## **UNITED STATES**

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

## **SCHEDULE 14A**

## (Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT SCHEDULE 14A INFORMATION

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

Filed by the Registrant

Filed by a Party other than the Registrant  $\Box$ 

Check the appropriate box:

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

# **ZIOPHARM Oncology, Inc.**

## (Name of Registrant as Specified in Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

☑ No fee required.

- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
  - (1) Title of each class of securities to which transaction applies:
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(4) Proposed maximum aggregate value of transaction:

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

(1) Amount previously paid:

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

(3) Filing Party:

(4) Date Filed:



## ZIOPHARM Oncology, Inc.

One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor Boston, Massachusetts 02129

## NOTICE OF ANNUAL MEETING OF STOCKHOLDERS To be Held on June 14, 2017

To the stockholders of ZIOPHARM Oncology, Inc.:

Please take notice that the 2017 annual meeting of stockholders of ZIOPHARM Oncology, Inc. will be held, pursuant to due call by the board of directors, at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129, on Wednesday, June 14, 2017, at 10:00 a.m. Eastern time, or at any adjournment or adjournments thereof, for the purpose of considering and taking appropriate action with respect to the following:

- 1. To elect six directors;
- 2. To ratify the appointment of RSM US LLP as our independent registered public accounting firm for 2017;
- 3. To approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement;
- 4. To indicate, on an advisory basis, the preferred frequency of shareholder advisory votes on the compensation of our named executive officers; and
- 5. To transact any other business as may properly come before the meeting or any adjournments thereof.

Pursuant to action of the board of directors, stockholders of record on April 18, 2017 will be entitled to vote at the annual meeting or any adjournments thereof. Your attention is directed to the proxy statement accompanying this notice for a more complete statement of the matters to be considered at the meeting. A copy of ZIOPHARM Oncology, Inc.'s Annual Report for the fiscal year ended December 31, 2016 is also available on our corporate website and at http://www.proxyvote.com.

Whether or not you expect to attend the annual meeting, please vote by proxy over the telephone or the internet as instructed in these materials, as promptly as possible in order to ensure your representation at the meeting. Even if you vote by proxy, you may still vote in person if you attend the meeting. If your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from the record holder.

By Order of the Board of Directors,

Caesar J. Belbel Chief Operating Officer, Executive Vice President, Chief Legal Officer and Secretary

Boston, Massachusetts April 28, 2017

### IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR OUR ANNUAL MEETING OF STOCKHOLDERS TO BE HELD AT 10:00 A.M. EASTERN TIME ON JUNE 14, 2017 AT OUR PRINCIPAL EXECUTIVE OFFICES AT ONE FIRST AVENUE, PARRIS BUILDING 34, NAVY YARD PLAZA, THIRD FLOOR, BOSTON, MASSACHUSETTS 02129: The proxy statement for the annual meeting and our 2016 Annual Report are available at http:// www.proxyvote.com

This notice is not a form for voting and presents only an overview of the proxy materials, which contain important information and are available online or by mail. We encourage you to access and review the proxy materials before voting by accessing the internet website above, or by submitting a written request for printed copies of the proxy statement and our 2016 Annual Report to ZIOPHARM Oncology, Inc., One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129, Attention: Secretary, or you may contact our Secretary at (617) 259-1970 prior to May 31, 2017.

## PROXY STATEMENT FOR 2017 ANNUAL MEETING OF STOCKHOLDERS

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### QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

### Why did I receive a notice regarding the availability of proxy materials through the internet?

Pursuant to rules adopted by the Securities and Exchange Commission (the "SEC"), we have elected to provide access to our proxy materials through the internet. Accordingly, we have sent you a Notice of Internet Availability of Proxy Materials (the "Notice") because the board of directors of ZIOPHARM Oncology, Inc. (sometimes referred to as "we," "us," "our" or the "Company") is soliciting your proxy to vote at the 2017 Annual Meeting of Stockholders, or the annual meeting, including at any adjournments or postponements thereof. All stockholders will have the ability to access the proxy materials through the website referred to in the Notice or to request a printed copy of the proxy materials. Instructions on how to access the proxy materials through the internet or to request a printed copy may be found in the Notice.

We intend to mail the Notice on or about April 28, 2017 to all stockholders of record entitled to vote at the annual meeting.

#### How do I attend the annual meeting?

The annual meeting will be held on Wednesday, June 14, 2017, at 10:00 a.m. Eastern time, at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129. Directions to our principal executive offices are available at our website at *http://www.ziopharm.com*. Our website and the information contained therein are not incorporated into this proxy statement. Information on how to vote in person at the annual meeting is discussed below.

#### Who can vote at the annual meeting?

Only stockholders of record at the close of business on April 18, 2017, which we refer to as the Record Date, will be entitled to vote at the annual meeting. On the Record Date, there were 132,387,661 shares of common stock outstanding and entitled to vote.

Stockholder of Record — Shares Registered in Your Name: If on April 18, 2017 your shares were registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, LLC, then you are a stockholder of record. As a stockholder of record, you may vote in person at the annual meeting or vote by proxy. Whether or not you plan to attend the annual meeting, we urge you to vote by proxy over the telephone, through the internet or using a proxy card that you may request as instructed below, to ensure your vote is counted.

Beneficial Owner — Shares Registered in the Name of a Broker or Bank: If on April 18, 2017 your shares were not registered in your name, but instead are held in an account at a brokerage firm, bank, dealer or similar organization, then you are the beneficial owner of shares held in "street name" and the Notice is being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the annual meeting. Since you are not the stockholder of record, however, you may not vote your shares in person at the annual meeting unless you request and obtain a valid proxy from your broker or other agent.

#### What am I voting on?

There are four matters scheduled for a vote:

- 1. Election of six directors;
- 2. Ratification of the appointment of RSM US LLP as our independent registered public accounting firm for 2017;

- 3. Approval, on an advisory basis, of the compensation of our named executive officers as disclosed in this proxy statement; and
- 4. Advisory indication of the preferred frequency of shareholder advisory votes on the compensation of our named executive officers.

#### What if another matter is properly brought before the annual meeting?

The board of directors knows of no other matters that will be presented for consideration at the annual meeting. If any other matters are properly brought before the annual meeting, it is the intention of the persons named in the accompanying proxy to vote on those matters in accordance with their best judgment.

#### How do I vote?

With respect to Proposal No. 1, you may vote "For" all the nominees to the board of directors or you may "Withhold" your vote for any of the nominees you specify. With respect to Proposal No. 2 and Proposal No. 3, you may vote "For" or "Against," or you may abstain from voting. With respect to Proposal No. 4, you may vote for any one of the following: one year, two years or three years, or you may abstain from voting on that matter.

