



7015 Albert Einstein Drive
Columbia, Maryland 21046
Phone: 443.545.1800
Fax: 443.545.1701

www.Osiris.com

April 24, 2009

Dear Stockholder,

You are cordially invited to attend the 2009 Annual Meeting of Stockholders of Osiris Therapeutics, Inc. to be held at 2:00 p.m. Eastern Daylight Time ("EDT"), on Friday, May 22, 2009, at the offices of Osiris Therapeutics, Inc., 7015 Albert Einstein Drive, Columbia, Maryland 21046.

Enclosed with this letter is a Notice of Annual Meeting, a Proxy Statement, and a Proxy Card and return envelope. Both the Notice of Annual Meeting and Proxy Statement provide details of the proposals to be considered and business that we will conduct at the Annual Meeting, and other information about Osiris Therapeutics, Inc. that you should consider when you vote your shares. At the Annual Meeting, we will ask you to:

- Elect one Class III director;
- Ratify the appointment of Grant Thornton LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009; and
- Transact any other business that is properly presented at the Annual Meeting.

We hope you will be able to attend the Annual Meeting. Your vote is important. Whether or not you plan to attend the Annual Meeting, we urge you to vote. You are urged to vote by signing, dating and promptly returning the proxy card in the enclosed prepaid return envelope. Your proxy will be voted at the Annual Meeting in accordance with your instructions. If you do not specify a choice on one of the proposals described in this proxy statement, your proxy will be voted as recommended by the Board of Directors. If you hold your shares through an account with a brokerage firm or other nominee or fiduciary such as a bank, please follow the instructions you receive from such brokerage firm or other nominee or fiduciary to vote your shares. Of course, if you attend the Annual Meeting you may vote in person. If you plan to attend the meeting, please mark the appropriate box on the enclosed proxy card. You may be asked to present valid picture identification at the Annual Meeting, such as a driver's license or passport. Cameras, recording devices and other electronic devices will not be permitted at the meeting.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Randal Mills". The signature is fluid and cursive, with a long horizontal stroke at the end.

C. Randal Mills, Ph.D.
President and Chief Executive Officer

YOUR VOTE IS IMPORTANT.
PLEASE RETURN YOUR PROXY CARD PROMPTLY.

OSIRIS THERAPEUTICS, INC.

NOTICE OF 2009 ANNUAL MEETING OF STOCKHOLDERS

TIME: 2:00 p.m. EDT

DATE: May 22, 2009

PLACE: The offices of OSIRIS THERAPEUTICS, INC., 7015 Albert Einstein Drive, Columbia, Maryland 21046

PURPOSES:

1. To elect a Class III member of the Board of Directors, to serve for a three-year term expiring at the annual meeting of stockholders to be held in 2012 and until his successor shall be duly elected and qualified.
2. To ratify the appointment of Grant Thornton LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009.
3. To consider any other business that is properly presented at the Annual Meeting and any postponements or adjournments thereof.

The Board of Directors recommends a vote **FOR** the election of Peter Friedli as a Class III director and **FOR** the ratification of appointment of Grant Thornton LLP as Osiris Therapeutics, Inc.'s independent registered public accounting firm for the fiscal year ending December 31, 2009.

WHO MAY VOTE:

You may vote if you were the record owner of OSIRIS THERAPEUTICS, INC. common stock at the close of business on April 24, 2009. A list of stockholders of record will be available at the Annual Meeting and during the 10 days prior to the meeting, at the office of the Corporate Secretary at the above address.

All stockholders are cordially invited to attend the Annual Meeting. Whether you plan to attend the Annual Meeting or not, you are requested to complete, sign, date and return the enclosed proxy card as soon as possible in accordance with the instructions on the proxy card. A pre-addressed, postage prepaid return envelope is enclosed for your convenience.

BY ORDER OF THE BOARD OF DIRECTORS



Philip R. Jacoby, Jr.
Corporate Secretary

April 24, 2009

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April 24, 2009

PROXY STATEMENT FOR 2009 ANNUAL MEETING OF STOCKHOLDERS

This proxy statement provides information that you should read before you vote on the proposals that will be presented at the 2009 Annual Meeting of Stockholders of Osiris Therapeutics, Inc. The 2009 Annual Meeting will be held on May 22, 2009, at 2:00 p.m., EDT, at Osiris Therapeutics, Inc.'s principal executive office, located at 7015 Albert Einstein Drive, Columbia, Maryland 21046.

On or about April 27, 2009, we began mailing this proxy statement, accompanying proxy card and Osiris Therapeutics, Inc.'s 2008 Annual Report to Stockholders, to stockholders who according to our records owned shares of our common stock at the close of business on April 24, 2009. For those stockholders located outside of the United States, notice is also being sent by email or facsimile to any email or facsimile number provided to us by the stockholder, and appearing on our records.

This proxy statement and the accompanying annual report to stockholders are also available electronically at <http://www.osiris.com>.

GENERAL INFORMATION ABOUT THE ANNUAL MEETING

Why Did You Send Me this Proxy Statement?

We sent you this proxy statement and the enclosed proxy card because the Board of Directors of OSIRIS THERAPEUTICS, INC. is soliciting your proxy to vote at the 2009 Annual Meeting of Stockholders to be held at our offices, 7015 Albert Einstein Drive, Columbia, Maryland 21046, on Friday, May 22, 2009, at 2:00 p.m. EDT, and at any adjournments or postponements of the meeting. This proxy statement, along with the accompanying Notice of Annual Meeting of Stockholders, summarizes the purposes of the meeting and the information you need to know to vote at the Annual Meeting.

On April 27, 2009, we began sending this proxy statement, the attached Notice of Annual Meeting and the enclosed proxy card to all stockholders entitled to vote at the meeting. Although not part of this proxy statement, we are also sending along with the proxy statement our 2008 Annual Report to Stockholders.

Who Can Vote?

Only stockholders who owned our common stock of record at the close of business on April 24, 2009, the record date for the Annual Meeting, are entitled to vote at the Annual Meeting. On this record date, there were 32,693,857 shares of our common stock outstanding and entitled to vote. We have no shares of any other class of capital stock outstanding.

You do not need to attend the Annual Meeting to vote your shares. Shares represented by valid proxies, received in time for the meeting and not revoked prior to the meeting, will be voted at the meeting. A stockholder may revoke a proxy before the proxy is voted by delivering to our Corporate Secretary a signed statement of revocation or a duly executed proxy card bearing a later date. Any stockholder who has executed a proxy card but attends the meeting in person may revoke the proxy and vote at the meeting.

How Many Votes Do I Have?

Each share of our common stock that you own entitles you to one vote.

How Do I Vote?

Whether you plan to attend the Annual Meeting or not, we urge you to vote by proxy. Voting by proxy will not affect your right to attend the Annual Meeting. If your shares are registered directly in your name through our stock transfer agent, StockTrans, Inc., or you have stock certificates, you may vote by mail or in person. If by mail, please complete, sign and date the enclosed proxy card and return it promptly in the envelope provided. If you attend the meeting, you may deliver your completed proxy card in person or you may vote by completing a ballot, which will be available at the meeting.

If your shares are held in "street name" (held in the name of a bank, broker or other nominee), you must provide the bank, broker or other nominee with instructions on how to vote your shares and can do so as follows:

- **By mail.** Complete, sign and date the enclosed proxy card and return it promptly in the envelope provided.
- **In person at the meeting.** Contact the broker or other nominee who holds your shares to obtain a broker's proxy card and bring it with you to the meeting. You will not be able to vote at the meeting unless you have a proxy card from your broker.

If you properly fill in your proxy card and send it to us in time, your “proxy” (one of the individuals named on your proxy card) will vote your shares as you have directed. If you sign the proxy card but do not make specific choices, your proxy will vote your shares as recommended by the Board of Directors.

How Does the Board of Directors Recommend That I Vote on the Proposals?

The Board of Directors recommends that you vote as follows:

- “**FOR**” the election of the nominee proposed by the Board for election as the Class III director; and
- “**FOR**” the ratification of the appointment of Grant Thornton LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2009.

If any other matter is presented, the proxy card provides that your shares will be voted by the proxy holder listed on the proxy card in accordance with his best judgment. At the time this proxy statement was printed, we knew of no matters that needed to be acted on at the Annual Meeting, other than those discussed in this proxy statement.

May I Revoke My Proxy?

If you give us your proxy, you may revoke it at any time before the meeting. You may revoke your proxy in any one of the following ways:

- by signing a new proxy card and submitting it as instructed above;
- by notifying our Corporate Secretary in writing before the Annual Meeting that you have revoked your proxy; or
- by attending the meeting in person and voting in person. Attending the meeting in person will not in and of itself revoke a previously submitted proxy unless you specifically request it.

What if I Receive More Than One Proxy Card?

You may receive more than one proxy card or voting instruction form if you hold shares of our common stock in more than one account, which may be in registered form or held in street name. Please vote in the manner described under “How Do I Vote?” for each account to ensure that all of your shares are voted.

Will My Shares be Voted if I Do Not Return My Proxy Card?

