## UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM 10-K/A (Amendment No. 1)

x ANNUAL REPORT UNDER SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended December 31, 2009 OR

o TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition Period from to

Commission File Number 001-33038

### ZIOPHARM Oncology, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

**84-1475642** (IRS Employer Identification No.)

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

(Address of Principal Executive Offices)

**10036** (Zip Code)

(646) 214-0700

(Issuer's Telephone Number, Including Area Code)

(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

Securities registered pursuant to Section 12(b) of the Act:

Common Stock (Par Value \$0.001 per Share)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. o

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of "large accelerated filer," "accelerate filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer o

Accelerated Filer o

Non- Accelerated Filer o

**Smaller Reporting Company** 

X

Indicate by check mark whether the registration is a shell company (as defined in Rule 12b-2 of the Act). Yes o No x

The aggregate market value of the registrant's common stock held by non-affiliates was \$31,745,280 as of June 30, 2009 (the last business day of the registrant's most recently completed second fiscal quarter), based upon the closing price of the registrant's common stock as reported on the NASDAQ Capital Market on that date. Shares of common stock held by each executive officer and director of the registrant and by each entity that owns 10% or more of the registrant's outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of April 23, 2010, there were 41,765,445 shares of the registrant's common stock, \$.001 par value per share, outstanding.

#### DOCUMENTS INCORPORATED BY REFERENCE:

DOCOM	IEN15 INCORPORATED DI REFERENCE.
None.	

### EXPLANATORY NOTE

ZIOPHARM Oncology, Inc. ("ZIOPHARM," the "Company," "we" or "us") is filing this Amendment No. 1 to its Annual Report on Form 10-K for the
year ended December 31, 2009 filed with the Securities and Exchange Commission on April 30, 2010 solely for the purpose of providing certain information
required by Part III of Form 10-K and to reflect exhibits filed with this Amendment No. 1. Unless otherwise expressly stated, this Amendment No. 1 does no
reflect events occurring after the filing of the original Form 10-K, or modify or update in any way disclosures contained in the original Form 10-K.

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#### PART III

#### Item 10. Directors, Executive Officers and Corporate Governance

Set forth below is information regarding the individuals currently serving as directors of the Company, which includes information 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 director's specific experience, qualifications, attributes and skills.

Name and Age of Director and Nominee	Principal Occupation, Business Experience for the Past Five Years and Directorships in Public Companies	Director Since
Jonathan Lewis, M.D., Ph.D. Age 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) and on the Medical Advisory Board of the Sarcoma Foundation of America. 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
Richard E. Bagley Age 66	Mr. Bagley is President, Chief Operating Officer, Chief Financial Officer, Treasurer and a director, serving in these capacities since the Company's September 2005 acquisition of ZIOPHARM, Inc. Mr. Bagley previously served ZIOPHARM, Inc. as its President and Chief Operating Officer since July 2004, as a Director since December 2004 and as Chief Financial Officer and Treasurer since March 2005. Mr. Bagley initiated a career in pharmaceuticals in 1968 with Smith Kline and French Laboratories, leaving in 1985 after launching Tagamet in the U.S. as Vice President for Product Management and serving as President in the over-the-counter/consumer group. From 1985-1990, Mr. Bagley served in several capacities at Squibb Corporation including as President of E. R. Squibb & Sons, U.S. in 1988 and 1989. He subsequently worked in the biotechnology industry as Director, Chief Executive Officer and President of ImmuLogic Pharmaceutical Corporation from 1990 to 1994, as Director, Chief Executive Officer and Chairman of ProScript, Inc. from 1994 to 1998, as Director, President and Chief Executive Officer of AltaRex Corp. from 1998 to May 2003, and thereafter as a part time consultant and senior advisor. 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.	2005

Murray Brennan, M.D. Age 70 2005

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 coauthored 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. Dr. Brennan's credentials and standing in the medical community worldwide, and the oncology community specifically, along the leadership roles is 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.

