to be named executive officers, approving the compensation of executive officers and members of senior management other than the named executive officers, administering the Company’s equity compensation plans, and reviewing the Company’s Board compensation practices.

In administering the Company’s incentive compensation programs, the compensation committee is charged with, among other things, annually, and in conjunction with the Company’s annual budget approval process, establishing Company objectives for executive officers during the first quarter of each fiscal year and reviewing executive officer performance against such objectives. In doing so, the compensation committee may establish annual incentive compensation programs for executive officers, senior management and other employees that measure performance based on achievement of pre-determined individual and/or corporate objectives. The compensation committee is also responsible for evaluating and approving the compensation of the Company’s senior management other than named executive officers, reviewing executive employment agreements and, where applicable, severance arrangements.

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 2009, 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 evaluated the Company's and the individual's performance against that mix.

During 2009, the compensation committee noted, among other things, that the executives had not received any salary increases or cash bonuses in the prior two fiscal years, the amount of responsibilities of each of the executives and the diminishing amount of stock of the Company held by the executives on a fully-diluted basis. The compensation committee also noted the successful Phase II trials of the Company's lead drug, palifosfamide, in soft tissue sarcoma and the considerable efforts of Company executives in completing two separate financing transactions in September and December 2009. Consequently, the Board of Directors, upon the recommendation of the compensation committee, directed the Company's management to provide each of the executives with a 10% increase in base salary and a year-end cash bonus and grants of restricted stock and stock options.

#### ***Corporate Governance and Nominating Committee of the Board of Directors***

The Company currently maintains a four member corporate governance and nominating committee of the Board of Directors. The current members of the corporate governance and nominating committee are Mr. Timothy McInerney, who serves as the committee's Chairman, Dr. Murray Brennan, Senator Wyche Fowler, Jr. and Mr. George B. Abercrombie. Mr. Abercrombie was appointed to serve on the corporate governance and nominating committee upon his election to the Board of Directors in April 2010. The corporate governance and nominating 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 on the Company's website at [www.ziopharm.com](http://www.ziopharm.com). As set forth in the charter, the primary responsibility of the corporate governance and nominating 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 corporate governance and nominating 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 corporate governance and nominating committee evaluates and assesses the performance of the Board of Directors as a whole and its committees. During fiscal year 2009, in furtherance of these responsibilities and the self-evaluation and peer review procedures created by the corporate governance and nominating committee in 2008, each director completed a 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 corporate governance and nominating committee is an "independent director," as such term is defined in the NASDAQ Stock Market's Marketplace Rule 5605(a)(2), and meets the criteria for independence set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended. The corporate governance and nominating committee held one meeting during fiscal year 2009.

#### **Director Nominations**

The corporate governance and nominating committee (or a subcommittee thereof) recruits and considers director candidates and presents qualified candidates to the full Board of Directors for consideration. There is no fixed process for identifying and evaluating potential candidates to be nominees for directors, and there is no fixed set of qualifications that must be satisfied before a candidate will be considered. Rather, the corporate governance and nominating committee has the flexibility to consider such factors as it deems appropriate. These factors may include education, general business and industry experience, ability to act on behalf of stockholders, potential concerns regarding independence or conflicts of interest and other factors relevant in evaluating Board nominees. Although the corporate governance and nominating committee does not have a

policy with regard to the consideration of diversity in identifying director candidates, overall Board diversity of industry background and experience is generally among the factors considered. The corporate governance and nominating committee believes that a Board comprised of directors with diverse skills and experiences relevant to the Company's industry and operations will result in efficient and competent oversight of the Company's various core competencies, which include pharmaceutical development, strategic partnering, commercialization activities, regulatory compliance, corporate finance and accounting. As such, the corporate governance and nominating committee gives consideration to the interplay of a director candidate's experience with that of other members of the Board of Directors and the evolving needs of the Company's business.

Qualified candidates will be considered without regard to race, color, religion, sex, ancestry, national origin or disability and the corporate governance and nominating committee will consider director candidates recommended by security holders. If the corporate governance and nominating committee approves a candidate for further review following an initial screening, the corporate governance and nominating committee will establish an interview process for the candidate. Generally, the candidate will meet with at least a majority of the members of the corporate governance and nominating committee, along with the Company's Chief Executive Officer. Contemporaneously with the interview process, the corporate governance and nominating committee will conduct a comprehensive conflicts-of-interest assessment of the candidate. The corporate governance and nominating 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 corporate governance and nominating 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 corporate governance and nominating 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 corporate governance and nominating 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 corporate governance and nominating 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 become a director of the Company;
- 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 corporate governance and nominating committee.