We provide internet proxy voting to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. Please be aware, however, that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

Stockholder of Record — Shares Registered in Your Name: If you are a stockholder of record, you may vote in person at the annual meeting, vote by proxy over the telephone, vote by proxy through the internet, or vote by proxy using a proxy card that you may request. Whether or not you plan to attend the meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the meeting and vote in person even if you have already voted by proxy.

- To vote in person, come to the annual meeting and we will give you a ballot when you arrive.
- To vote using a proxy card, you may request a proxy card by following the instructions in the Notice. Once you receive the proxy card, simply complete, sign and date the proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the annual meeting, we will vote your shares as you direct.
- To vote over the telephone from a location in the United States, dial toll-free 1-800-6903, using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number from the Notice. Your vote must be received by 11:59 p.m. Eastern time, on June 13, 2017 to be counted.
- To vote through the internet, go to *www.proxyvote.com* to complete an electronic proxy card. You will be asked to provide the company number and account number from the Notice. Your vote must be received by 11:59 p.m. Eastern time, on June 13, 2017 to be counted.

Beneficial Owner — Shares Registered in the Name of a Broker or Bank: If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a Notice containing voting instructions from that organization rather than from us. Simply follow the voting instructions in the Notice to ensure that your vote is counted. To vote in person at the annual meeting, you must obtain a valid proxy from your broker, bank, or other agent. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

#### How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of April 18, 2017.

#### What if I return a proxy card or otherwise vote but do not make specific choices?

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, "For" the election of all nominees for director, "For" ratification of RSM US LLP as our independent registered public accounting firm for 2017 and "For" the approval, on an advisory basis, of the compensation of our named executive officers as disclosed in this proxy statement and for "One" as the preferred frequency of advisory votes to approve executive compensation. If any other matter is properly presented at the annual meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using his best judgment.

#### Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

#### What does it mean if I receive more than one Notice?

If you receive more than one Notice, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on each Notice to ensure that all of your shares are voted.

#### Can I change my vote after submitting my proxy?

Yes. You can revoke your proxy at any time before the final vote at the annual meeting. If you are the record holder of your shares, you may revoke your proxy in any one of the following ways:

- You may submit another properly completed proxy card with a later date.
- You may grant a subsequent proxy by telephone or through the internet.
- You may send a timely written notice that you are revoking your proxy to our Secretary at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129.
- You may attend the annual meeting and vote in person. Simply attending the annual meeting will not, by itself, revoke your proxy.

Your most current proxy card, telephone proxy or internet proxy is the one that is counted.

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

#### How are votes counted?

Votes will be counted by the inspector of election appointed for the annual meeting, who will separately count, for the proposal to elect directors (Proposal No. 1), votes "For," "Withhold" and broker non-votes; with respect to Proposals Nos. 2 and 3, votes "For" and "Against," abstentions and, if applicable, broker non-votes; and with respect to Proposal No. 4, votes for frequencies of one year, two years or three years, abstentions and

broker non-votes. Abstentions will be counted towards the vote total for Proposals Nos. 2 and 3 and will have the same effect as "Against" votes. For Proposal No. 4, abstentions will have no effect and will not be counted towards the vote total. Broker non-votes have no effect and will not be counted towards the vote total for any proposal.

#### What are "broker non-votes"?

Broker non-votes occur when a beneficial owner of shares held in "street name" does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed "non-routine." Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker or nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker or nominee can still vote the shares with respect to matters that are considered to be "routine," but not with respect to "non-routine" matters.

## Which ballot measures are considered "routine" or "non-routine"?

The ratification of the appointment of RSM US LLP as our independent registered public accounting firm for 2017 (Proposal No. 2) is a matter considered routine under applicable rules. A broker or other nominee may generally vote on routine matters, and therefore, no broker non-votes are expected to exist in connection with Proposal No. 2.

The election of directors (Proposal No. 1), the approval, on an advisory basis, of the compensation of our named executive officers (Proposal No. 3) and the approval, on an advisory basis, of the frequency of shareholder votes on executive compensation (Proposal No. 4) are matters considered non-routine under applicable rules. A broker or other nominee cannot vote without instructions on non-routine matters, and therefore, there may be broker non-votes on Proposals Nos. 1, 3 and 4.

#### How many votes are needed to approve each proposal?

- For Proposal No. 1, which relates to the election of directors, the six nominees receiving the most "For" votes (from the holders of votes of shares present in person or represented by proxy and entitled to vote on the election of directors) will be elected. Only votes "For" will affect the outcome. Broker non-votes will have no effect.
- To be approved, Proposal No. 2, which relates to the ratification of the appointment of RSM US LLP as our independent registered public accounting firm for 2017, must receive "For" votes from the holders of a majority of shares present in person or represented by proxy and entitled to vote at the meeting. If you "Abstain" from voting, it will have the same effect as an "Against" vote. Although none are expected to exist in connection with Proposal No. 2, broker non-votes, if any, will have no effect.
- To be approved, Proposal No. 3, which relates to the approval, on an advisory basis, of the compensation of our named executive officers, will be considered approved if it receives "For" votes from the holders of a majority of shares present in person or represented by proxy and entitled to vote at the annual meeting. If you "Abstain" from voting, it will have the same effect as an "Against" vote. Broker non-votes will have no effect.
- To be approved, Proposal No. 4, which relates to the advisory vote on the frequency of shareholder advisory votes on executive compensation, the frequency receiving the highest number of votes from the holders of shares present in person or represented by proxy and entitled to vote at the annual meeting will be considered the frequency preferred by the stockholders. Abstentions will be counted towards the vote total, and will have the same effect as an "Against" vote. Broker non-votes will have no effect.

#### What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding at least a majority of the outstanding shares entitled to vote are present at the annual meeting in person or represented by proxy. Thus, the holders of 66,193,831 shares must be present in person or represented by proxy at the annual meeting to have a quorum.

Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote in person at the annual meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the holders of a majority of shares present at the annual meeting in person or represented by proxy may adjourn the annual meeting to another date.

#### How can I find out the results of the voting at the annual meeting?

Preliminary voting results will be announced at the annual meeting. Final voting results will be filed on a current report on Form 8-K on or before June 20, 2017.

A COPY OF OUR 2016 ANNUAL REPORT (INCLUDING A COPY OF OUR ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2016, AS FILED WITH THE SEC) IS AVAILABLE WITHOUT CHARGE UPON WRITTEN REQUEST TO ZIOPHARM ONCOLOGY, INC., ONE FIRST AVENUE, PARRIS BUILDING 34, NAVY YARD PLAZA, THIRD FLOOR, BOSTON, MASSACHUSETTS 02129, ATTENTION: SECRETARY OR YOU MAY CONTACT OUR SECRETARY AT (617) 259-1970.