George B. Abercrombie Age 55 2010

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. 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.

James A. Cannon Age 71 2005

James (Jim) Cannon has been a director of the Company since its September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since December 2004. Mr. Cannon is Vice Chairman, Chief Financial Officer and a member of the Board of Directors of BBDO Worldwide. In these capacities, he oversees the financial management of BBDO operations in 77 countries. Jim joined BBDO in 1967, was promoted to Chief Financial Officer of the agency in 1984, and was elected to its Board of Directors one year later. An integral member of the team that formed Omnicom via a unique three-agency merger of BBDO, DDB and Needham Harper & Steers, Jim became Comptroller of the new group (NYSE: OMC) and a member of its Board of Directors in 1986, a position he held through 2002. In 1987, he was appointed Director of Financial Operations of the Omnicom Group, serving in this capacity until early 1989 when he rejoined BBDO Worldwide as Executive Vice President and Chief Financial Officer. His return was concurrent with that of Allen Rosenshine who became Chairman and Chief Executive officer of BBDO after heading Omnicom. Jim was promoted to Vice Chairman of the agency in 1990. Jim is a graduate of Pace University and served in the US Marine Corps. 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.

2005

Senator Wyche Fowler, Jr., J.D. 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 mould 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'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.

Gary S. Fragin Age 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. Mr. Fragin's experience in the banking industry and his leadership ability qualifies him to serve on the Company's Board of Directors.

Timothy McInerney Age 49

Timothy McInerney has been a director of the Company since its September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since July 2005. In June of 2007, Mr. McInerney joined Riverbank Capital who specializes in financing for the biotech and specialty pharmaceutical industry as a Partner. From 1992 to March 2007, Mr. McInerney was a Managing Director of Paramount BioCapital, Inc. where he oversaw the overall distribution of Paramount's private equity product. Prior to 1992, Mr. McInerney was a research analyst focusing on the biotechnology industry at Ladenburg, Thalman & Co. Prior to that, Mr. McInerney held equity sales positions at Bear Sterns & Co. and Shearson Lehman Brothers, Inc. Mr. McInerney also 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. Other public companies on which Mr. McInerney has formerly served as a director during the past five years includes Manhattan Pharmaceuticals, Inc. 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. McInereny has in the investment community and his involvement with other biotechnology companies provides valuable context to Board discussions.

2005

2005

2005

Dr. Weiser has been a director of the Company since its September 2005 acquisition of ZIOPHARM, Inc. and previously served as a Director of ZIOPHARM, Inc. since its inception in September 2003. Dr. Weiser is currently founder and co-chairman of Actin Biomed, a New York based healthcare investment firm. Prior to joining Actin, Dr. Weiser was the Director of Research of Paramount BioCapital, Inc. Dr. Weiser completed his Ph.D. in Molecular Neurobiology at Cornell University Medical College and received his M.D. from New York University School of Medicine. He performed his post-graduate medical training in the Department of Obstetrics and Gynecology at New York University Medical Center. Dr. Weiser also completed a Postdoctoral Fellowship in the Department of Physiology and Neuroscience at New York University School of Medicine and received his B.A. in Psychology from University of Vermont. Dr. Weiser is a member of The National Medical Honor Society, Alpha Omega Alpha. Dr. Weiser currently serves on the board of directors of Manhattan Pharmaceuticals, Inc., Chelsea Therapeutics International, Ltd., Emisphere Technologies, Inc. and Hana Biosciences, Inc. as well as several privately held companies. Other public companies on which Dr. Weiser has formerly served as a director during the past five years includes Vioquest Pharmaceuticals, Inc. 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 on the Company's compensation committee.

#### 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.

Name of Filer	Description of Transaction	Transaction Date	Filing Date
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	September 15, 2009	December 10, 2009

#### AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

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

Each member of the audit committee is an "independent director," as such term is defined in 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.