### **Risk Management and Oversight**

The Company's risk management function is overseen by the Company's President and Chief Financial Officer, who reports directly to the Chief Executive Officer. Material risks are identified and prioritized by management, and prioritized risks are referred to a Board committee or the full Board for oversight. For



example, strategic risks are referred to the full Board while financial risks are referred to the audit committee. The Board reviews information regarding the Company's credit, liquidity, and operations, as well as the risks associated with each.

#### **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 corporate governance and nominating 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](http://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 3200T.

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, 2009 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 A. Cannon**  
**Wyche Fowler, Jr.**  
**Gary S. Fragin**

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\* 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 1934, as amended, whether before or after the date hereof and irrespective of any general incorporation language in any such filing.

## 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 May 7, 2010 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 (#) <sup>(1)</sup>	Percentage of Common Stock Beneficially Owned (%)
Jonathan Lewis, M.D., Ph.D.	1,502,060 <sup>(2)</sup>	3.52%
Richard E. Bagley	780,280 <sup>(3)</sup>	1.84%
George B. Abercrombie	25,000	*
Murray Brennan, M.D.	150,863 <sup>(4)</sup>	*
James A. Cannon	413,363 <sup>(5)</sup>	*
Senator Wyche Fowler, Jr., J.D.	150,863 <sup>(4)</sup>	*
Gary S. Fragin	150,863 <sup>(4)</sup>	*
Timothy McInerney	596,507 <sup>(6)</sup>	1.41%
Michael Weiser, M.D., Ph.D.	288,193 <sup>(7)</sup>	*
All current executive officers and directors as a group	4,057,962 <sup>(8)</sup>	9.19%
FMR, LLC 82 Devonshire Street Boston, MA 02109	5,839,089 <sup>(9)</sup>	13.96%
QVT Financial GP LLC 1177 Avenue of the Americas, 9 <sup>th</sup> Floor New York, NY 10036	5,806,500 <sup>(10)</sup>	13.27%
Austin W. Marxe and David M. Greenhouse c/o Special Situations Funds 527 Madison Avenue, Suite 2600 New York, NY 10022	3,332,001 <sup>(11)</sup>	7.72%
Merlin BioMed Private Equity Advisors, LLC 230 Park Avenue, Suite 928 New York, NY 10169	2,419,500 <sup>(12)</sup>	5.68%
Great Point Partners, LLC 165 Mason Street, 3rd Floor Greenwich, CT 06830	2,419,500 <sup>(13)</sup>	5.68%
Essex Woodlands Health Ventures Fund VI LP 1001 Woodloch Forest Drive, Suite 175 The Woodlands, TX 77380	2,296,652 <sup>(14)</sup>	5.44%

\* Less than 1%

(1) Beneficial ownership is determined in accordance with SEC rules, and 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 other right. The indication herein that shares are beneficially owned is not an admission on the part of the security or stockholder that he, she or it is a direct or indirect beneficial owner of those shares.