#### PROPOSALS

## **Proposal No. 1. Election of Directors**

Our board of directors currently consists of the six directors identified below, plus one vacancy. Each director was previously elected by the stockholders. If re-elected, each nominee has consented to serve as one of our directors, to hold office until the next annual meeting of stockholders, until his successor is elected and shall have qualified, or until his earlier death, resignation or removal. Proxies cannot be voted for a greater number of persons than the number of nominees named in the proxy statement. If any director nominee should withdraw or otherwise become unavailable to serve, the proxies which would have otherwise been voted for that director nominee may be voted for a substitute director nominee selected by our board. We are not aware of any reason that a nominee will be unable or unwilling to serve as a director.

In 2016, we adopted a Director Resignation Policy. Under this policy, any nominee in an uncontested election who does not receive a majority of the votes cast (i.e. receives a greater number of votes "withheld" from his or her election than votes "for" in such election) shall submit his or her offer of resignation for consideration by the corporate governance and nominating committee. The corporate governance and nominating committee shall consider all of the relevant facts and circumstances and recommend to the board the action to be taken with respect to such offer of resignation, and the board will then act on such recommendation.

Assuming that all nominees are elected at the annual meeting, we will have one vacancy on our board following the annual meeting. Vacancies on the board may be filled only by persons elected by a majority of the remaining directors or may be elected by a plurality of the stockholder votes cast. A director elected by the board to fill a vacancy, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term or until the director's successor is duly elected and qualified, or until the director's earlier death, resignation or removal. Our board of directors may appoint a director to fill the vacancy on the board at any time following the annual meeting.

Our corporate governance and nominating committee seeks to assemble a board that, as a whole, possesses the appropriate balance of professional and industry knowledge, financial expertise and management experience necessary to oversee and direct our business. To that end, the corporate governance and nominating committee has evaluated the board's current members in the broader context of the board's overall composition. The corporate governance and nominating committee maintains a goal of recruiting members who complement and strengthen the skills of other members and who also exhibit integrity, collegiality, sound business judgment and other qualities that the corporate governance and nominating committee views as critical to effective functioning of the board.

The following table sets forth each nominee to be elected at the annual meeting, the year each nominee was first elected as a director, the position(s) currently held by each nominee with us and the year each nominee's term will expire, if such nominee is elected at the annual meeting.

Name of Nominee	Position(s) with the Company	Year First Became a Director	Year Proposed Term Will Expire
Sir Murray Brennan, M.D., GNZM	Lead Director	2005	2018
James A. Cannon	Director	2005	2018
Senator Wyche Fowler, Jr.	Director	2005	2018
Randal J. Kirk	Director	2011	2018
Scott Tarriff	Director	2015	2018
Michael Weiser, M.D., Ph.D.	Director	2005	2018

None of the director nominees is related by blood, marriage or adoption to any of our other director nominees or executive officers. Mr. Randal J. Kirk, as a designee of Intrexon Corporation, or Intrexon, has been nominated and recommended for re-election at the annual meeting in accordance with a Stock Purchase Agreement dated January 6, 2011 between us and Intrexon. Pursuant to that agreement, we agreed that at each stockholders' meeting at which directors are to be elected, we will nominate and recommend for election to the board an individual designated by Intrexon, provided that the board determines that he or she is a suitable candidate. We further agreed that if Intrexon's designee is not elected to the board by our stockholders, then, at Intrexon's election, such designee will be entitled to attend all board and committee meetings as an observer subject to certain conditions and limitations. Other than Mr. Kirk, no other the director nominee is party to an arrangement or understanding with any person pursuant to which the nominee is to be selected or nominated for election as a director.

#### **Vote Required**

Pursuant to our bylaws, directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of directors. The six nominees receiving the highest number of "For" votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the six nominees named above. If you do not vote for a particular nominee, or you withhold authority for one or all nominees, your vote will not count either "For" or "Against" the nominee, although it will be counted for purposes of determining whether there is a quorum.

#### The board recommends that you vote FOR the election of each named nominee.

#### Proposal No. 2. Ratification of Appointment of Independent Registered Public Accounting Firm

The board of directors 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 the board has appointed RSM US LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017. A representative of RSM US LLP is expected to attend the annual meeting. He or she will have an opportunity to make a statement if he or she so desires and will be available to respond to appropriate questions from stockholders.

We are not required by statute or our by-laws or other governing documents to obtain stockholder ratification of the appointment of RSM US LLP as our independent registered public accounting firm. The audit committee has submitted the appointment of RSM US LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders do not ratify the appointment, the audit committee may reconsider its selection. Notwithstanding the proposed ratification of the appointment of RSM US 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 our best interests and the best interests of our stockholders.

#### **Vote Required**

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the annual meeting will be required to ratify the appointment of RSM US LLP. Abstentions will be counted toward the tabulation of votes cast on proposals presented to the stockholders and will have the same effect as "Against" votes. Broker non-votes are counted towards a quorum, but are not counted for any purpose in determining whether this matter has been approved.

## The board recommends that you vote FOR the ratification of the appointment of RSM US LLP as our independent registered public accounting firm for 2017.

#### Proposal No. 3. Advisory Vote on Executive Compensation

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, our stockholders are entitled to vote to approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the rules of the Securities and Exchange Commission, or the SEC. This vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the philosophy, policies and practices described in this proxy statement. We currently intend to conduct this advisory vote annually, with the next such vote to occur at next year's annual meeting.

The compensation of our named executive officers is disclosed in the section entitled "Executive Compensation" below, including the tabular and narrative disclosures set forth in such section under the headings "Executive Compensation Tables" and "Compensation Discussion and Analysis." As discussed in those disclosures, we believe that our compensation policies and decisions are focused on pay-for-performance principles and strongly aligned with our stockholders' interests. Compensation of our named executive officers is designed to enable us to attract, motivate and retain talented and experienced executives to lead the us successfully in a competitive environment.

At the 2016 Annual Meeting of Stockholders, 71.5% of the votes cast on the advisory vote on executive compensation proposal (often referred to as "say-on-pay") were in favor of our named executive officer compensation as disclosed in the proxy statement and, as a result, our named executive officer compensation was approved.

We are asking our stockholders to indicate their support for the compensation of our named executive officers as described in this proxy statement by casting a non-binding advisory vote "FOR" the following resolution:

## "RESOLVED, that the stockholders approve the compensation of the "named executive officers" of ZIOPHARM Oncology, Inc., as disclosed in the section entitled "Executive Compensation" in the Proxy Statement for the ZIOPHARM Oncology, Inc. 2017 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission."