If your shares are registered in your name or if you have stock certificates, they will not be voted if you do not return your proxy card by mail or vote at the meeting as described above under “How Do I Vote?” If your shares are held in street name and you do not provide voting instructions to the bank, broker or other nominee that holds your shares as described above under “How Do I Vote?,” the bank, broker or other nominee generally has the discretionary authority to vote your unvoted shares on both Proposals 1 and 2 even if it does not receive instructions from you. We encourage you to provide voting instructions. This ensures your shares will be voted at the meeting in the manner you desire. If your broker determines that it cannot vote your shares on a particular matter because it has not received instructions from you and does not have discretionary voting authority on that matter, this is referred to as a “broker non-vote.”

What Vote is Required to Approve Each Proposal and How are Votes Counted?

Proposal 1: Election of Director A plurality of the votes cast is required to elect a director. The individual receiving the most votes will be elected. Abstentions are not counted for purposes of electing directors. You may vote either FOR the nominee or WITHHOLD your vote from the nominee. Votes that are withheld will not be included in the vote tally for the election of directors. Brokerage firms generally have authority to vote customers' unvoted shares held by the firms in street name for the election of directors. If a broker does not exercise this authority but the shares are nevertheless present at the Annual Meeting, such broker non-votes will have no effect on the results of this vote.

Proposal 2: Ratify Selection of
Independent Registered Public
Accounting Firm Approval of the proposal to ratify the appointment of Grant Thornton LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009 requires the affirmative vote of the holders of a majority of the votes present in person or represented by proxy and entitled to be cast at the Annual Meeting, assuming the presence of a quorum. A properly executed proxy marked ABSTAIN with respect to such proposal will have the effect of a negative vote. Broker non-votes are not considered as votes entitled to be cast on the matter, and thus will have no effect on the result of the vote. We are not required to obtain the approval of our stockholders to select our independent registered public accounting firm. However, if our stockholders do not ratify the selection of Grant Thornton LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009, the Audit Committee of our Board of Directors may determine to reconsider its selection.

Who Will Bear the Costs of Soliciting these Proxies?

We will pay all of the costs of soliciting these proxies. Our directors and employees may solicit proxies in person or by telephone, fax or email. We will pay these employees and directors no additional compensation for these services. We will ask banks, brokers and other institutions, nominees and fiduciaries to forward these proxy materials to their principals and to obtain authority to execute proxies. We will then reimburse them for their expenses.

How Many Shares Must be Present in Order to Hold the Annual Meeting?

The presence, in person or by proxy, of the holders of a majority of the outstanding shares of our common stock is necessary to constitute a quorum at the meeting. If a quorum is not represented at the meeting, the transaction of business at the meeting cannot occur. Votes of stockholders of record who are present at the meeting in person or by proxy, abstentions, and broker non-votes are all counted for purposes of determining whether a quorum exists.

PROPOSALS TO BE PRESENTED AT THE ANNUAL MEETING

PROPOSAL NO. 1—ELECTION OF DIRECTOR

The Board currently consists of five members, classified into three classes as follows: Jay M. Moyes and Gregory H. Barnhill constitute the Class I directors, with a term ending at the Annual Meeting to be held in 2010; C. Randal Mills and Felix Gutzwiller constitute the Class II directors, with a term ending at the Annual Meeting to be held in 2011; and Peter Friedli constitutes the Class III director, with a term ending at the upcoming Annual Meeting. In each case, subject to earlier death, resignation, removal or retirement, the directors remain in office until their respective successors are duly elected and qualified, notwithstanding the expiration of the otherwise applicable term.

On February 23, 2009, our Board accepted the recommendation of its independent directors to nominate Mr. Friedli for re-election at the Annual Meeting for a term of three years to serve until the 2012 Annual Meeting of Stockholders, and until his successor has been elected and qualified, or until his earlier death, resignation, retirement or removal.

Unless authority to vote for this nominee is withheld, the shares represented by a validly executed proxy will be voted FOR the election of Mr. Friedli as the Class III director. In the event that the nominee should become unable or unwilling to serve, the shares represented by a validly executed proxy will be voted for the election of such other person as the Board may recommend in his place, unless the Board chooses to reduce the number of directors serving on the Board. We have no reason to believe that the nominee will be unable or unwilling to serve as a director.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE ELECTION OF PETER FRIEDLI AS DIRECTOR AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN FAVOR THEREOF UNLESS A STOCKHOLDER HAS INDICATED OTHERWISE ON THE PROXY.

PROPOSAL NO. 2—RATIFICATION OF THE APPOINTMENT OF GRANT THORNTON LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2009

Our Board and management are committed to the quality, integrity and transparency of our financial reports. Independent auditors play an important part in our system of financial control. In accordance with the duties set forth in its written charter, the Audit Committee of our Board has appointed Grant Thornton LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009. A representative of Grant Thornton LLP is expected to attend this year’s Annual Meeting, to be available to respond to appropriate questions from stockholders, and have the opportunity to make a statement if he or she desires to do so.

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

The Board proposes that the stockholders ratify the appointment of Grant Thornton LLP to serve as our independent registered public accounting firm for our fiscal year ending December 31, 2009, although such ratification is not required under Delaware law or our Amended and Restated Certificate of Incorporation or Amended and Restated By-Laws.

Stegman & Company served as our independent registered public accounting firm until April 17, 2009 and audited our financial statements for the years ended December 31, 2003 through 2008. The audit reports of Stegman & Company on the Company’s financial statements, as of and for the fiscal

years ended December 31, 2008 and December 31, 2007, did not contain any adverse opinion or disclaimer of opinion, nor were such reports qualified or modified as to uncertainty, audit scope or accounting principles.

The audit report of Stegman & Company on the effectiveness of internal control over financial reporting as of December 31, 2008, did not contain any adverse opinion or disclaimer of opinion, and was not qualified or modified as to uncertainty, audit scope, or accounting principles. The audit report of Stegman & Company on management’s assessment of the effectiveness of internal control over financial reporting and the effectiveness of internal control over financial reporting as of December 31, 2007, did not contain any adverse opinion or disclaimer of opinion, and was not qualified or modified as to uncertainty, audit scope, or accounting principles.

During the fiscal years ended December 31, 2008 and December 31, 2007, and the interim period through April 17, 2009: (1) the Company had no disagreements with Stegman & Company on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of Stegman & Company, would have caused Stegman & Company to make reference to the subject matter of the disagreement in connection with its report; and (2) there have been no “reportable events” (as defined in Regulation S-K Item 304(a)(1)(v)).

During the fiscal years ended December 31, 2008 and December 31, 2007, and the interim period through April 17, 2009, the Company did not consult with Grant Thornton LLP regarding: (1) the application of accounting principles to a specified transaction, either proposed or completed, or the type of audit opinion that might be rendered on the Company’s financial statements; or (2) any matter or reportable event set forth in Item 304(a)(2)(i) or (ii) of Regulation S-K.

Auditor Services

Audit and Non-Audit Fees. Stegman & Company served as our independent registered public accountants for the years ended December 31, 2003 through December 31, 2008. The following is a summary of the fees charged to us by Stegman & Company for services rendered during the last two fiscal years:

<u>Type of Fee</u>	<u>Fiscal Year Ended 12/31/08</u>	<u>Fiscal Year Ended 12/31/07</u>
Audit Fees	\$177,920	\$138,909
Audit Related Fees	6,650	1,400
Tax Fees	17,500	10,550
All Other Fees	—	—
Total	<u>\$202,070</u>	<u>\$150,859</u>

Audit Fees—Fees for the audit of our annual financial statements and the audit of internal controls over financial reporting included in our report on Form 10-K, reviews of our quarterly financial statements included in our reports on Form 10-Q and accounting consultations related to transactions and the adoption of new accounting pronouncements.

Audit Related Fees—Fees for other audit related services, including other SEC filings, comfort letters and consents.

Tax Fees—Fees for preparation and review of tax returns and tax consultations.

All Other Fees—We did not engage Stegman & Company to perform any services other than those listed separately above.

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 principal 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 Stegman & Company have been pre-approved in accordance with the Audit Committee 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 2008, the Audit Committee has functioned in conformance with these procedures.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE RATIFICATION OF THE APPOINTMENT OF GRANT THORNTON LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDED DECEMBER 31, 2009, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN FAVOR OF SUCH RATIFICATION UNLESS A STOCKHOLDER HAS INDICATED OTHERWISE ON THE PROXY.

STOCKHOLDER PROPOSALS AND NOMINATIONS FOR DIRECTOR

In order to be eligible for inclusion in our proxy materials for next year's Annual Meeting of Stockholders, any stockholder proposal to take action at such meeting must be received at the offices of Osiris Therapeutics, Inc. at 7015 Albert Einstein Drive, Columbia, Maryland 21046, no later than December 27, 2009. Any such proposal shall be subject to the requirements of the proxy rules adopted under the Securities Exchange Act of 1934.