- (2) Includes 856,585 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days. Also includes 450 shares indirectly held as custodian for his minor children under the Connecticut Uniform Gift to Minors Act.
- (3) Includes 571,125 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (4) Includes 83,363 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (5) Includes 87,500 shares issuable upon the exercise of warrants and 83,363 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (6) Includes 282,439 shares issuable upon the exercise of warrants and 83,363 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (7) Includes 53,855 shares issuable upon the exercise of warrants and 83,363 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.
- (8) Includes 423,824 shares issuable upon the exercise of warrants and 1,927,888 shares issuable upon the exercise of stock options 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 May 10, 2010. Fidelity Management & Research Company (“Fidelity”), a wholly-owned subsidiary of FMR LLC, is the beneficial owner of 5,480,029 shares as a result of acting as investment adviser to various investment companies. Edward C. Johnson 3d is Chairman of FMR LLC. FMR, LLC and Mr. Johnson, through their respective control of Fidelity, and the Fidelity funds each has sole power to dispose of the 5,480,029 shares owned by the Funds. Neither FMR LLC nor Mr. Johnson has the sole power to vote or direct the voting of the shares owned directly by the Fidelity funds, which power resides with the Funds’ Boards of Trustees. Fidelity carries out the voting of the shares under written guidelines established by the Funds’ Boards of Trustees. Pyramis Global Advisors Trust Company (“PGATC”), 900 Salem Street, Smithfield, Rhode Island, 02917, an indirect wholly-owned subsidiary of FMR LLC, is the beneficial owner of 359,060 shares as a result of its serving as investment manager of institutional accounts owning such shares. FMR LLC and Mr. Johnson, through their respective control of PGATC, each has sole dispositive power and sole power to vote or to direct the voting over the 359,060 shares owned by such institutional accounts.
- (10) Based on the most recent Schedule 13G filed with the Securities and Exchange Commission on December 14, 2009. QVT Financial LP (“QVT Financial”) is the investment manager of QVT Fund LP (the “Fund”) and Quintessence Fund L.P. (“Quintessence”). The shares beneficially owned by QVT Financial include 3,509,061 shares held by the Fund and 361,939 shares held by Quintessence, and also include 1,754,531 and 180,969 shares that are issuable upon the exercise of warrants held by the Fund and Quintessence, respectively, that are currently exercisable or will become exercisable within the next 60 days. QVP Financial GP LLC (“Financial GP”) is the general partner of QVT Financial. QVT Associates GP LLC, as general partner of the Fund and Quintessence, along with Financial GP and QVT Financial, may be deemed to beneficially own and have shared power to vote and dispose of the securities held by the Fund and Quintessence. The warrants to purchase shares held by the Fund and Quintessence contain “blocker” provisions that limits their ability exercise such warrants to the extent that such exercise would cause the shareholder’s and certain related parties’ beneficial ownership in the Company to exceed 9.99% of the Company’s shares outstanding. The calculation of beneficial ownership does not take into account the effect of such “blocker” provisions.
- (11) Based on the most recent 13G filed with the Securities and Exchange Commission on February 12, 2010. Austin M. Marx (“Marx”) and David M. Greenhouse (“Greenhouse”) are the controlling principals of AWM Investment Company, Inc. (“AWM”), the general partner of MGP Advisers Limited Partnership (“MGP”), the general partner of Special Situations Fund III QP, L.P. (“SSFQP”). Marx and Greenhouse are members of MG Advisers L.L.C. (“MG”), the general partner of Special Situations Private Equity Fund, L.P. (“SSPE”). Marx and Greenhouse are also members of LS Advisers L.L.C. (“LS”), the general partner of Special Situations Life Sciences Fund, L.P. (“Life Sciences”). AWM serves as the investment adviser to SSFQP, SSPE, and Life Sciences (SSFQP, SSPE, and Life Sciences are referred to as the “Funds”). The shares beneficially owned by Marx and Greenhouse include (i) 240,000 shares held by SSPE and 120,000 shares that are issuable upon the exercise of warrants held by SSPE that are currently exercisable or will become exercisable within the next 60 days; (ii) 1,500,000 shares held by

SSFPQ and 750,000 shares that are issuable upon the exercise of warrants held by the SSFPQ that are currently exercisable or will become exercisable within the next 60 days and (iii) 448,028 shares held by Life Sciences and 448,028 shares that are issuable upon the exercise of warrants held by the Life Sciences that are currently exercisable or will become exercisable within the next 60 days. Marxe and Greenhouse shares power to vote and dispose of the securities held by the Funds.

- (12) Based on the most recent Schedule 13G filed with the Securities and Exchange Commission on January 26, 2010. Dominique Sémon (“Sémon”), the managing member of Merlin BioMed Private Equity Advisors, LLC (“Merlin”), may be deemed to be the beneficial owner of the referenced securities. Each of Sémon and Merlin have shared power to vote and dispose of the Company’s referenced securities. The shares beneficially owned include 806,500 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 Schedule 13G filed with the Securities and Exchange Commission on December 14, 2009. Included (i) 1,056,580 shares held by Biomedical Value Fund, L.P. (“BVF”) and 532,290 shares that are issuable upon the exercise of warrants held by BVF that are currently exercisable or will become exercisable within the next 60 days; and (ii) 548,420 shares held by Biomedical Offshore Value Fund, Ltd. (“BOVF”) and 274,210 that are issuable upon the exercise of warrants held by BVF that are currently exercisable or will become exercisable within the next 60 days. Great Point Partners, LLC (“Great Point”), acts as the investment manager of each of BVF and BOVF. Dr. Jeffrey R. Jay, M.D. acts as senior managing member of Great Point, and David Kronin acts as special managing member of Great Point. Great Point, by virtue of its management position to each of BVF and BOVF, and Dr. Jay and Mr. Kronin, by virtue of their management positions with Great Point, may be deemed to beneficially own and share the power to vote and dispose of the securities held by BVF and BOVF.
- (14) 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. The securities were purchased by Essex Woodlands Health Ventures Fund VI, L.P., a Delaware limited partnership (the “Partnership”). Essex Woodlands Health Ventures VI, L.P., a Delaware limited partnership (the “GP Partnership”), is the general partner of the Partnership. Essex Woodlands Health Ventures VI, L.L.C., a Delaware limited liability company (the “General Partner”), is the general partner of the GP Partnership. James L. Currie, Martin P. Sutter, Immanuel Thangaraj, Petri Vainio, Mark Pacala and Jeff Himawan (each a “Manager”, collectively, the “Managers”, and together with the Partnership, GP Partnership and the General Partner, the “Reporting Persons”). The General Partner may be deemed to have voting control and investment discretion over securities owned by the Partnership. The Managers may be deemed to be the beneficial owners of any shares deemed to be beneficially owned by the General Partner. The foregoing should not be construed in and of itself as an admission by the General Partner or the Managers as to beneficial ownership of the shares owned by the Partnership.