#### Vote Required

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the annual meeting will be required to approve, on an advisory basis, the compensation of our named executive officers as described herein. Because the vote is advisory, it will not be binding on us, the board or its compensation committee. Nevertheless, the views expressed by our stockholders, whether through this vote or otherwise, are important to us and, accordingly, the board and its compensation committee intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

# The board recommends that you vote FOR the proposal to approve the compensation of our named executive officers, as described in this proxy statement.

#### Proposal No. 4. Advisory Vote on the Frequency of Solicitation of Advisory Shareholder Approval of Executive Compensation

The Dodd-Frank Act, and Section 14A of the Securities Exchange Act of 1934, as amended, or the Exchange Act, enable our shareholders, at least once every six years, to indicate their preference regarding how frequently we should solicit a non-binding advisory vote on the compensation of our named executive officers as disclosed in our proxy statement. Currently, consistent with the preference expressed by the shareholders at our 2011 Annual Meeting of Shareholders, the policy of the board is to solicit a non-binding advisory vote on the compensation of our named executive officers every year. In accordance with the Dodd-Frank Act we are again asking shareholders to indicate whether they would prefer an advisory vote every year, every other year or every three years. Alternatively, shareholders may abstain from casting a vote. The optimal frequency of vote necessarily turns on a judgment about the relative benefits and burdens of each of the options. There have been diverging views expressed on this question and the board believes there is a reasonable basis for each of the options.

Some have argued for less frequency. They point out that a less frequent vote would allow shareholders to focus on overall design issues rather than details of individual decisions, would align with the goal of compensation programs — such as ours — which are designed to reward performance that promotes long-term shareholder value, and would avoid the burden that annual votes would impose on shareholders required to evaluate the compensation programs of a large number of companies each year.

Others believe that an annual vote is needed to give shareholders the opportunity to react promptly to emerging trends in compensation, provide feedback before those trends become pronounced over time, and give the board and the compensation committee the opportunity to evaluate individual compensation decisions each year in light of the ongoing feedback from shareholders.

Our board believes that the most strongly held views on this question favor an annual advisory vote. After considering the benefits and consequences of each alternative, the board recommends that the advisory vote on the compensation of our named executive officers be submitted to the shareholders annually.

Accordingly, the board is asking the shareholders to indicate their preferred voting frequency by voting for one, two or three years or abstaining from voting on this proposal. The alternative among one year, two years or three years that receives the highest number of votes from the holders of shares present in person or represented by proxy and entitled to vote on the matter at the annual meeting will be deemed to be the frequency preferred by the shareholders and will be the alternative selected in the following resolution to be submitted to the shareholders for a vote at the annual meeting:

#### "RESOLVED, that the frequency of every [one year] [two years] [three year] is hereby APPROVED as the frequency preferred by shareholders for the solicitation of advisory shareholder approval of the compensation paid to our named executive officers."

#### **Vote Required**

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the annual meeting will be required to approve, on an advisory basis, the preferred frequency of shareholder advisory votes on the compensation of our named executive officers. Because the vote is advisory, it will not be binding on us, the board or its compensation committee. Nevertheless, the views expressed by our stockholders, whether through this vote or otherwise, are important to us and, accordingly, the board and its compensation committee intend to consider the results of this vote in making determinations regarding the frequency of the Company's future advisory votes on the approval of the Company's executive officer compensation practices.

## The board recommends that you vote for the frequency of every "ONE" year as the frequency preferred by shareholders for the solicitation of advisory shareholder approval of the compensation paid to our named executive officers.

### **Other Matters**

The board of directors is not aware of any matter to be presented for action at the annual meeting other than the four proposals described above. The board does not intend to bring any other matters before the annual meeting.

#### Stockholder Proposals for the 2018 Annual Meeting of Stockholders

Stockholders who intend to have a proposal considered for inclusion in our proxy materials for presentation at the 2018 Annual Meeting of Stockholders pursuant to Rule 14a-8 under the Exchange Act, must be received by our Secretary at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129, by no later than December 29, 2017. Due to the complexity of the respective rights of the stockholders and us in this area, any stockholder desiring to propose such an action is advised to consult with his or her legal counsel with respect to such rights. We suggest that any such proposal be submitted to us by certified mail, return receipt requested.

Rule 14a-4 under the Exchange Act governs our use of our discretionary proxy voting authority with respect to a stockholder proposal that the stockholder has not sought to include in our proxy statement. Rule 14a-4 provides that if a proponent of a proposal fails to notify us at least 45 days prior to the month and day of mailing of the prior year's proxy statement, management proxyholders will be allowed to use their discretionary voting authority when the proposal is raised at the annual meeting, without any discussion of the matter. If a stockholder wishes to bring a matter before the stockholders at the 2018 Annual Meeting of Stockholders but does not notify us before March 14, 2018, for all proxies we receive, the management proxyholders will have discretionary authority to vote on the matter, including discretionary authority to vote in opposition to the stockholder's proposal.

## CURRENT DIRECTORS, DIRECTOR NOMINEES AND EXECUTIVE OFFICERS

The following table contains biographical information, as of the date of this proxy statement, of each of our current directors, director nominees and executive officers. In addition, the table contains information about the specific and particular experience, qualifications, attributes or skills of each current director and each nominee for director at the annual meeting that led the corporate governance and nominating committee to believe that such current director was appropriate for nomination at a previous annual meeting of stockholders and, in the case of each nominee for director at the annual meeting, that such nominee should continue to serve on the board.