Our By-Laws require advance notice of business to be brought before a stockholders meeting, including nominations of persons for election as directors. Generally, to be timely, notice must be received by our Corporate Secretary no later than ninety (90) days prior to the day we released our proxy statement in connection with our previous year's annual meeting (or one hundred twenty (120) days if the business is to be included in our proxy statement, or in the case of stockholder nominations for election of directors); provided, however, that in the event that the date of the annual meeting is changed by more than thirty (30) days from the date of the prior year's annual meeting, notice by the stockholder, to be timely, must be so delivered no later than ninety (90) days prior to the newly announced date that we will mail our proxy statement. Any such notice must include information specified in our By-Laws, including information concerning the nominee or proposal, as the case may be, and information about the stockholder's ownership of our stock.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of April 24, 2009 for (a) the executive officers named in the Summary Compensation Table on page 19 of this proxy statement, (b) each of our executive officers and directors and director nominees, (c) all of our current directors and executive officers as a group and (d) each stockholder that we know to be the beneficial owner of more than 5% of our common stock. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. We deem shares of common stock that may be acquired by an individual or group within 60 days of April 24, 2009 pursuant to the exercise of options or warrants to be outstanding for the purpose of computing the percentage ownership of such individual or group, but those shares are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table. Except as indicated in footnotes to this table, we believe that the stockholders named in this table have sole voting and investment power with respect to all shares of common stock shown to be beneficially owned by them based on information provided to us by these stockholders. Percentage of ownership is based on 32,693,857 shares of common stock outstanding on April 24, 2009.

<u>Name and Address of Beneficial Owners</u>	<u>Amount and Nature of Beneficial Ownership</u>	<u>Percent of Class</u>
Executive Officers and Directors		
Gregory H. Barnhill	17,421	—
Harry E. Carmitchel, Jr.(1)	87,500	—
Lode Debrabandere(2)	48,750	—
Earl R. Fender(3)	—	—
Peter Friedli(4)	15,252,479	45.3%
Felix Gutzwiller	53,000	—
Richard W. Hunt(5)	—	—
Philip R. Jacoby, Jr.(6)	11,725	—
C. Randal Mills(7)	450,000	1.4%
Jay M. Moyes	7,500	—
Michelle LeRoux Williams(8)	26,895	—
All directors and executive officers as a group (11 persons)	15,955,170	46.8%
Other 5% Stockholders		
Venturetec, Inc. c/o Osiris Therapeutics, Inc. 7015 Albert Einstein Drive Columbia, Maryland 21046	4,153,310	12.7%
Thomas Schmidheiny(9) Zurcherstrasse 156 8645 Jona Switzerland	3,053,267	9.3%
BIH SA(9) 3 Faubourg de'Hopital 2000 Neuchatel, Switzerland	2,658,113	8.1%

- (1) Includes 70,000 shares owned directly by Mr. Carmitchel and 17,500 shares issuable upon the exercise of options.
- (2) Includes 48,750 shares issuable upon exercise of options.
- (3) Mr. Fender's employment terminated on April 23, 2008.

- (4) Includes 10,085,794 shares owned directly by Mr. Friedli; 1,000,000 shares issuable upon the exercise of outstanding warrants, assuming the warrants are exercised in full for cash; 2,750 shares owned by Mr. Friedli's spouse; 625 shares owned by Mr. Friedli's mother; 4,153,310 shares owned by Venturetec, Inc.; and 10,000 shares owned by Madison Partners, Inc. Mr. Friedli is President of Venturetec, Inc. and Madison Partners, Inc.
- (5) Mr. Hunt's employment commenced on July 23, 2008.
- (6) Includes 8,850 shares owned directly by Mr. Jacoby and 2,875 shares issuable upon the exercise of options.
- (7) Includes 123,000 shares owned directly by Dr. Mills; 2,000 shares owned in custodial accounts where Dr. Mills is the custodian; and 325,000 shares issuable upon the exercise of options.
- (8) Includes 26,895 shares issuable upon exercise of options.
- (9) Includes 395,154 shares owned directly by Mr. Schmidheiny and 2,658,113 shares owned by BIH, SA. Mr. Schmidheiny is the Chairman and controlling shareholder of BIH SA.

MANAGEMENT—Information About the Board of Directors and Committees / Corporate Governance

Board of Directors

Our Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws provide that our business is to be managed by or under the direction of our Board of Directors (the "Board"). Our Board is divided into three classes for purposes of election. One class is elected at each annual meeting of stockholders to serve for a three-year term and until their respective successors are duly elected and qualified.

The members of our Board, as well as their respective committee memberships are as follows:

Name	Age	Positions	Committee Membership	
			Audit	Compensation
Peter Friedli	55	Chairman of the Board of Directors		
C. Randal Mills, Ph.D.	37	President & Chief Executive Officer		
Felix Gutzwiller, M.D., Dr.P.H.	61	Chairman, Compensation Committee	X	X
Jay M. Moyes	55	Chairman, Audit Committee	X	
Gregory H. Barnhill	55	Director	X	X

Our Board currently consists of five members, classified into three classes as follows: Gregory H. Barnhill and Jay M. Moyes constitute a class with a term ending at the Annual Meeting of Stockholders in 2010 (the "Class I directors"); C. Randal Mills, Ph.D., and Felix Gutzwiller, M.D., Dr.P.H. constitute a class with a term ending at the Annual Meeting of Stockholders in 2011 (the "Class II directors"); and Peter Friedli constitutes a class with a term ending at this Annual Meeting (the "Class III director"). In each case, the directors remain in office notwithstanding the expiration of the otherwise applicable term, until their respective successors have been duly elected and qualified, or until their earlier death, resignation, retirement or removal.

On February 23, 2009, our Board, upon the recommendation and with the approval of our independent directors determined to nominate Mr. Friedli for election at the Annual Meeting for a term of three years to serve until the 2012 Annual Meeting of Stockholders, and until his successor has been elected and qualified, or until his earlier death, resignation, retirement or removal.

Set forth below are the names of the persons nominated as directors and directors whose terms do not expire this year, their ages, the officer positions held by them at Osiris, if any, their principal

occupations or employment for at least the past five years, the length of their tenure as directors and the names of other public companies in which such persons hold directorships:

Peter Friedli, age 55, is our Chairman of the Board and was co-founder of Osiris. Mr. Friedli has been a director of Osiris since January 1996, except for the period between February and June 2004. Since 1996, he has been a principal of the investment-banking firm Friedli Corporate Finance, Inc., a leading Swiss venture capital firm which has made significant investments in the biotechnology industry and has been the primary source of financing for Osiris. Mr. Friedli is also President of New Venturetec Ltd., a Swiss publicly traded investment company. Mr. Friedli has extensive experience as an independent investment manager in venture capital and has specialized in investments domiciled in the United States in the areas of biotechnology and technology. Previously, he worked in the field of international management consulting for service and industrial companies in Europe and the United States. Mr. Friedli is a director of Invenda, Inc., a publicly traded provider of interactive database marketing technologies and services. He also serves as a director in certain private companies.

C. Randal Mills, Ph.D., age 37, is our President and Chief Executive Officer and joined us in this capacity in July 2004. Dr. Mills has also been a member of our Board since July 2004. Prior to joining Osiris, Dr. Mills was an executive officer of Regeneration Technologies, Inc. (“RTI”) (NASDAQ—RTIX). Dr. Mills served in several leadership positions at RTI from its formation in 1998 until 2004, including Vice President of Business Development and Vice President of Operations and R&D. Prior to RTI, Dr. Mills was a member of the founding management team of the University of Florida Tissue Bank, Inc., the predecessor company to RTI. Dr. Mills received a bachelor’s degree in microbiology and cell science and a Ph.D. in drug development, both from the University of Florida.

Felix Gutzwiller, M.D., Dr.PH., age 61, has been a member of our Board since 2003, and is Professor and Chairman of the Department of Public Health of the University of Zurich Medical School. Dr. Gutzwiller is also an elected member of the Swiss Parliament. Dr. Gutzwiller received a medical degree from the University of Basel in 1974 and did his post-graduate training at both Harvard University and Johns Hopkins University. He received his Dr.PH. from the Johns Hopkins University School of Hygiene and Public Health in 1980. Dr. Gutzwiller has received many honors and awards over the years in the health profession.

Jay M. Moyes, age 55, has been a member of our Board since the completion of our initial public offering in August 2006. In May 2008, Mr. Moyes became the Chief Financial Officer of XDx, Inc. Prior to that, Mr. Moyes has served as the Chief Financial Officer of Myriad Genetics, Inc. from June 1996 until his retirement in November 2007, and served as Myriad’s Vice President of Finance from July 1993 until July 2005. From 1991 to 1993, Mr. Moyes served as Vice President of Finance and Chief Financial Officer of Genmark, Inc. Mr. Moyes held various positions with the accounting firm of KPMG LLP from 1979 through 1991, most recently as a Senior Manager. He holds an M.B.A. degree from the University of Utah, a B.A. degree in economics from Weber State University, and is a Certified Public Accountant. Mr. Moyes has also served as a member of the Board of Trustees of the Utah Life Science Association from 1999 through 2006.

Gregory H. Barnhill, age 55, has been a member of our Board since the completion of our initial public offering in August 2006. Mr. Barnhill has served as a Partner and Member of the board of directors of Brown Advisory Securities, LLC since 2003. Mr. Barnhill is also a member of numerous philanthropic and corporate boards. From 1975 to 2003, Mr. Barnhill held various positions with Deutsche Bank Securities, Inc., most recently as Managing Director and Regional Manager, North American Equity Sales. He holds a B.A. degree in economics from Brown University. Mr. Barnhill holds NYSE/NASD licenses series 7, 63, 9 and 10 as well as life, health and variable annuities insurance licenses.