## Item 11. Executive Compensation 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(		Stock Option Grants(1)	All Other Compensation	Total
Jonathan Lewis, M.D., Ph.D. Chief Executive Officer	2009 2008	\$ 420,000 \$ 419,215	\$ 200,000 <sup>(2)</sup> \$ 250,000 <sup>(3)</sup>			384,500 <sup>(7)</sup>		\$ 2,127,343 \$ 1,123,884
Richard E. Bagley President , Chief Operating Officer and Chief Financial Officer	2007 2009 2008 2007	\$ 385,000 \$ 315,000 \$ 308,750 \$ 275,000	\$ 100,000 <sup>(12)</sup> \$ 50,000 <sup>(13)</sup>	\$ 348,50 \$ 41,50	- \$ 00(15) \$ 00(16) \$ 60(17) \$	93,926(19)	\$ 2,880 <sup>(21)</sup>	\$ 1,029,950 \$ 929,880 \$ 494,176 \$ 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.
- 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.
- Ouring 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.
- 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.
- 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.
- Ouring 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.
- 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 increase 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 \$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 potion 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 increase 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:

		Option Grai	nts			Stock Av	vards	
Name	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 (15)	_
Jonathan Lewis, M.D.,	25,674	-	\$	0.08	1/7/2014	-		_
Ph.D.	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(1)	\$	4.85	6/18/2017	-		-
	66,667	33,333(2)	\$	2.73	12/12/2017	-		-
	75,000	25,000(3)	\$	0.70	5/13/2019			
		150,000(4)	\$	2.85	12/31/2019			
	-	-		-	-		\$ 197,33	
	-	-		-	-	300,000(6)	\$ 888,00	
	-	-		-	-	150,000(7)	\$ 444,00	)0
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(8)	\$	4.85	6/18/2017	-		-
	50,000	25,000(9)	\$	2.73	12/12/2017	-		-
	20,000	40,000(10)		2.14	6/25/2018	-		-
	75,000	25,000(11)		0.70	5/13/2019			
	-	50,000(12)	\$	2.85	12/31/2019	100.000	Ф 200000	20
	-	-		-	-	100,000(13)		
	-	-		-	-	50,000(14)	\$ 148,00	JU

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

- (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.

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

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

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

<sup>(5)</sup> 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.

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

<sup>(7)</sup> 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.

<sup>(13)</sup> 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 of each 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	 Earned or l in Cash	Option Awards <sup>(1)</sup>	estricted ck Awards	 All Other npensation	 Total
Jonathan Lewis, M.D., Ph.D. <sup>(2)</sup>	\$ -			\$ -	\$ -
Richard E. Bagley <sup>(2)</sup>	\$ -			\$ -	\$ -
Murray Brennan	\$ 37,000(3)	\$ 24,525	\$ 83,175	\$ -	\$ 144,700
James A. Cannon	\$ 35,000(4)	\$ 24,525	\$ 83,175	\$ -	\$ 142,700
Gary S, Fragin	\$ 29,000(5)	\$ 24,525	\$ 83,175	\$ -	\$ 136,700
Wyche Fowler, Jr., J.D.	\$ 30,000(6)	\$ 24,525	\$ 83,175	\$ -	\$ 137,700
Timothy McInerney	\$ 26,000(7)	\$ 24,525	\$ 83,175	\$ -	\$ 133,700
Michael Weiser, M.D., Ph.D.	\$ 26,000(8)	\$ 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	M	ember
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.

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 <a href="https://www.ziopharm.com">www.ziopharm.com</a> and a copy may be obtained without charge upon written request to the Company's President at the Company's headquarters address.

#### Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The Company's 2003 Stock Option Plan (the "2003 Plan"), which is currently the Company's only equity compensation plan, has 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:

Plan Category	Number of Securities to Be Issued Upon Exercise of Outstanding Options (A)	Weighted- Average Exercise Price of Outstanding Options (B)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (A)) (C)
Equity compensation plans approved by stockholders:			
2003 Stock Option Plan	3,533,436	\$ 2.82	368,817
Total:	3,533,436	\$ 2.82	368,817
Equity compensation plans not approved by stockholders:			
2000 individual option grant <sup>(1)</sup>	1,250	\$ 20.00	
Total:	1,250	\$ 20.00	

(1) Represents a stock option that is scheduled to expire on December 20, 2010.

Additional information in response to this Item is incorporated herein by reference to our definitive proxy statement to be filed pursuant to Regulation 14A within 120 days after the end of the fiscal year covered by this form 10-K.

The following table summarizes certain information regarding the beneficial ownership (as such term is defined in Rule 13d-3 under the Securities Exchange Act of 1934) of our outstanding common stock as of April 27, 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.

Richard E. Bagley       780,280(3)       1.849         George B. Abercrombie       25,000       *         Murray Brennan, M.D.       150,863(4)       *         James A. Cannon       413,363(5)       *         Senator Wyche Fowler, Jr., J.D.       150,863(4)       *         Gary S. Fragin       150,863(4)       *         Timothy McInerney       596,507(6)       1.429         Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.209		Shares of Common Stock	Percentage of Common Stock
Jonathan Lewis, M.D., Ph.D.       1,502,060(2)       3.529         Richard E. Bagley       780,280(3)       1.849         George B. Abercrombie       25,000       *         Murray Brennan, M.D.       150,863(4)       *         James A. Cannon       413,363(5)       *         Senator Wyche Fowler, Jr., J.D.       150,863(4)       *         Gary S. Fragin       150,863(4)       *         Timothy McInerney       596,507(6)       1.429         Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.209         QVT Financial GP LLC       5,806,500(9)       13.299	d Address of Beneficial Owner		•
Richard E. Bagley       780,280(3)       1.849         George B. Abercrombie       25,000       *         Murray Brennan, M.D.       150,863(4)       *         James A. Cannon       413,363(5)       *         Senator Wyche Fowler, Jr., J.D.       150,863(4)       *         Gary S. Fragin       150,863(4)       *         Timothy McInerney       596,507(6)       1.429         Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.209         QVT Financial GP LLC       5,806,500(9)       13.299	Lewis, M.D., Ph.D.		3.52%
George B. Abercrombie       25,000       *         Murray Brennan, M.D.       150,863(4)       *         James A. Cannon       413,363(5)       *         Senator Wyche Fowler, Jr., J.D.       150,863(4)       *         Gary S. Fragin       150,863(4)       *         Timothy McInerney       596,507(6)       1.429         Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.209         QVT Financial GP LLC       5,806,500(9)       13.299		780,280(3)	1.84%
Murray Brennan, M.D.       150,863(4)       *         James A. Cannon       413,363(5)       *         Senator Wyche Fowler, Jr., J.D.       150,863(4)       *         Gary S. Fragin       150,863(4)       *         Timothy McInerney       596,507(6)       1.42%         Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.20%         QVT Financial GP LLC       5,806,500(9)       13.29%		25,000	*
Senator Wyche Fowler, Jr., J.D.       150,863(4)       *         Gary S. Fragin       150,863(4)       *         Timothy McInerney       596,507(6)       1.42%         Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.20%         QVT Financial GP LLC       5,806,500(9)       13.29%		150,863(4)	*
Gary S. Fragin       150,863(4)       *         Timothy McInerney       596,507(6)       1.429         Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.209         QVT Financial GP LLC       5,806,500(9)       13.299	Cannon	413,363(5)	*
Timothy McInerney       596,507(6)       1.429         Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.209         QVT Financial GP LLC       5,806,500(9)       13.299	vyche Fowler, Jr., J.D.	150,863(4)	*
Michael Weiser, M.D., Ph.D.       263,193(7)       *         All current executive officers and directors as a group       4,057,962(8)       9.20%         QVT Financial GP LLC       5,806,500(9)       13.29%	ragin	150,863(4)	*
All current executive officers and directors as a group  QVT Financial GP LLC  5,806,500(9)  9.209  13.299	McInerney	596,507(6)	1.42%
QVT Financial GP LLC 5,806,500(9) 13.299	Veiser, M.D., Ph.D.	263,193(7)	*
	it executive officers and directors as a group	4,057,962(8)	9.20%
1177 Avenue of the Americas, 9th Floor	ancial GP LLC	5,806,500(9)	13.29%
New York, NY 10036			
·		3,332,001(10)	7.73%
c/o Special Situations Funds	cial Situations Funds		
527 Madison Avenue, Suite 2600			
New York, NY 10022	ork, NY 10022		
Merlin BioMed Private Equity Advisors, LLC 2,419,500(11) 5.799	oMed Private Equity Advisors, LLC	2,419,500(11)	5.79%
230 Park Avenue, Suite 928	k Avenue, Suite 928		
New York, NY 10169	ork, NY 10169		
Great Point Partners, LLC 2,419,500(12) 5.689	nt Partners, LLC	2,419,500(12)	5.68%
165 Mason Street, 3rd Floor	son Street, 3rd Floor		
Greenwich, CT 06830	rich, CT 06830		
Essex Woodlands Health Ventures Fund VI LP 2,296,652(13) 5.45%	odlands Health Ventures Fund VI LP	2,296,652(13)	5.45%
1001 Woodloch Forest Drive, Suite 175	oodloch Forest Drive, Suite 175		
The Woodlands, TX 77380	odlands, TX 77380		