Sir Murray Brennan, M.D., GNZM Lead Director	Dr. Brennan, who currently serves as the board's non-executive Lead Director, has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and previously served as a director of ZIOPHARM, Inc. since December 2004. Dr. Brennan is Emeritus Chairman of Memorial Sloan-Kettering's Department of Surgery and previously served as its Chairman from 1985 to 2007. Dr. Brennan is the Benno C. Schmidt Chair in Clinical Oncology at the Memorial Sloan Kettering Cancer Center, and currently serves as its Vice President for International Programs. Dr. Brennan also is a member of the Institute of Medicine of The National Academy of Sciences. He actively lectures at major institutions throughout the world and has authored or co-authored more than 1,000 scientific papers. He previously served as a director of the American Board of Surgery, Chairman of the American College of Surgeons Commission on Cancer, President of the Society of Surgical Oncology, President of the American Surgical Association, President of the Society of Clinical Surgery and Vice President of the American College of Surgeons. He is the recipient of numerous honors, honorary degrees and fellowships for his leadership role in surgery and oncology worldwide. He serves on the board of directors of the de Beaumont Foundation, a charitable foundation designed to support public health in the United States and elsewhere. He received a knighthood from her Majesty the Queen of England in January 2015. Dr. Brennan is 77 years old.
	Dr. Brennan's credentials and standing in the medical community worldwide, and the oncology community specifically, along with the leadership roles in which he has served at various esteemed organizations, provide experience and credibility that the board believes make him well suited to serve on the board and as its non-executive Lead Director.
James A. Cannon <i>Director</i>	Mr. Cannon has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and previously served as a director of ZIOPHARM, Inc. since December 2004. Mr. Cannon is currently Vice Chairman, Chief Financial Officer and a member of the board of directors of BBDO Worldwide, an advertising agency. In these capacities, he oversees the financial management of BBDO operations in 77 countries. Mr. Cannon joined BBDO in 1967, was promoted to Chief Financial Officer of the agency in 1984, and was elected to its board of directors one year later. An integral member of the team that formed Omnicom via a unique three-agency merger of BBDO, DDB and Needham Harper & Steers, Mr. Cannon became Comptroller of the new group (NYSE: OMC) and a member of its board of directors in 1986, a position he held through 2002. In 1987, he was appointed Director of Financial Operations of the Omnicom Group, serving in this capacity until early 1989 when he rejoined BBDO Worldwide as Executive Vice President and Chief Financial Officer. His return was concurrent with that of Allen Rosenshine who became Chairman and Chief Executive officer of BBDO after

heading Omnicom. Mr. Cannon was promoted to Vice Chairman of the agency in 1990. Mr. Cannon is a graduate of Pace University and served in the U.S. Marine Corps. Mr. Cannon is 78 years old. The board believes that Mr. Cannon is qualified to serve as one of our directors based on his financial skills and overall business judgment. In addition, the role played by Mr. Cannon at BBDO, where he oversees the financial management of that company's international operations, uniquely qualifies him to serve as Chair of our audit committee. Senator Fowler has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. Senator Wyche Fowler, Jr. Director and previously served as a director of ZIOPHARM, Inc. since December 2004. Senator Fowler served for 16 years in the United States Congress representing the state of Georgia, from April 1977 to January 1993. In the U.S. Senate he served as assistant floor leader, helping mold a bipartisan consensus for major public policy issues. Senator Fowler was a member of the U.S. Senate Appropriations, Budget, Energy and Agriculture Committees. First elected to the U.S. House of Representatives, he was a member of the Ways and Means and Foreign Affairs Committees, as well as the Select Committee on Intelligence. Following his service in the United States Congress, Senator Fowler served as U.S. Ambassador to the Kingdom of Saudi Arabia from 1996 through 2001. On his return, the FBI awarded him its highest civilian honor, The Jefferson Cup, for his assistance in combating terrorism and for helping solve terrorism crimes against the U.S. military in Saudi Arabia. He was named Lion of Judah by the State of Israel for successfully freeing Soviet Jew Yakov Gluzman. Senator Fowler is currently engaged in an international business and law practice, and serves as Chairman Emeritus of the Board of the Middle East Institute, a non-profit foundation in Washington, D.C. Senator Fowler also serves on the board of directors of Shubert Theaters, the Shubert Foundation, Brandywine Realty Trust. Senator Fowler holds an A.B. in English from Davidson College and a J.D. from Emory University School of Law. Senator Fowler is 76 years old. Senator Fowler's background and experience in the United States Congress, and the leadership qualities exemplified during and since his tenure in Congress, are attributes that the board believes benefit our overall board operations. In addition, his international business and law experience qualify him to serve on the board. Randal J. Kirk Mr. Kirk has been one of our directors since January 2011. Mr. Kirk is the Senior Managing Director and Director Chief Executive Officer of Third Security, LLC, an investment management firm founded by Mr. Kirk. Additionally, Mr. Kirk founded and became Chairman of the board of directors of New River Pharmaceuticals Inc. (previously traded on NASDAQ prior to its acquisition by Shire plc in 2007) in 1996, and was President and Chief Executive Officer between October 2001 and April 2007. Mr. Kirk began his professional career in the private practice of law. Previously, Mr. Kirk served as a member of the board of directors of Scios, Inc. (previously traded on NASDAQ prior to its acquisition by Johnson & Johnson) between February 2000 and May 2002, and as a member of the board of directors of Clinical Data, Inc.

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Mr. Kirk currently serves in a number of

(previously traded on NASDAQ prior to its acquisition by Forest Laboratories, Inc. in April 2011) from September 2002 to April 2011, and was Chairman of the board from December 2004 to April 2011.

	<ul> <li>additional capacities, including as a member of the board of directors of Halozyme Therapeutics, Inc. (NASDAQ: HALO), since May 2007 and as Chairman of the board of directors of Intrexon Corporation since February 2008 and Chief Executive Officer since April 2009. Mr. Kirk served on the Board of Visitors of Radford University from July 2003 to June 2009, was Rector of the board from September 2006 to September 2008, and has served on the board of directors of the Radford University Foundation, Inc. from September 1998 to May 2011. He served on the Board of Visitors of the University of Virginia and Affiliated Schools from July 2009 to October 2012, on the Virginia Advisory Council on Revenue Estimates from July 2006 to October 2012, and on the Governor's Economic Development and Jobs Creation Commission from April 2010 to October 2012. Mr. Kirk received a B.A. in business from Radford University and a J.D. from the University of Virginia. Mr. Kirk is 63 years old.</li> <li>The board believes that Mr. Kirk's extensive experience and long-term record of achievement as an entrepreneur, investor, top executive and board member of numerous leading pharmaceutical and other health care companies qualifies him to serve on the board. Although we do not believe that share ownership qualifies any person to serve as one of our directors, we also believe that Mr. Kirk's direct and indirect ownership of our common stock (approximately 7.4% beneficial ownership as of the Record Date) aligns</li> </ul>
	his interests with those of our stockholders and drives the board's focus on maximizing stockholder value.
Scott Tarriff Director	Mr. Tarriff has been one of our directors since September 2015. Mr. Tarriff has served as the President, Chief Executive Officer and as a member of the Board of Directors of Eagle Pharmaceuticals, Inc. since its inception in January 2007. Prior to joining Eagle, Mr. Tariff held various executive positions at Par Pharmaceutical Companies, Inc., a publicly-traded developer, manufacturer and marketer of specialty pharmaceuticals, including as president and chief executive officer from September 2003 to September 2006, after joining Par in 1998. Mr. Tarriff also served on Par's Board of Directors from 2002 to September 2006. Prior to that, Mr. Tarriff held various positions with Bristol-Meyers Squibb, a publicly-traded biopharmaceutical company, including senior director-marketing. Mr. Tarriff has served as a director of Synthetic Biologics, Inc., a publicly-traded biotechnology company, since February 2012 and previously served on the Board of Directors of Clinical Data, Inc., a publicly-traded pharmaceutical company, from September 2009 to April 2011 when Clinical Data was acquired by Forest Laboratories, Inc. Mr. Tarriff holds a B.S. in marketing from Pennsylvania State University and an M.B.A. from Rider College. Mr. Tarriff is 57 years old.
	The board believes that Mr. Tarriff's long-term record of achievement and extensive experience as a board member and senior executive in the pharmaceutical and biotechnology industries, coupled with his extensive expertise in company operations and management, including his knowledge of the clinical development and regulatory process, qualifies him to serve on the board.
Michael Weiser, M.D., Ph.D.	Dr. Weiser has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and