Our Board has determined that the following members of the Board qualify as “independent” under the definition promulgated by The NASDAQ Stock Market, Inc: Mr. Moyes, Dr. Gutzwiller, and

Mr. Barnhill. Furthermore, our Board has determined that none of the members of the two standing committees of the Board has any material relationship with us (either directly or as a partner, stockholder or officer of an organization that has a relationship with us), and therefore, each committee is “independent” within the meaning of our independence standards.

Committees of the Board of Directors and Meetings

As described below, our Board has an Audit Committee and a Compensation Committee. The Board does not have a Nominating Committee, but all nominations of directors require approval by a majority of our independent directors.

Meeting Attendance. During the year ended December 31, 2008, there were eight meetings of the Board, and the various committees of the Board met a total of five times. During 2008, no then-incumbent director attended fewer than 75% of the total number of meetings of the Board and committees on which the director served. We do not have a policy on director attendance at Annual Meetings, but all of our directors are invited and encouraged to attend Annual Meetings.

Audit Committee. Our Audit Committee met four times during 2008. This committee currently has three members, Mr. Moyes (Chairman), Dr. Gutzwiller and Mr. Barnhill. Our Audit Committee has the authority to retain and terminate the services of our independent registered public accounting firm, reviews annual financial statements, considers matters relating to accounting policy and internal controls and reviews the scope of annual audits. All members of the Audit Committee satisfy the current independence standards promulgated by the Securities and Exchange Commission and by the NASDAQ Marketplace Rules; as such standards apply specifically to members of audit committees. The Board has determined that Mr. Moyes is an “audit committee financial expert,” as defined by the rules and regulations of the Securities and Exchange Commission. None of the members of the Audit Committee have participated in the preparation of any of our financial statements at any time during the last three fiscal years. Please also see the report of the Audit Committee set forth elsewhere in this proxy statement.

Compensation Committee. Our Compensation Committee met one time during 2008. This committee currently has two members, Dr. Gutzwiller (Chairman) and Mr. Barnhill. Our Compensation Committee administers our stock plans and reviews, approves and makes recommendations on our compensation policies, practices and procedures to ensure that legal and fiduciary responsibilities of the Board are carried out and that such policies, practices and procedures contribute to our success. The Compensation Committee is also responsible for recommending to the independent members of our Board the compensation of our Chief Executive Officer and our other officers, and conducts its decision-making process with respect to that issue without the Chief Executive Officer present. All members of the Compensation Committee qualify as “independent” under the definition promulgated by the NASDAQ Marketplace Rules. Please also see the report of the Compensation Committee set forth on page 18 of this proxy statement.

The foregoing summary of our corporate governance policies is qualified in its entirety and subject to the terms of such policies as modified by the Board from time to time. The following corporate governance documents are publicly available on the Investor Relations—Corporate Governance section of our website at <http://www.osiris.com>:

- Corporate Governance Principles
- Corporate Code of Conduct and Ethics
- Audit Committee Charter
- Compensation Committee Charter

- Code of Business Conduct and Ethics for Members of the Board of Directors and Executive Officers
- Insider Trading Policy

Compensation Committee Interlocks and Insider Participation. During 2008, our Compensation Committee consisted of two members, Dr. Gutzwiller (Chairman) and Mr. Barnhill. None of our executive officers, officers or employees is a member of the Compensation Committee, nor do any of our executive officers serve as a member of the board of directors or compensation committee (or other board committee performing equivalent functions or, in the absence of any such committee, the entire board of directors) of any entity that has one or more executive officers serving as a member of our Board or Compensation Committee.

Director Nominations

We do not have a formally constituted nominating committee. Instead, Corporate Governance Principles adopted by our Board of Directors on July 19, 2006 provide for the nomination of persons to serve on our Board upon the approval of a majority of our independent directors. The qualifications of recommended candidates will be also be reviewed and approved by the full Board. Our Board, through the adoption of the Corporate Governance Principles, has indicated its preference for this approach, which allows all of our Board members to contribute more readily to the nomination process. Stockholders may recommend director candidates for inclusion by the Board in the slate of nominees recommended to stockholders for election as described below.

The process followed by our Board and independent directors to identify and evaluate potential candidates includes requests to board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by independent directors and the Board. In considering whether to recommend any candidate for inclusion in the Board's slate of recommended director nominees, the Board and the independent directors apply the standards established for service on the Board in the Corporate Governance Principles, as follows: directors should possess the highest personal and professional ethics, integrity and values, and be committed to representing the long-term interests of the stockholders; they must also have an inquisitive and objective perspective, practical wisdom and mature judgment; the selection of director nominees should further an objective of having a board representing diverse experience at policy-making levels in business, government, education and technology, and in areas that are relevant to our global activities; directors must be willing to devote sufficient time to carrying out their duties and responsibilities effectively, and should be committed to serve on the Board for an extended period of time; and directors should offer their resignation in the event of any significant changes in their personal circumstances, including a change in their principal job responsibilities. The Board does not believe that arbitrary term limits on directors' service are appropriate, nor does it believe that directors should expect to be re-nominated annually. The Board and the independent directors do not assign specific weights to particular criteria and no particular criterion is necessarily applicable to all prospective nominees. Although we do not have a specific policy with respect to the nomination of directors by stockholders, nominations made by stockholders will be considered. We believe that it is not necessary to have a policy for director nominations by stockholders because the Board, including the independent directors, is able to effectively locate and evaluate potential candidates for nomination to the Board due to the directors' intimate knowledge of our business and the life science industry. Stockholders may communicate directly with the Board by written communication as described below.

Stockholder Communications to the Board

Generally, stockholders who have questions or concerns should contact our Investor Relations department at (443) 545-1800. However, any stockholders who wish to address questions regarding our business directly to the Board, or any individual director, may do so by sending a written communication addressed to: Corporate Secretary, 7015 Albert Einstein Drive, Columbia, Maryland 21046. All such communications will be compiled by the Corporate Secretary and submitted to the Board or the individual director so designated on a periodic basis. The Board has instructed the Corporate Secretary, prior to forwarding any correspondence, to review such correspondence and, in his discretion, not to forward items if they are deemed of a commercial, irrelevant or frivolous nature or otherwise inappropriate for consideration by the Board. These screening procedures are designed to assist the Board in reviewing and responding to stockholder communications in an appropriate manner. All communications directed to the Audit Committee in accordance with the procedures set forth in this paragraph that relate to questionable accounting or auditing matters will be forwarded promptly and directly to the Chairman (or another member) of the Audit Committee.

Compensation of Directors

All directors are reimbursed for their out-of-pocket expenses incurred in attending meetings. Each director who is not an employee is eligible to receive compensation from us for his or her services as a member of our Board or any of its standing committees. In determining compensation for directors, the decision is generally guided by three goals: compensation should fairly pay the directors for work required of directors of a company of our size and scope; compensation should align directors' interests with the long-term interests of stockholders; and the structure of the compensation should be simple, transparent and easy for stockholders to understand. Consistent with these goals, in 2008, our non-employee directors received a retainer in the form of an award of 2,500 shares of our common stock plus an additional common stock award for up to 2,500 shares based on Board participation and performance. Directors were provided the option to receive all or a portion of their award in cash or shares.

The following table summarizes compensation paid to our non-employee directors during 2008.

Director Compensation					
<u>Name</u>	<u>Fees Earned or Paid in Cash(\$)</u>	<u>Stock Awards\$(1)</u>	<u>Option Awards(\$)</u>	<u>All Other Compensation\$(2)</u>	<u>Total(\$)</u>
Gregory Barnhill	—	60,050	—	—	60,050
Peter Friedli	—	120,100	—	150,000	270,100
Felix Gutzwiller	18,015	42,035	—	—	60,050
Jay Moyes	24,020	36,030	—	—	60,050

(1) Reflects the grant of awards in February 2008 under our 2006 Omnibus Plan for 10,000 shares of common stock to Mr. Friedli and 5,000 shares of common stock to Dr. Gutzwiller and Messrs. Barnhill and Moyes for their service on our Board in 2007. The fair value of these shares at the time of grant was \$12.01 per share and the directors were provided the option of receiving their award in shares, cash or a combination of cash and shares.

(2) Reflects the fees accrued to Mr. Friedli to reimburse expenses incurred in connection with the \$17 million of financing provided by him during 2008.

Options granted during 2008 to any named executive officers serving on the Board are reported under "Executive Compensation—Option Grants in Last Fiscal Year."

Executive Officers

The following discussion sets forth certain information regarding our executive officers, with the exception of C. Randal Mills, Ph.D., whose information is set forth above under “Management—Board of Directors.”

<u>Name</u>	<u>Age</u>	<u>Positions</u>	<u>Employment Date</u>
C. Randal Mills, Ph.D.	37	President and Chief Executive Officer	July 2004
Richard W. Hunt	54	Chief Financial Officer	July 2008
Harry E. Carmitchel	58	Chief Operating Officer	September 2004
Lode Debrabandere, Ph.D.	44	Senior Vice President, Therapeutics	July 2006
Michelle LeRoux Williams, Ph.D. . . .	34	Chief Scientific Officer	October 2001
Philip R. Jacoby, Jr.	57	Vice President, Finance & Secretary	October 2005

Harry E. Carmitchel, age 58, is our Chief Operating Officer and joined us in this capacity in September 2004. Mr. Carmitchel has over 20 years of general management and operations experience in the medical field. Prior to joining us, Mr. Carmitchel was a Principal with the Pacific Consulting Group for four years, where he specialized in corporate turnarounds. Prior to this time, Mr. Carmitchel was a General Manager with McQuay International and spent eight years as President of the Medical Division for Stryker Corporation. Previously, he also served as Vice President of Operations and Vice President of Marketing for Everest and Jennings, Inc. Mr. Carmitchel earned an M.B.A. from the University of Southern California and a Bachelors degree in electrical engineering from the General Motors Institute.