<sup>\*</sup> Less than 1%

<sup>(1)</sup> 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.

<sup>(2)</sup> 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.

<sup>(3)</sup> Includes 571,125 shares issuable upon the exercise of stock options that are currently exercisable or will become exercisable within the next 60 days.

<sup>(4)</sup> 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.
- 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.
- Based on the most recent 13G filed with the Securities and Exchange Commission on February 12, 2010. Austin M. Marxe ("Marxe") 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"). Marxe and Greenhouse are members of MG Advisers L.L.C. ("MG"), the general partner of Special Situations Private Equity Fund, L.P. ("SSPE"). Marxe 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 Marxe 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 Eufe 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.
- 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.
- 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 BVG and BOVF.
- 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.

#### Item 13. Certain Relationships and Related Transactions, and Director Independence

#### Related Party 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 the 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.

#### Director Independence

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 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. The current members of the committees are as follows:

Director		Audit	Coi	npensation	Gove	orporate rnance and ominating
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			

#### **Item 14. Principal Accountant Fees and Services**

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.

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

<sup>(1)</sup> 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.

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.

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.

Audit Committee 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 & 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.

#### **PART IV**

#### Item 15. Exhibits, Financial Statement Schedules

(1) Financial Statements:

See Part II, Item 8 — Financial Statements of our original filing of this Form 10-K.

(2) Financial Statement Schedules:

Schedules are omitted because they are not applicable, or are not required, or because the information is included in the financial statements and notes thereto.

(3) Exhibits:

The exhibits which are filed or furnished with this report or which are incorporated herein by reference are set forth in the Exhibit Index beginning on page  $\underline{A}$ - $\underline{1}$ , which is incorporated herein by reference.

#### **SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Amendment No. 1 to this report to be signed on its behalf by the undersigned, thereunto duly authorized.

By:

ZIOPHARM ONCOLOGY, INC.