Director

Dr. Weiser has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and previously served as a director of ZIOPHARM, Inc. since its inception in September 2003. Dr. Weiser is

	currently founder and co-chairman of Actin Biomed, a New York-based healthcare investment firm advancing the discovery and development of novel treatments for unmet medical needs. Prior to joining Actin Biomed in December 2006, Dr. Weiser was the Director of Research at Paramount BioCapital where he was responsible for the scientific, medical and financial evaluation of biomedical technologies and pharmaceutical products under consideration for development. In addition, Dr. Weiser has received awards for both academic and professional excellence and is published extensively in both medical and scientific journals. Dr. Weiser is a member of The National Medical Honor Society, Alpha Omega Alpha, American Society of Clinical Oncology, American Society of Hematology and Association for Research in Vision and Ophthalmology. Dr. Weiser currently serves on the board of directors of Emisphere Technologies, Inc., a biopharmaceutical company, as well as on the board of directors of several privately held companies. Dr. Weiser previously served as a director of Chelsea Therapeutics International, Hana Biosciences, Inc., Manhattan Pharmaceuticals, Inc. and Vioquest Pharmaceuticals, Inc. Dr. Weiser completed his Ph.D. in Molecular Neurobiology at Cornell University Medical College and received his M.D. from New York University School of Medicine. He performed his post-graduate medical training in the Department of Obstetrics and Gynecology at New York University Medical Center. Dr. Weiser also completed a Postdoctoral Fellowship in the Department of Physiology and Neuroscience at New York University School of Medicine and received his B.A. in psychology from University of Vermont. Dr. Weiser is 54 years old.
	Dr. Weiser's medical education and background coupled with his experiences as co-chairman of a healthcare investment firm and former Director of Research for a biotechnology investment banking firm, provide him with a unique background and skill set that the board believes has added and continue to add value to the board. In addition, Dr. Weiser's service on the boards of directors of various public biotechnology companies and his knowledge of compensation trends also makes him well suited to serve as the Chair of our compensation committee.
Laurence James Neil Cooper, M.D., Ph.D. <i>Chief Executive Officer</i>	Dr. Cooper has served as our Chief Executive Officer since May 2015. Prior to joining us, Dr. Cooper led the Pediatric Cell Therapy service (formally named the BMT program) as a tenured professor at the University of Texas M.D. Anderson Cancer Center, or MD Anderson, where he had worked since 2006. In addition to caring for children, adolescents and young adults undergoing autologous and allogeneic hematopoietic stem-cell transplantation, referred to as HSCT, at MD Anderson, he ran a laboratory translating immunology into clinical practice. His program had multiple investigator-initiated trials that infuse T cells and NK cells to target malignancies. Dr. Cooper also holds an appointment as a Visiting Scientist at MD Anderson and as Adjunct Professor of Pathology & Laboratory Medicine at the Perelman School of Medicine at the University of Pennsylvania. Dr. Cooper obtained his BA at Kenyon College in Gambier, Ohio and M.D. and Ph.D. degrees at Case Western Reserve University in Cleveland before training in Pediatric Oncology and Bone Marrow Transplantation, or BMT, at the Fred Hutchinson cancer Research Center in Seattle. Dr. Cooper is 52 years old.

Caesar J. Belbel Chief Operating Officer, Executive Vice President, Chief Legal Officer and Secretary	Mr. Belbel has served as our Chief Operating Officer since June 2015 and as our Executive Vice President, Chief Legal Officer and Secretary since September 2011. From May 2003 to May 2011, he was Executive Vice President, Chief Legal Officer and Secretary of Clinical Data, Inc., a biopharmaceutical company that was acquired in April 2011 by Forest Laboratories, Inc. Mr. Belbel holds a bachelor's degree from Columbia University and a juris doctor degree from Boston College Law School. Mr. Belbel is 57 years old.
Francois Lebel, M.D. Executive Vice President, Research and Development and Chief Medical Officer	Dr. Lebel has served as our Executive Vice President, Research and Development and Chief Medical Officer since February, 2015. Previously, Dr. Lebel served as our Vice President, Medical Operations from February 2013 until February 2015. From 2011 to July 2012, Dr. Lebel served as Vice President, Research & Development at Baxter Healthcare International (NYSE: BAX), a global healthcare company with expertise in medical devices, pharmaceuticals and biotechnology, and from April 2007 to July 2011, Dr. Lebel served as Vice President, Global Clinical and Medical Affairs for Baxter, Medication Delivery. From October 2004 to September 2006 Dr. Lebel was Vice President, Medical & Scientific Affairs for Medimmune, Inc., a biotechnology company that was acquired by AstraZeneca plc in 2007. Prior to Medimmune, Dr. Lebel gained leadership experience in development, medical affairs, regulatory and pharmacovigilance in various roles of increasing responsibilities at Chiron, Warner-Lambert and Burroughs Wellcome. Dr. Lebel holds an M.D. and B.S. from the University of Ottawa and is Board Certified in Internal Medicine and an Infectious Diseases specialist trained at McGill University and Harvard Medical School. Dr. Lebel is 65 years old.
Kevin G. Lafond Vice President – Finance, Chief Accounting Officer and Treasurer	Mr. Lafond has served as our Vice President Finance, Chief Accounting Officer and Treasurer since June 2013 and is our principal financial and accounting officer. Previously, Mr. Lafond served as the company's Corporate Controller since he joined us in February 2009 until June 2013. Prior to joining us, Mr. Lafond served as Controller of Helicos Biosciences Corporation, a public life sciences equipment manufacturer not affiliated with Ziopharm, from February 2007 to October 2008. Mr. Lafond holds a bachelor's degree from Plymouth State University, master's degrees in both accounting and taxation from Bentley University and is a Certified Public Accountant. Mr. Lafond is 61 years old.