Richard W. Hunt, age 54, is our Chief Financial Officer and joined us in this capacity in July 2008. Mr. Hunt has over 30 years of finance and healthcare experience. Prior to joining us, Mr. Hunt served as the Senior Vice President and Chief Financial Officer of Global Healthcare Exchange, LLC, a health care e-commerce exchange venture from July 2007 through July 2008. From June 2006 through July 2007, he served as the Chief Financial Officer of HealthExtras, Inc., a pharmacy benefit management services provider. From June 2004 through November 2005, Mr. Hunt was the Senior Vice President and CFO of NeighborCare, Inc., a long-term care pharmaceutical services provider and from July 2000 through February 2004, he served as the Senior Vice President and CFO of Global Healthcare Exchange, LLC. Mr. Hunt spent several years in progressive finance leadership positions with Baxter Healthcare/American Hospital Supply and GD Searle Pharmaceuticals.

Lode Debrabandere, age 44, is our Senior Vice President, Therapeutics and joined us in July 2006. Prior to joining us, Dr. Debrabandere served for over four years with Bristol-Myers Squibb as Vice President for Strategic Marketing for Neuroscience and Infectious Diseases. Prior to that, Dr. Debrabandere led the Marketing department of UCB Pharma Inc., focusing in the areas of allergy/respiratory and neurology and before that held various positions in the Research and Development Department at UCB Pharma, including the management of clinical development activities in the U.S., Europe, and Japan. Dr. Debrabandere earned an M.B.A., a Ph.D. in pharmaceutical sciences, toxicology, and a Pharm. D. degree in pharmaceutical sciences, all from the University of Leuven, Belgium.

Michelle LeRoux Williams, Ph.D., age 34, is our Chief Scientific Officer and joined us in October 2001. Dr. Williams previously served as Director of Orthopedics and in that role was responsible for the development of Osteocel from initial concept through market launch. Prior to joining us, Dr. Williams completed an NIH postdoctoral fellowship in tissue engineering at Columbia University, evaluating cellular constructs for the repair and regeneration of cartilage in arthritis patients. Dr. Williams earned a bachelors degree in mechanical engineering from Rice University and a Ph.D. in biomedical engineering from Duke University.

Philip R. Jacoby, Jr., age 57, is our Vice President, Finance and Corporate Secretary and joined us in a consulting capacity in April 2005 and became our employee in October 2005. Mr. Jacoby previously served as our Corporate Controller and Chief Accounting Officer. From 1999 to 2004, Mr. Jacoby served as Vice President and Corporate Controller for FTI Consulting, Inc., a global business financial and economic consulting firm. Mr. Jacoby began his career with Arthur Andersen & Co. and earned his undergraduate degree in business and public administration from the University of Maryland.

Corporate Code of Conduct and Ethics

We have adopted a Corporate Code of Conduct and Ethics that applies to all of our employees, including our chief executive officer and chief financial and accounting officers, and every member of our Board. A copy of the Corporate Code of Conduct and Ethics is publicly available on the Investors Relations—Corporate Governance section of our website at <http://www.osiris.com>. Disclosure regarding any amendments to, or waivers from, provisions of our Corporate Code of Conduct and Ethics that apply to our directors and principal executive and financial officers will be included in a Current Report on Form 8-K within four business days following the date of the amendment or waiver, unless website posting of such amendments or waivers is then permitted by the rules of The NASDAQ Stock Market, Inc.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Overview

The Compensation Committee of the Board is composed entirely of independent directors as such term is defined by the rules of The NASDAQ Stock Market, Inc. The Compensation Committee, which consists of Dr. Felix Gutzwiller (Chairman) and Mr. Gregory Barnhill, is responsible for establishing and administering our executive compensation policies. This Compensation Discussion and Analysis addresses the material elements of compensation of our named executive officers.

General Compensation Policy

The objectives of our executive compensation programs are to:

- Provide a competitive compensation package that will attract and retain superior talent and reward performance.
- Support the achievement of desired company performance.
- Align the interests of executives with the long-term interests of stockholders through award opportunities that can result in ownership of common stock, thereby encouraging the achievement of superior results over an extended period.

Elements of Executive Officer Compensation

Our executive officer compensation program is comprised of: (i) base salary, which is set on an annual basis; (ii) annual incentive bonuses, which are based on overall company performance and the achievement of management objectives; and (iii) long-term incentive compensation in the form of periodic stock option or share equity grants, with the objective of aligning the executive officers' long-term interests with those of the stockholders and encouraging the achievement of superior results over an extended period.

The Compensation Committee performs annual reviews of executive compensation to confirm the competitiveness of the overall executive compensation packages as compared with companies who compete with us to attract and retain employees.

In considering compensation of executives, one of the factors the Compensation Committee takes into account is the anticipated tax treatment of various components of compensation. We do not believe Section 162(m) of the Internal Revenue Code of 1986, as amended (the “Code”), which generally disallows a tax deduction for certain compensation in excess of \$1 million to any of our named executive officers, will have a material effect on us. The Compensation Committee has considered the requirements of Section 162(m) of the Code and its related regulations. It is the Compensation Committee’s present policy to consider measures to preserve the full deductibility of executive compensation, to the extent consistent with its other compensation objectives.

Management’s Role in Determining Executive Compensation

The Compensation Committee approves the final determination of compensation for all the executive officers. Our Chief Executive Officer provides our Compensation Committee with recommendations regarding compensation for the other named executive officers. Our Compensation Committee reviews such recommendations and approves annual compensation for named executive officers, consisting of base salary and any annual cash incentive (discussed below), on an annual basis. Our Compensation Committee may request additional information and analysis and ultimately determines in its discretion, based on its own analysis and judgment and the recommendations of the Chief Executive Officer, whether to approve any recommended changes in compensation.

Base Salary

The Compensation Committee reviews base salary levels for our executive officers on an annual basis. Base salaries are set competitively relative to companies in the biotechnology industry and other comparable companies. In determining salaries, the Compensation Committee also takes into consideration individual experience and performance, and seeks to compare the salaries paid by companies similar in size and stage of development. Within this comparison group, we seek to make comparisons to executives at a comparable level of experience, who have a comparable level of responsibility and expected level of contribution to their company. In setting base salaries, the Compensation Committee also takes into account the intense level of competition among biotechnology companies to attract talented personnel.

Our goal is to pay each named executive officer a base salary sufficient to remain competitive in the market. On February 23, 2009, the Compensation Committee of the Board approved the 2009 annual base salaries for each of the named executive officers, effective February 1, 2009 as follows:

	Name and Position(s)	2009 Base Salary	2008 Base Salary
C. Randal Mills	President & Chief Executive Officer	\$450,000	\$425,000
Harry E. Carmitchel	Chief Operating Officer(1)	180,000	180,000
Richard W. Hunt	Chief Financial Officer(2)	270,000	270,000
Lode Debrabandere	Senior Vice President, Therapeutics	262,000	240,000
Michelle LeRoux Williams	Chief Scientific Officer	240,000	225,000
Philip R. Jacoby, Jr.	Vice President, Finance & Secretary	170,000	155,000

- (1) Reflective of Mr. Carmitchel’s less than full-time employment status, as described in his employment agreement, his base salary represents 75% of a full-time base salary of \$240,000.
- (2) Mr. Hunt’s employment commenced on July 23, 2008.

The 2009 base salaries for Dr. Mills, Messrs. Carmitchel, Hunt and Jacoby, and Drs. Debrabandere and Williams are consistent with the range of salaries received by their respective counterparts in companies in the biotechnology industry and other comparable companies.

Annual Incentive Bonuses

Bonuses for executive officers are discretionary and are awarded on an annual basis by the Compensation Committee after fiscal year end. Bonus amounts are determined based upon overall company performance, together with a subjective review of the individual executive officer's performance over the past fiscal year and achievement of management objectives or goals related to the executive officer's areas of responsibility. The Compensation Committee believes Dr. Mills has managed Osiris well in a challenging business climate and has continued to move it towards its long-term objectives. Consistent with this assessment, Dr. Mills was awarded a bonus of \$265,000 for the year ending December 31, 2008. The range of bonuses paid for our named executive officers on the basis of 2008 performance was \$30,000 to \$265,000.

Exercise of Discretion in Executive Compensation Decisions

Subject to the terms of any binding agreements that provide otherwise, the Compensation Committee has complete discretion to withhold payment pursuant to any of our incentive compensation plans irrespective of whether we or our executive officers have successfully met the goals set under these plans. The Compensation Committee also typically has the authority to grant payment under any of the plans despite the non-attainment by us or our executive officers of the pre-established goals. For 2008, the Compensation Committee did not exercise such discretion in the payment of awards to our executive officers.