By: /s/ Jonathan Lewis

Jonathan Lewis

Chief Executive Officer (Principal Executive Officer)

Date: April 30, 2010

Date: April 30, 2010

/s/ Richard Bagley

Richard Bagley

President, Chief Financial Officer, Treasurer and

Chief Operating Officer

(Principal Financial and Accounting Officer)

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#### INDEX

Exhibit No.	Description of Document
1.1	Underwriting Agreement dated December 4, 2009 between ZIOPHARM Oncology, Inc. and JMP Securities LLC, as
1.1	representative of the several underwriters named thererin (incorporated by reference to Exhibit 1.1 to the Registrant's Current
	Report of Form 8-K filed December 8, 2009).
2.1	Agreement and Plan of Merger among the Registrant (formerly "EasyWeb, Inc."), ZIO Acquisition Corp. and ZIOPHARM, Inc.,
	dated August 3, 2005 (incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K filed August 9, 2005).
3.1	Amended and Restated Certificate of Incorporation, as filed with the Delaware Secretary of State on April 26, 2006 (incorporated
	by reference to Exhibit 3.1 to the Registrant's Current Report of Form 8-K filed April 26, 2006).
3.2	Certificate of Merger dated September 13, 2005, relating to the merger of ZIO Acquisition Corp. with and into ZIOPHARM, Inc.
	(incorporated by reference to Exhibit 3.1 to the Registrant's Form 8-K filed September 19, 2005).
3.3	Certificate of Ownership of the Registrant (formerly "EasyWeb, Inc.") dated as of September 14, 2005, relating the merger of
	ZIOPHARM, Inc. with and into the Registrant, and changing the Registrant's corporate name from EasyWeb, Inc. to ZIOPHARM
	Oncology, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Form 8-K filed September 19, 2005).
3.4	Bylaws, as amended to date (incorporated by reference to Exhibit 3.3 to the Registrant's Form 8-K filed September 19, 2005).
4.1	Specimen common stock certificate. (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form
	SB-2, SEC File No. 333-129020, filed October 14, 2005).
4.2	Form of Warrant issued to placement agents in connection with ZIOPHARM, Inc. 2005 private placement (incorporated by
	reference to Exhibit 4.2 to the Registrant's Registration Statement on Form SB-2, SEC File No. 333-129020, filed October 14,
4.3	2005). Schedule identifying holders of Warrants in the form filed as Exhibit 4.2 to this Report (incorporated by reference to Exhibit 4.3 to
4.3	the Registrant's Registration Statement on Form SB-2, SEC File No. 333-129020, filed October 14, 2005).
4.4	Warrant for the Purchase of Shares of common stock dated December 23, 2004. (incorporated by reference to Exhibit 4.4 to the
7.7	Registrant's Registration Statement on Form SB-2, SEC File No. 333-129020, filed October 14, 2005).
4.5	Option for the Purchase of common stock dated October 15, 2004 and issued to DEKK-Tec, Inc. (incorporated by reference to
	Exhibit 4.5 to the Registrant's Annual Report on Form 10-KSB filed March 20, 2006).
4.6	Form of Option for the Purchase of Shares of common stock dated August 30, 2004 and issued to The University of Texas M. D.
	Anderson Cancer Center. (incorporated by reference to Exhibit 4.6 to the Registrant's Annual Report on Form 10-KSB filed March
	20, 2006).
4.7	Schedule identifying material terms of Options for the Purchase of Shares of common stock in the form filed as Exhibit 4.6 to this
	Report. (incorporated by reference to Exhibit 4.7 to the Registrant's Annual Report on Form 10-KSB filed March 20, 2006).
4.8	Form of common stock Purchase Warrant issued to investors in connection with the Registrant's 2006 private placement
	(incorporated by reference to Exhibit 4.1 to the Registrant's Current Report of Form 8-K filed May 3, 2006).
4.9	Form of common stock Purchase Warrant issued to placement agents in connection with the Registrant's 2006 private placement
	(incorporated by reference to Exhibit 4.2 to the Registrant's Current Report of Form 8-K filed May 3, 2006).