There are no family relationships among any of our current directors, director nominees or executive officers. None of the executive officers is related by blood, marriage or adoption to any of our other directors, director nominees or executive officers.

## EXECUTIVE COMPENSATION

## **Compensation Discussion and Analysis**

#### Overview

This Compensation Discussion and Analysis explains our executive compensation philosophy and objectives, programs and practices, compensation setting process and the 2016 compensation of our named executive officers. As discussed in Proposal No. 3 of this proxy statement, we are conducting our annual advisory vote on executive compensation, or "say-on-pay" vote, that requests your approval of the compensation of our named executive officers, as described in this subsection titled "—Compensation Discussion and Analysis" and in the tables and accompanying narrative contained below under this section "Executive Compensation." To assist you with this vote, please review our compensation philosophies, the design of our executive compensation programs and how, we believe, these programs have met our objectives.

For 2016, our named executive officers were:

- Dr. Laurence James Neil Cooper, Chief Executive Officer
- Caesar J. Belbel, Chief Operating Officer, Executive Vice President, Chief Legal Officer and Secretary
- Dr. Francois Lebel, Executive Vice President, Research and Development and Chief Medical Officer
- Kevin G. Lafond, Vice President Finance, Chief Accounting Officer and Treasurer

#### Executive Summary - Key Objectives and Compensation Elements

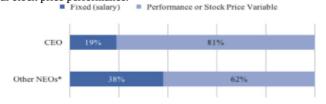
We believe that our executive compensation programs should:

- (i) Be tied to overall Company performance;
- (ii) Reflect each executive's level of responsibility, performance and contributions;
- (iii) Include a significant equity component to ensure alignment with our stockholders; and,
- (iv) Provide fully competitive total compensation opportunities, consistent with our performance, that allow us to attract, retain and motivate talented employees, including our named executive officers.

We believe that by structuring the executive compensation program so that a significant portion of our named executive officers' pay is at risk, including a significant equity-based component, we can best ensure our named executive officers are incentivized to maximize our performance and increase value for our shareholders. To this end, our program is comprised of three primary elements:

Compensation <u>Element</u> Base Salary	Fixed or Variable Fixed	<u>Description</u> To attract and retain executives by offering fixed compensation that is competitive with market opportunities and that recognizes each executive's position, role, responsibility and experience.
Annual Performance Bonus	Variable	To motivate and reward the achievement of our annual performance, including objectives related to our strategic development, research and clinical development programs, and stockholder return.
Equity Awards	Variable	To align executives' interests with the interests of stockholders through equity-based compensation and promote the long-term retention of our executives and key management personnel.

Our executive compensation program places a significant percentage of our executive's target pay at risk and ties to achievement of our corporate performance goals and/or is dependent upon our stock price performance.



## 2016 Company Performance Highlights

The highlights of our performance for 2016 include:

- In February 2016, we announced that the first patient was enrolled in a new Phase 1 clinical study of our second generation non-viral CD19-specific CAR modified T-cell therapy in patients with advanced lymphoid malignancies.
- In early June 2016, we presented data from our ongoing Phase 1, multi-center dose-escalation study of the gene therapy candidate Ad-RTS-hIL-12 + orally-administered veledimex in patients with recurrent or progressive glioblastoma (GBM) or grade III malignant glioma at the American Society of Clinical Oncology (ASCO) Annual Meeting.
- In late June 2016, we announced the successful completion of enrollment in the first and second dosing cohorts as well as the initiation of enrollment in a third cohort in our glioblastoma study.
- In early July 2016, we announced the amendment of our exclusive channel collaborations with Intrexon Corporation in the fields of oncology and graft-versus-host-disease resulting in new economic terms that are more favorable to us.
- In August 2016, we announced the publication of the first-in-human trials using the non-viral Sleeping Beauty System to express CD19-Specific CAR in T cells in the Journal of Clinical Investigation.
- In October 2016, we announced the presentation of preliminary data from our Phase 1b/2 study of Ad-RTS-hIL-12 + veledimex following standard chemotherapy for the treatment of patients with locally advanced or metastatic breast cancer at the European Society for Medical Oncology (ESMO) 2016 Congress.
- In November 2016, we presented data for Ad-RTS-hIL-12 + orally-administered veledimex demonstrating survival benefits in patients with recurrent brain cancer at the 21st Annual Scientific Meeting of the Society for Neuro-Oncology (SNO).
- In January 2017, after completing our Phase 1 clinical study, we announced we were granted an end-of-Phase 2 meeting with the U.S. Food and Drug Administration to determine a pivotal trial design for Ad-RTS-hIL-12 + veledimex for recurrent GBM.

#### Compensation Highlights

- Our chief executive officer's 2016 total compensation was approximately 80% lower than our chief executive officer's 2015 compensation, with his 2016 equity grant being reduced by approximately 89% of the value of his special off-cycle 2015 equity awards granted in connection with his commencement of employment, as such values are reported in our Summary Compensation Table. We did not increase the chief executive officer's base salary or target bonus for 2016 or 2017.
- A substantial portion of our executive pay is structured to be "at risk" and dependent upon our performance, in the form of performance-based bonuses and equity incentive awards. For 2016,

approximately 76% of our chief executive officer's actual total compensation was paid in the form of such "at-risk" compensation, as reported in our Summary Compensation Table.

- Our annual bonuses are based on two variously-weighted corporate goals related to key operational objectives and stockholder return. For 2016, because we met a substantial portion of our operational objectives, accordingly, our named executive officers were awarded 70% of their target bonuses.
- Our compensation committee retains an outside compensation consultant for guidance in making executive compensation decisions, annually
  evaluates our compensation against market practices and develops a peer group of companies each year who are comparable to our company and
  appropriate reference points in evaluating the appropriateness of our executive compensation program.
- Our severance payments are reasonable in amount and we do not provide our named executive officers with any 280G tax gross ups in connection with a change in control.

#### Stockholder Advisory Vote

At the 2016 Annual Meeting of Stockholders, 71.5% of the votes cast on the advisory vote on executive compensation proposal (often referred to as "say-on-pay") were in favor of our named executive officer compensation as disclosed in the proxy statement and, as a result, our named executive officer compensation was approved. The compensation committee carefully considered the final vote results as well as the proxy advisory firm analyses of our executive pay program to evaluate whether changes to the program were advisable. The compensation committee did not make any specific changes to our 2016 executive compensation policies and decisions as a result of the vote. The compensation committee was mindful that 2015 was a unique year as we hired a new chief executive officer and promoted one of our executive officers to chief operating officer and it determined that it would continue to thoughtfully evaluate our pay programs in light of stockholder feedback and the results of stockholder advisory votes going forward. In addition, in this proxy statement, we have enhanced our executive compensation disclosures to promote transparency.