Long-term Incentive Compensation

Long-term incentive compensation, including stock options, allows the executive officers to share in any appreciation in the value of our common stock. The Compensation Committee believes that stock option participation aligns executive officers' interests with those of the stockholders. The amounts of the awards are designed to reward past performance and create incentives to meet long-term objectives. Awards are made at a level calculated to be competitive within the biotechnology industry, as well as a broader group of companies of comparable size and complexity. In determining the amount of each grant, the Compensation Committee takes into account the number of shares held by the executive prior to the grant.

- We granted stock options to Dr. Mills to purchase 100,000 shares at the weighted average exercise price of \$12.01 in 2008, 100,000 shares at a weighted average exercise price of \$23.62 in 2007 and options to purchase 100,000 shares at a weighted average price of \$0.40 in 2006.
- We granted stock options to Mr. Carmitchel to purchase 20,000 shares at a weighted average exercise price of \$12.01 in 2008, 25,000 shares at a weighted average exercise price of \$23.62 in 2007 and 25,000 shares at a weighted average exercise price of \$0.40 in 2006.
- We granted stock options to Mr. Hunt to purchase 120,000 shares at a weighted average exercise price of \$15.05 in 2008 upon commencement of his employment with the Company.
- We granted stock options to Dr. Debrabandere to purchase 20,000 shares at a weighted average exercise price of \$12.01 in 2008, 15,000 shares at a weighted average exercise price of \$23.62 in 2007 and 75,000 shares at a weighted average exercise price of \$6.84 in 2006.
- We granted stock options to Dr. Williams to purchase 20,000 shares at a weighted average exercise price of \$12.01 in 2008 and 20,000 shares at a weighted average exercise price of \$14.19 in 2007 upon her appointment as an executive officer.

- We granted stock options to Mr. Jacoby to purchase 10,000 shares at a weighted average exercise price of \$17.10 in 2008 upon his appointment as an executive officer.

These option awards are designed to align the interests of the named executive officers with those of Osiris' stockholders with respect to short-term operating results and long-term increases in the price of Osiris' stock, and are consistent with the goals of our long-term incentive compensation program as a whole.

Prior to our initial public offering, we granted stock options at an exercise price equivalent to the fair market value as determined by our Board. For financial reporting purposes and in connection with preparing for our initial public offering, we retrospectively analyzed the fair market value of our common stock as of the dates of the issuance of equity instruments. Pursuant to this retrospective analysis, we determined that certain of the stock options granted prior to our initial public offering were granted at exercise prices below the fair market value on the date of grant.

Executive Benefits and Perquisites

Our executive compensation program remains relatively free of executive benefits and perquisites. Generally, benefits and perquisites available to executive officers are available to all employees on similar terms and include health and welfare benefits, paid time-off, etc.

We do not provide our executive officers separate dining or other facilities, company cars, club dues, or other similar perquisites. We provide air travel for executive officers for business purposes only. Our health care, insurance, 401(k) plan, and other welfare and employee-benefit programs are the same for all eligible employees, including the named executive officers. In certain situations, we provide our named executive officers with expense reimbursement relating to relocation.

We provide the above-described executive benefits and perquisites in order to attract and retain our named executive officers by offering compensation opportunities that are competitive with those offered by similarly situated public companies. However, such executive benefits and perquisites represent a relatively small portion of their total compensation. The value of benefits and perquisites provided are presented in the "All Other Compensation" column (and described in the related footnotes) of the Summary Compensation Table.

Retirement/Post-Employment Benefits.

The Company does not provide any retirement programs, pension benefits or deferred compensation plans to its named executive officers other than its 401(k) plan, which is available to all employees. The Company has not made any contributions to the 401(k) plan since its inception.

Compensation Committee Report

The Compensation Committee has reviewed and discussed the foregoing Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and, based on such review and discussions, the Compensation Committee recommended to our Board that the Compensation Discussion and Analysis be included in this proxy statement.

Compensation Committee Members:

Felix Gutzwiller, M.D.,
Dr. P.H., Chairman
Gregory Barnhill

This Compensation Committee Report shall not be deemed incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933 or under the Securities Exchange Act of 1934, except to the extent that Osiris specifically incorporates this information by reference, and shall not otherwise be deemed filed under the Securities Act of 1933 and the Securities Exchange Act of 1934, and shall not be deemed soliciting material.

Summary Compensation Table

The following table shows the total compensation paid or accrued during 2008 and 2007 to our Chief Executive Officer, our Chief Financial Officer and each of our four next most highly compensated executive officers who earned more than \$100,000 during 2008.

Name and Principal Position	Year	Salary (\$)	Bonus \$(1)	Stock Awards \$(2)	Option Awards \$(2)	Non-Equity Incentive Plan Compensation (\$)	Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation \$(3)	Total (\$)
C. Randal Mills President and Chief Executive Officer	2008	423,829	265,000	—	527,088	—	—	—	1,215,917
	2007	394,167	90,000	—	317,840	—	—	—	802,007
Harry E. Carmitchel Chief Operating Officer	2008	180,260	30,000	—	118,420	—	—	—	328,680
	2007	173,542	60,000	—	75,487	—	—	—	309,029
Richard W. Hunt Chief Financial Officer(3)	2008	120,218	35,000	—	115,246	—	—	—	270,464
	2007	—	—	—	—	—	—	—	—
Lode Debrabandere Senior Vice President, Therapeutics	2008	239,907	75,000	—	73,757	—	—	—	388,664
	2007	229,583	40,000	—	167,408	—	—	—	436,991
Michelle LeRoux Williams Chief Scientific Officer	2008	220,005	75,000	—	75,014	—	—	—	370,019
	2007	146,667	60,000	—	32,112	—	—	—	238,779
Philip R. Jacoby, Jr. Vice President, Finance & Secretary	2008	153,374	30,000	—	20,732	—	—	—	204,106
	2007	131,792	10,000	—	18,332	—	—	—	160,124

- (1) Represents bonus payments that were paid in 2009 on account of named executive officer performance in 2008, and bonus payments made in 2008 on account of named executive officer performance in 2007, as applicable.
- (2) These amounts reflect the non-cash amounts recognized for financial statement purposes for 2008 and 2007 in accordance with FAS Statement 123(R) of stock based awards pursuant to our stockholder approved equity plans. Assumptions used in the calculations of these amounts are included in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Note 1—Description of Business and Significant Accounting Policies” and “Note 8—Share-Based Compensation” to our Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2008 and filed with the SEC on March 16, 2009, or Annual Report on Form 10-K for the year ended December 31, 2007 and filed with the SEC on March 17, 2008, as applicable.
- (3) Mr. Hunt’s employment commenced on July 23, 2008.

Grants of Plan-Based Awards

The following table provides information on equity awards granted in 2008 to each of our named executive officers:

<u>Name</u>	<u>Grant Date</u>	<u>All Other Option Awards: Number of Securities Underlying Options (#)</u>	<u>Exercise or Base Price of Option Awards (\$/Sh)</u>	<u>Grant Date Fair Value of Stock and Option Awards</u>
C. Randal Mills	2/4/2008	100,000(1)	\$12.01	787,000
Harry E. Carmitchel	2/4/2008	20,000(1)	12.01	157,400
Richard W. Hunt(2)	7/23/2008	120,000(1)	15.05	1,164,590
Lode Debrabandere	2/4/2008	15,000(1)	12.01	118,050
Michelle LeRoux Williams	2/4/2008	15,000(1)	12.01	157,400
Philip R. Jacoby, Jr.	10/2/2008	10,000(1)	17.10	107,136

(1) Represents stock options awarded by the Board of Directors, which vest in equal installments on the first, second, third and fourth anniversary of the award date.

(2) Mr. Hunt's employment commenced on July 23, 2008.

Equity Compensation Plan Information

We have two equity compensation plans: (1) the Amended and Restated 1994 Stock Option and Incentive Plan, as amended, and (2) the 2006 Stock Option and Incentive Plan. A total of 1,762,870 shares of common stock are currently reserved for issuance pursuant to the plans. Currently, awards under the stock option and incentive plans consist of qualified and non-qualified stock options and restricted shares of common stock. Our stockholders have approved both the stock option and incentive plans. As of December 31, 2008:

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights</u>	<u>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (\$/Sh)</u>	<u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans</u>
Equity compensation plans approved by security holders	1,211,177	10.61	567,750
Equity compensation plans not approved by security holders(1)	1,000,000	11.00	—

(1) Warrant issued to purchase shares of Common Stock, exercisable at any time at the option of the holder, prior to expiration in May 2011.