Exhibit No.	Description of Document
4.10	Form of Warrant to Purchase Common Stock issued to investors in connection with the Registrant's February 2007 private
4.10	placement (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report of Form 8-K filed February 26, 2007).
4.11	Form of Warrant to Purchase Common Stock issued to placement agents in connection with the Registrant's February 2007 private
4.11	placement (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report of Form 8-K filed February 26, 2007).
4.12	Form of Warrant to Purchase Common Stock issued to investors in connection the Registrant's September 2009 private placement
4.12	(incorporated by reference to Exhibit 4.1 to the Registrant's Current Report of Form 8-K filed September 250.3).
4.13	Form of Warrant to Purchase Common Stock issued to placement agents in connection with the Registrant's September 2009
4.13	private placement (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report of Form 8-K filed September 15,
	2009).
4.14	Form of Warrant to Purchase Common Stock issued to investors in connection with the Registrant's December 2009 public
	offering (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report of Form 8-K filed December 8, 2009).
4.15	Form of Warrant to Purchase Common Stock issued to underwriters in connection with the Registrant's December 2009 public
	offering (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report of Form 8-K filed December 8, 2009).
10.1	2003 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form SB-2,
	SEC File No. 333-129020, filed October 14, 2005).
10.2	Amendment No. 1 to 2003 Stock Incentive Plan of ZIOPHARM Oncology, Inc. (incorporated by reference to Exhibit 3.1 to the
	Registrant's Current Report on Form 8-K filed April 26, 2006).
10.3	Amendment No. 2 to 2003 Stock Incentive Plan of ZIOPHARM Oncology, Inc. (incorporated by reference to Exhibit 10.1 to the
	Registrant's Quarterly Report on Form 10-QSB filed May 2, 2007).
10.4	Amendment No. 3 to 2003 Stock Incentive Plan of ZIOPHARM Oncology, Inc. (incorporated by reference to Exhibit 4.1 to the
	Registrant's Registration Statement on Form SB-2, SEC File No. 333-160496, filed July 9, 2009).
10.5	Employment Agreement dated as of January 8, 2008 by and between the Registrant and Dr. Jonathan Lewis. (incorporated by
	reference to exhibit 10.6 to the Registrant's Annual Report on Form 10-KSB filed February 21, 2008).
10.6	Employment Agreement dated as of June 25, 2008 between the Registrant and Richard E. Bagley (incorporated by reference to
	Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed July 30, 2008).
10.7	Patent and Technology License Agreement dated August 24, 2004, among ZIOPHARM, Inc. (predecessor to the Registrant), the
	Board of Regents of the University of Texas System on behalf of the University of Texas M.D. Anderson Cancer Center and the
	Texas A&M University System (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form SB-
	2, SEC File No. 333-129020, filed October 14, 2005).++
10.8	License Agreement dated October 15, 2004, between ZIOPHARM, Inc. (predecessor to the Registrant) and DEKK-Tec, Inc.
	(incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form SB-2, SEC File No. 333-129020,
	filed October 14, 2005).++
10.9	Form of subscription agreement between the ZIOPHARM, Inc. and the investors in the Registrant's 2005 private placement
	(incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form SB-2, SEC File No. 333-129020,
	filed October 14, 2005).