#### **CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

In consideration for serving as a sub-placement agent in connection with our private placement of common stock and warrants that was completed on September 15, 2009 (the “Offering”), we paid Riverbank Capital Securities, Inc. (“Riverbank”) approximately \$185,000 and issued to Riverbank and its designees warrants to purchase a total of 65,843 shares of our common stock at an exercise price of \$2.04 per share (the “Placement Warrants”). Timothy McInerney, who serves as a member of our Board of Directors, is an officer of Riverbank. Riverbank may allocate or may have allocated to Mr. McInerney a portion of the compensation that it received for serving as a sub-placement agent. In light of the relationship between Mr. McInerney and Riverbank, Mr. McInerney abstained from voting as a director on matters related to the selection of the placement agents in the Offering and the terms of the Offering were reviewed and approved by a special financing committee of which Mr. McInerney was not a member.

## 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 occurring during fiscal 2009, 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.

<u>Name of Filer</u>	<u>Description of Transaction</u>	<u>Transaction Date</u>	<u>Filing Date</u>
Jonathan Lewis	Received of gifts of common stock as custodian for minor children (450 shares)	February 1, 2008 and February 7, 2008	May 15, 2009
Essex Woodlands Health Ventures Fund VI, LP	Acquisition of common stock (328,766 Shares) and warrants (328,766 warrant shares)	September 15, 2009	December 10, 2009

## 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 2011 annual meeting following the Company's 2010 fiscal year, must submit that proposal in writing to the Chief Financial Officer of the Company at the Company's corporate headquarters by January 14, 2011 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.

## 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 2011 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 30, 2011, 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.

A handwritten signature in black ink, appearing to read "Richard E. Bagley". The signature is written in a cursive style with a large, looping initial "R".

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

ANNUAL MEETING OF STOCKHOLDERS OF  
**ZIOPHARM ONCOLOGY, INC.**

June 23, 2010

**NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:**

The Notice of Meeting, Proxy Statement, Proxy Card  
are available at <http://www.amstock.com/ProxyServices/ViewMaterial.asp?CoNumber=14373>

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
- Richard E. Bagley
- Murray Brennan
- George B. Abercrombie
- James A. Cannon
- Wyche Fowler, Jr.
- Timothy McInerney
- Michael Weiser

**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: ●

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.

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 8,002,436 shares to 9,002,436 shares.  FOR  AGAINST  ABSTAIN

3. Proposal to ratify the appointment of Caturano and Company, P.C. as the independent registered public accounting firm of the Company for fiscal 2010.  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.

**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** the amendment to the 2003 Stock Option Plan; and **FOR** ratification of Caturano and Company, P.C.'s appointment as independent registered public accounting firm for fiscal 2010.

**PROXY CARD**  
**ZIOPHARM ONCOLOGY, INC.**

**Proxy for Annual Meeting of Stockholders**

As an alternative to completing this form, you may enter your vote instruction by telephone at 1-800-PROXIES, or via the Internet at [WWW.VOTEPROXY.COM](http://WWW.VOTEPROXY.COM) and follow the simple instructions. Use the Company Number and Account Number shown on your proxy card.

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 the Grand Hyatt New York, 109 East 42nd Street at Grand Central Terminal, New York, NY 10017, on Wednesday, June 23, 2010, at 10:00 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.)**