Outstanding Equity Awards at Fiscal Year-End

	Option Awards			
	Number of Securities Underlying Unexercised Options (#)		Option Exercise Price (\$)	Option Expiration Date
	Exercisable	Unexercisable		
C. Randal Mills	150,000	—	0.40	5/14/2014
	100,000	—	0.40	1/10/2016
	25,000	75,000	23.62	2/4/2017
	—	100,000	12.01	2/5/2018
Harry E. Carmitchel	6,250	18,750	23.62	2/4/2017
	—	20,000	12.01	2/5/2018
Richard W. Hunt	—	120,000	15.05	7/23/2018
Lode Debrabandere	37,500	37,500	6.84	7/30/2016
	3,750	11,250	23.62	2/4/2017
	—	15,000	12.01	2/5/2018
Michelle LeRoux Williams	250	—	0.40	10/1/2011
	270	—	0.40	4/1/2012
	5,750	—	0.40	11/21/2014
	5,625	1,875	0.40	12/1/2015
	5,000	15,000	14.19	6/30/2017
	—	20,000	12.01	2/5/2018
Philip R. Jacoby, Jr.	—	2,500	0.40	10/9/2015
	625	625	0.40	12/1/2015
	750	2,250	23.62	2/4/2017
	750	2,250	12.50	7/25/2017
	—	10,000	17.10	10/2/2018

Option Exercises and Stock Vested

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
C. Randal Mills	—	—	—	—
Harry E. Carmitchel	—	—	—	—
Richard W. Hunt	—	—	—	—
Lode Debrabandere	—	—	—	—
Michelle LeRoux Williams	—	—	—	—
Philip R. Jacoby, Jr.	3,125	45,594	—	—

Employment Contracts, Termination of Employment and Change in Control Arrangements

Except in the case of Dr. Mills and Messrs. Carmitchel and Hunt and Dr. Debrabandere, as described below, none of our employees is employed for a specified term, and each employee's employment with us is subject to termination at any time by either party for any reason, with or without cause. We have entered into employment agreements with Dr. Mills and Messrs. Carmitchel and Hunt and Dr. Debrabandere.

Under Dr. Mills' employment agreement, dated as of May 15, 2004, he served as our Chief Executive Officer for an initial three-year term. Thereafter, the agreement provides for automatic renewal for successive one-year renewal terms, unless either party provides notice of termination at least ninety days prior to the commencement of a renewal term. We may otherwise terminate Dr. Mills' employment (i) if he is unable to perform his duties due to some incapacity for three or more consecutive months or for four or more non-consecutive months, (ii) if he fails to perform his duties and such failure is not cured within thirty days after specific written notice by the Board, or (iii) for cause. Dr. Mills may terminate his employment for good reason. If we terminate Dr. Mills for failure to perform his duties, in addition to paying any amount otherwise owed, we must pay him a lump sum in an amount equal to one half of his annual base salary (based on his 2009 annual base salary of \$450,000, this amount equals \$225,000) and provide six months of medical, life and disability benefits (having an extended value of approximately \$9,000). If we terminate Dr. Mills without cause or if he terminates his employment for good reason, in addition to paying any amount otherwise owed, we must pay him a lump sum in an amount equal to one full year of base salary (based on his 2009 annual base salary of \$450,000, this amount equals \$450,000) and provide one full year of medical, life, and disability benefits (having an estimated value of approximately \$18,000).

Under Mr. Carmitchel's employment agreement, dated as of September 1, 2004, he served as our Chief Operating Officer for an initial three-year term. Thereafter, the agreement provides for automatic renewal for successive one-year renewal terms, unless either party provides notice of termination at least ninety days prior to the commencement of a renewal term. We may otherwise terminate Mr. Carmitchel's employment (i) if he fails to perform his duties and such failure is not cured within thirty days after specific written notice by the Board or (ii) for cause. Mr. Carmitchel may terminate his employment for good reason. If we terminate Mr. Carmitchel for failure to perform his duties or without cause, or if Mr. Carmitchel terminates his employment for good reason, in addition to paying any amount otherwise owed, we must pay Mr. Carmitchel a lump sum in an amount equal to one half of his annual base salary (based on his 2009 annual base salary of \$180,000, this amount equals \$90,000) and provide six months of medical, life and disability benefits (having an estimated value of approximately \$15,000). Pursuant to his employment agreement, Mr. Carmitchel's employment relationship is less than full-time.

Under Mr. Hunt's employment agreement, dated as of July 23, 2008, he serves as our Chief Financial Officer for an initial three-year term. Thereafter, the agreement provides for automatic renewal for successive one-year renewal terms, unless either party provides notice of termination at least ninety days prior to the commencement of a renewal term. We may otherwise terminate Mr. Hunt's employment (i) if he fails to perform his duties and such failure is not cured within thirty days after specific written notice by the Board or (ii) for cause. Mr. Hunt may terminate his employment for good reason. If we terminate Mr. Hunt for failure to perform his duties or without cause, or if Mr. Hunt terminates his employment for good reason, in addition to paying any amount otherwise owed, we must pay Mr. Hunt a lump sum in an amount equal to one half of his annual base salary (based on his 2009 annual base salary of \$270,000, this amount equals \$135,000) and provide six months of medical, life and disability benefits (having an estimated value of approximately \$15,000).

Under Dr. Debrabandere's employment agreement, dated as of July 31, 2006, he serves as our Senior Vice President, Therapeutics for an initial three-year term. Thereafter, the agreement provides

for automatic renewal for successive one-year renewal terms, unless either party provides notice of termination at least ninety days prior to the commencement of a renewal term. We may otherwise terminate Dr. Debrabandere's employment (i) if he is unable to perform his duties due to some incapacity for three or more consecutive months or four or more non-consecutive months, (ii) if he fails to perform his duties and such failure is not cured within thirty days after specific written notice by the Board or (iii) for cause. Dr. Debrabandere may terminate his employment for good reason. If we terminate Dr. Debrabandere for inability to perform his duties or for cause, or if Dr. Debrabandere terminates his employment for other than good reason, we have no obligations to Dr. Debrabandere other than the payment of amounts otherwise owed at the time of termination. If we terminate Dr. Debrabandere for failure to perform his duties, in addition to paying any amount otherwise owed, we must pay him a lump sum in an amount equal to three months of his annual base salary (based on his 2009 annual base salary of \$262,000, this amount equals \$65,500) and provide six months of medical, life and disability benefits (having an estimated value of approximately \$10,000). If we terminate Dr. Debrabandere without cause or if he terminates his employment for good reason, in addition to paying any amount otherwise owed, we must pay him a lump sum in an amount equal to six months of base salary (based on his 2009 annual base salary of \$262,000, this amount equals \$131,000) and provide six months of medical, life, and disability benefits (having an estimated value of approximately \$20,000).

For purposes of the employment agreements with Dr. Mills and Messrs. Carmitchel and Hunt and Dr. Debrabandere, "cause" is defined to include (i) the commission of a felony or a crime of moral turpitude or any other act or omission involving dishonesty or fraud with respect to us or any of our subsidiaries, customers, or suppliers, (ii) conduct tending to bring Osiris or any subsidiary into substantial public disgrace or disrepute, (iii) gross negligence or willful misconduct with respect to us or any subsidiary, or (iv) any breach of a material section of the agreement.

For purposes of the employment agreements with Dr. Mills and Messrs. Carmitchel and Hunt and Dr. Debrabandere, "good reason" means (i) our failure to perform or observe any material term or provision of the agreement and our continued failure to cure such default within thirty days after written demand for performance from the executive specifically describing the alleged default, (ii) a material reduction in the scope of the executive's responsibilities and duties, or (iii) absent a written agreement between us and the executive, a material reduction in the executive's base pay or incentive compensation.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee of the Board of Directors of Osiris Therapeutics, Inc. has three members, Mr. Moyes (Chairman), Dr. Gutzwiller and Mr. Barnhill. Each of the members of the Audit Committee are independent directors who meet the independence and experience requirements of The NASDAQ Stock Market, Inc. and the independence requirements of the Securities and Exchange Commission. The Audit Committee has furnished the following report:

The Audit Committee assists the Board in overseeing and monitoring the integrity of Osiris' financial reporting process, compliance with legal and regulatory requirements and the quality of internal and external audit processes. The role and responsibilities of the Audit Committee are set forth in a written charter adopted by the Board. This committee reviews and reassesses the charter annually and recommends any changes to the Board for approval. The Audit Committee is responsible for overseeing Osiris' overall financial reporting process, and for the appointment, compensation, retention, and oversight of the work of Osiris' independent registered public accounting firm. In fulfilling its responsibilities for the financial statements for 2008, the Audit Committee took the following actions:

- Reviewed and discussed the audited financial statements for 2008 with management and Stegman & Company, Osiris' independent registered public accounting firm for 2008.
- Discussed with Stegman & Company the matters required to be discussed by the Statement on Auditing Standards No. 61, as amended relating to the conduct of the audit.
- Received written disclosures and the letter from Stegman & Company regarding its independence as required by Independence Standards Board Standard No. 1. The Audit Committee further discussed with Stegman & Company its independence. The Audit Committee also considered the status of taxation matters and other areas of oversight relating to the financial reporting and audit process that the committee determined appropriate.
- Based on the Audit Committee's review of the audited financial statements and discussions with management and Stegman & Company, the Audit Committee recommended to the Board that the audited financial statements be included in the Annual Report on Form 10-K for 2008 for filing with the Securities and Exchange Commission.
- Retained Grant Thornton LLP as Osiris' independent registered public accounting firm for 2009.