Exhibit	
No.	Description of Document
10.10	Form of Incentive Stock Option Agreement granted under 2003 Stock Option Plan (incorporated by reference to Exhibit 10.7 to the Registrant's Annual Report on Form 10-KSB filed March 20, 2006).
10.11	Form of Employee Non-Qualified Stock Option Agreement granted under 2003 Stock Option Plan (incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-KSB filed March 20, 2006).
10.12	Form of Director Non-Qualified Stock Option Agreement granted under 2003 Stock Option Plan (incorporated by reference to Exhibit 10.9 to the Registrant's Annual Report on Form 10-KSB filed March 20, 2006).
10.13	Form of Subscription Agreement by and between ZIOPHARM Oncology, Inc. and investors in the ZIOPHARM Oncology, Inc. 2006 private placement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report of Form 8-K filed May 3, 2006).
10.14	Asset Purchase Agreement dated November 3, 2006 by and among Baxter Healthcare S.A., Baxter International, Inc., Baxter Oncology GmbH and ZIOPHARM Oncology, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-QSB filed November 13, 2006).++
10.15	License Agreement dated November 3, 2006 by and among Baxter Healthcare S.A., Baxter International, Inc. and ZIOPHARM Oncology, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10_QSB filed November 13, 2006).++
10.16	Amendment to License Agreement dated September 24, 2009 by and among Baxter Healthcare S.A., Baxter International, Inc. and ZIOPHARM Oncology, Inc.
10.17	Form of Securities Purchase Agreement by and between ZIOPHARM Oncology, Inc. and investors in the ZIOPHARM Oncology, Inc. February 2007 private placement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report of Form 8-K filed February 26, 2007).
10.18	Form of Registration Rights Agreement by and between ZIOPHARM Oncology, Inc. and investors in the ZIOPHARM Oncology, Inc. February 2007 private placement (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report of Form 8-K filed February 26, 2007).
10.19	Form of Restricted Stock Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report of Form 8-K filed December 18, 2007).
10.20	Form of Securities Purchase Agreement dated September 9, 2009 by and between ZIOPHARM Oncology, Inc. and investors in the ZIOPHARM Oncology, Inc. September 2009 private placement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report of Form 8-K filed September 15, 2009).
10.21	Form of Registration Rights Agreement dated September 9, 2009 by and between ZIOPHARM Oncology, Inc. and investors in the ZIOPHARM Oncology, Inc. September 2009 private placement (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report of Form 8-K filed September 15, 2009).
23.1	Consent of Independent Registered Public Accounting Firm — Caturano and Company, P.C. (Previously filed as an exhibit to the Registrant's Form 10-K for the year ended December 31, 2009 filed with the Commission on March 17, 2010.)
31.1	Certification of Chief Executive Officer pursuant to Securities Exchange Act Rule 13a-15(e)/15d-15(e) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Securities Exchange Act Rule 13a-15(e)/15d-15(e) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Exhibit No.	Description of Document
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

++ Confidential treatment has been granted as to certain portions of this exhibit pursuant to Rule 406 of the Securities Act of 1933, as amended, or Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit No.	Description of Document
31.1	Certification of Chief Executive Officer pursuant to Securities Exchange Act Rule 13a-15(e)/15d-15(e) as adopted pursuant to
	Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Securities Exchange Act Rule 13a-15(e)/15d-15(e) as adopted pursuant to
	Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the
	Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the
	Sarbanes-Oxley Act of 2002.
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#### CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

- I, Jonathan Lewis, certify that:
- 1. I have reviewed this amendment to the annual report on Form 10-K/A of ZIOPHARM Oncology, Inc.; and
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: April 30, 2010

/s/ Jonathan Lewis

Jonathan Lewis, Chief Executive Officer (Principal Executive Officer)

#### CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

#### I, Richard Bagley, certify that:

- 1. I have reviewed this amendment to the annual report on Form 10-K/A of ZIOPHARM Oncology, Inc.; and
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: April 30, 2010

/s/ Richard E. Bagley

Richard E. Bagley, President and Chief Financial Officer (Principal Financial and Accounting Officer)

# CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of ZIOPHARM Oncology, Inc. (the "Company") on Form 10-K for the year ended December 31, 2009, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jonathan Lewis, Principal Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Jonathan Lewis

Jonathan Lewis, Chief Executive Officer (Principal Executive Officer) April 30, 2010

# CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of ZIOPHARM Oncology, Inc. (the "Company") on Form 10-K for the year ended December 31, 2009, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Richard Bagley, Principal Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Richard E. Bagley

Richard E. Bagley, President and Chief Financial Officer (Principal Financial and Accounting Officer) April 30, 2010