THE AUDIT COMMITTEE

Jay Moyes, Chairman
Felix Gutzwiller, M.D., Dr. P.H.
Gregory Barnhill

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Our records reflect that all reports which were required to be filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, as amended, were filed on a timely basis. An Annual Statement of Beneficial Ownership on Form 5 is not required to be filed if there are no previously unreported transactions or holdings to report. Nevertheless, we are required to disclose the names of directors, officers and 10% stockholders who did not file a Form 5 unless we have obtained a written statement that no filing is required or if we otherwise know that no Form 5 is required. For 2008, we received either a written statement from our directors, officers and 10% stockholders or know from other means that no Form 5s were required to be filed.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

As required by our Corporate Governance Principles, our Audit Committee reviews and approves in advance all related-party transactions. Our policy with respect to related party transactions is incorporated within our Audit Committee Charter, a copy of which is available on our website at <http://www.osiris.com>. This policy sets forth the review and approval requirements for transactions in which we will be a participant and in which any of our directors, director nominees, executive officers, other employees or greater than 5% beneficial owners of our common stock, or any immediate family member or any affiliated entity of such persons, has a direct or indirect interest. Pursuant to this policy, any proposed transaction that would require disclosure under the related party transaction disclosure requirements of the United States Securities and Exchange Commission must be submitted to the Audit Committee for consideration. No member of the Audit Committee may participate in any consideration or approval of any related person transaction with respect to which such member or any of such member's immediate family members is the related person.

The Audit Committee may approve only those related party transactions that are in, or are not inconsistent with, the best interests of Osiris and its stockholders, as the Audit Committee determines in good faith. In making such a determination, the Audit Committee is required to consider all of the relevant facts and circumstances relating to the transaction including, but not limited to, the following:

- the benefits to us;
- if the transaction involves a director, a member of the director's immediate family or entity affiliated with the director, the impact on the director's independence;
- the availability of other sources for comparable products or services;
- the terms of the transaction; and
- the terms available to unrelated third parties.

Peter Friedli, the Chairman of our Board of Directors, or entities with which he is affiliated, have been responsible for procuring since 1993, an aggregate of approximately \$270 million in debt and equity financing for us and our predecessor company. Mr. Friedli is the beneficial owner of approximately 45% of our common stock as of December 31, 2008. Of the shares beneficially owned by Mr. Friedli at December 31, 2008, 35,000 shares were received by him as Board compensation since 1996, 12,500 shares and warrants for 1,000,000 shares were granted in recognition of his fundraising efforts, as discussed below, and the remaining shares were acquired through investment or through purchase from third parties.

Consulting Agreement. Beginning in 1995, we and our predecessor company were party to a Consulting Agreement, originally with Friedli Corporate Finance AG, and subsequently Friedli Corporate Finance, Inc., or FCF, for the provision of business and advisory services to us. Mr. Friedli is the sole owner of FCF. Under this agreement, FCF provided general business, financial and investment advice to us, and served as a liaison between us and FCF clients who have invested in us, many of

which are located in Switzerland. The Consulting Agreement between us and FCF was terminated upon the closing of our initial public offering in August 2006. The base compensation paid by us under this agreement was \$47,000 in 2006. In addition, pursuant to this Consulting Agreement, we paid \$350,000 in 2006, to or as directed by FCF.

Private Placement Financings During the Three Years Ended December 31, 2008. Separate from the Consulting Agreement, FCF served as our agent in Europe in connection with:

- the issuance and sale in 2006 of \$20 million of our Convertible Notes to non-U.S. investors, which were converted into an aggregate of 1,553,361 shares of our common stock in December 2007 and January 2008, at prices above the NASDAQ closing price on the dates of conversion. Mr. Friedli and an entity affiliated with Mr. Friedli purchased \$8.5 million of these Notes, and the Notes acquired by the affiliated entity were subsequently purchased by Mr. Friedli in a separate transaction between those parties;
- the issuance and sale in June 2007 of 1,757,469 shares of our common stock in a private placement to non-U.S. investors at a purchase price of \$11.38 per share, which represented the NASDAQ closing price on the date of the transaction, representing gross proceeds of \$20.0 million. Mr. Friedli purchased 1,230,299 shares of our common stock issued in this private placement, representing gross proceeds of \$14 million;
- the issuance and sale in December 2007 of 950,000 shares of our common stock in a private placement to non-U.S. investors at a purchase price of \$12.37 per share, which represented the NASDAQ closing price on the date of the transaction, representing gross proceeds of \$11.8 million. Mr. Friedli purchased 100,000 shares of our common stock issued in this private placement, representing aggregate proceeds of \$1.2 million;
- the issuance and sale during 2008 of \$10.5 million of Convertible Notes to non-U.S. investors bearing interest at between 2% and 4%, which were converted into an aggregate of 851,914 shares of our common stock in November 2008, at prices equal to the NASDAQ closing price on the dates the definitive agreements were entered into. Mr. Friedli and an entity affiliated with Mr. Friedli purchased \$5 million of these Notes which were converted into an aggregate of 395,104 shares of our common stock. Prior to conversion of these Notes, an aggregate of \$147 in interest was paid to the holders of the Notes, including \$32,000 in interest paid to Mr. Friedli; and
- the issuance and sale during 2008 of \$6.5 million of Short-term Promissory Notes to non-U.S. investors bearing interest at 10% semi-annually, which were redeemed during November 2008. Mr. Friedli purchase \$4 million of these Notes. Prior to redemption of these Notes, an aggregate of \$434,000 in interest was paid to the holders of the Notes, including \$326,000 in interest paid to Mr. Friedli.

In October 2007, we also obtained a \$30.0 million financing commitment from FCF. This financing commitment was for a twelve month term and provided for financing through the issuance by us of common stock at a price determined as the basis of market value, or the issuance by us of three-year promissory notes bearing interest at LIBOR plus 4%. We did not incur any fees in connection with the establishment of this financing commitment, nor did we draw any funds on this financing commitment, which has since expired.

Our Board of Directors, including all of our independent directors, but with Mr. Friedli abstaining, together with the audit committee for all transactions occurring following our initial public offering, unanimously approved each of these financings, including the participation of Mr. Friedli and entities affiliated with Mr. Friedli and the arrangements with FCF.

We did not pay any fees for any of the financings arranged in 2007 through Mr. Friedli or entities with which he is affiliated. In 2008, we accrued \$150,000 for fees payable to Mr. Friedli or entities with which he is affiliated in connection with the \$17 million of financing provided by him during 2008.

Prior to 2007, we paid referral fees and costs of \$3.4 million to accounts designated by Mr. Friedli, including accounts of unrelated third parties. In addition, we paid \$600,000 to FCF in connection with the issuance of the \$20.0 million in Convertible Notes in 2006.

To facilitate borrowings and other financings prior to our initial public offering, and for commitments of consideration in respect of any additional financing if needed, in 2005 we issued warrants for an aggregate of 1,250,000 shares at an exercise price of \$0.40 per share. Mr. Friedli subsequently arranged for the acquisition of those warrants and they have since been cancelled. In recognition of his efforts in procuring financing over the years and the cancellation of all of these warrants, in 2006, prior to our initial public offering, we issued a new warrant to Mr. Friedli, exercisable for up to 1,000,000 shares of our common stock at \$11.00 per share, the price for which shares were sold in the initial public offering. This warrant expires in May 2011.

Lockup Agreement. On October 30, 2006, we entered into a Lockup Agreement with Mr. Friedli, Venturetec, Inc. and U.S. Venture 05, Inc. Pursuant to the Lockup Agreement, Mr. Friedli and such entities initially agreed with us, subject to limited exceptions, not to transfer our securities held by them without our approval, until January 30, 2008. The Lockup Agreement was amended in September 2007, by an Amendment to Lockup Agreement, pursuant to which Mr. Friedli and Venturetec, Inc. agreed to extend the term of the Lockup Agreement as applicable to them, until January 30, 2009. The term of the Amended Lockup Agreement, as amended, expired on January 30, 2009.

AVAILABLE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and, in accordance therewith, file reports, proxy statements and other information with the U.S. Securities and Exchange Commission. Reports, proxy statements and other information filed by us may be inspected without charge and copies obtained upon payment of prescribed fees from the Public Reference Section of the U.S. Securities and Exchange Commission at 100 F Street, NE, Washington, D.C. 20549, or by way of the U.S. Securities and Exchange Commission's website, <http://www.sec.gov>.

We will provide without charge to each person to whom a copy of the proxy statement is delivered, upon the written or oral request of any such persons, additional copies of our Annual Report on Form 10-K for the period ended December 31, 2008. Requests for such copies should be addressed to:

Osiris Therapeutics, Inc., 7015 Albert Einstein Drive, Columbia, Maryland 21046, Attn: Investor Relations, Telephone (443) 545-1800.

OTHER MATTERS

The Board knows of no other business which will be presented at the Annual Meeting. However, if any other business is properly brought before the Annual Meeting or any postponement or adjournment thereof, which may properly be acted upon, the proxies solicited hereby will be voted on such matter in accordance with the discretion of the proxy holders named therein.

WHETHER OR NOT YOU INTEND TO BE PRESENT AT THE MEETING, YOU ARE URGED TO FILL OUT, SIGN, DATE AND RETURN THE ENCLOSED PROXY AT YOUR EARLIEST CONVENIENCE.

By order of the Board of Directors:

A handwritten signature in black ink, appearing to read "Philip R. Jacoby, Jr.", written in a cursive style.

Philip R. Jacoby, Jr.
Corporate Secretary

Columbia, Maryland
April 24, 2009