#### Role of our Compensation Committee, Management and Consultant

#### Compensation Committee

Our compensation committee is responsible for reviewing, evaluating, approving, administering and interpreting our executive compensation and benefits policies, programs and plans, including our equity compensation plans. In particular, with respect to the compensation of our named executive officers, our compensation committee is responsible for reviewing and recommending to the outside, independent and non-employee members of the board of directors the compensation levels and performance goals relevant to the compensation of these officers, and for evaluating the officers' performance in light of those goals and objectives. In December 2015, our compensation committee presented its recommendations on 2016 base salary adjustments to go into effect on January 1, 2016. Our compensation committee met in December 2016 to determine recommended 2017 base salary adjustments to go into effect on January 1, 2017, company objectives for 2017, bonus awards in respect of 2016 performance, and equity incentive awards for our named executive officers. All of such recommendations were approved by the independent, outside, non-employee directors on the board of directors. The board of directors approved the compensation committee's recommendations as presented.

#### Management

Our Human Resources, Finance and Legal departments work with our chief executive officer to design and develop new executive compensation programs, to recommend changes to existing compensation programs, to recommend financial and other performance targets to be achieved under those programs, to prepare analyses of financial data, to prepare peer group data comparisons and other briefing materials for consideration by the compensation committee and ultimately to implement the decisions of the compensation committee. Members of

these departments and our chief executive officer also provide perspective to the compensation committee for consulting and meeting with our independent compensation consultant to convey information to allow the consultant to perform its services for the compensation committee.

The chief executive officer recommends to the compensation committee for its discussion and ultimately, approval, proposed corporate performance and strategic goals and their relative weighting for the upcoming fiscal year, as well as provides input on the level of attainment of the prior year's strategic goals, for purposes of determining awards under the annual performance bonus plan for all our executives, including the chief executive officer. For executives other than the chief executive officer, the compensation committee considers the individual performance of the executives, as determined by the chief executive officer, and the compensation recommendations submitted to the compensation committee by the chief executive officer.

Our chief executive officer and chief legal officer generally attend our compensation committee meetings for a portion of the meeting. No executive officer was present or voted in the compensation committee or the board of directors' final determinations regarding the amount of any component of his own 2016 compensation package.

#### Consultant

In the fourth quarter of 2015 and again during the fourth quarter of 2016, the compensation committee re-engaged W.T Haigh and Company, or Haigh, as an independent compensation consultant for purposes of assisting the compensation committee in reviewing 2017 base salary adjustments, 2016 year-end target bonus levels, and 2016 year-end target equity compensation awards, in order to maintain the competitiveness and structure of our executives' and board of directors' compensation programs and ensure that the levels of compensation were appropriately positioned to attract and retain senior management and non-employee directors. The compensation committee originally retained Haigh in 2012 after considering a number of other national compensation consulting firms. The compensation committee selected Haigh because of its strong reputation and record in advising similarly situated biopharmaceutical and biotechnology companies in the employment markets where the Company's operations are located. Haigh is engaged by and reports directly to the compensation committee.

As part of its duties, Haigh provided the compensation committee with the following services:

- Completed a competitive analysis of our executive compensation program;
- Prepared a competitive analysis of the board of directors' compensation program, including observations and recommendations;
- Reviewed and updated our peer group for use in determining executive compensation; and
- Reviewed our 2016 proxy statement and CD&A.

During 2017, the compensation committee conducted a performance and independence assessment of Haigh with respect to Haigh's role in recommending or determining the amount and form of executive compensation during the fiscal year ended December 31, 2016, and to determine whether it would continue to serve as the compensation committee's independent advisor for 2017. Other than providing limited advice to our management regarding competitive salary data and broad-based stock plan share reserve modeling, Haigh did not provide any other services to us in 2016. The compensation committee also considered that the individual representative of Haigh who works directly with the compensation committee has no other business relationships with the board, management or the Company, Haigh's own policies on ethics, stock ownership and conflicts of interest, and the total revenue that Haigh received from us in 2016 (which was \$34,359) and how this amount compared to Haigh's 2016 total gross revenues. As a result, the compensation committee concluded that Haigh's providing services to the compensation committee during 2016 did not raise any conflict of interest.

#### Peer Group, Survey Sources and Market Benchmarking

Peer Group

In November 2015, in consultation with Haigh, the compensation committee reviewed the list of companies that should be included in the peer group used as a reference point for setting base salary and target annual incentive recommendations for 2016, which we refer to as the Early 2016 peer group. This Early 2016 peer group consisted of U.S.-headquartered, public biopharmaceutical companies that were similar in size and development stage to the Company based upon the following selection criteria:

- companies with 20 to 100 employees with a median of 50 employees;
- companies with market values between \$200 million and \$2 billion with a median of \$758.8 million;
- companies with R&D expense greater than \$50 million annually with a median of \$42.5 million; and,
- companies with accumulated deficits from operations between \$100 million and \$500 million with a median of \$375.8 million.

The compensation committee determined that the foregoing selection criteria were appropriate in selecting the Early 2016 peer group because at such time the Company had approximately 27 employees, a market value of approximately \$1.6 billion, an R&D expense forecast of approximately \$99.5 million and accumulated deficits from operations of approximately \$465.1 million. The following 20 companies were approved by the compensation committee as the Early 2016 peer group for purposes of making its recommendations for the 2016 base salary and target annual incentive compensation:

Acceleron Pharma, Inc.	Geron Corporation
Achillion Pharmaceuticals	Heron Therapeutics
Agenus Inc.	Idera Pharmaceuticals
Akebia Therapeutics	Intra-Cellular Therapies, Inc.
Biocryst Pharmaceuticals	Lexicon Pharmaceuticals
Celldex Therapeutics	Mirati Therapeutics
Concert Pharmaceuticals	Portola Pharmaceuticals
Curis, Inc.	Sage Therapeutics, Inc.
Dicerna Pharmaceuticals, Inc.	Spark Therapeutics, Inc.
Flexion Therapeutics, Inc.	Threshold Pharmaceuticals

In November 2016, in consultation with Haigh, the compensation committee reevaluated the list of companies that should be included in the peer group used as a reference point in determining the levels of December 2016 equity compensation grant recommendations and for setting base salary and target annual incentive recommendations for 2017, which we refer to as the Late 2016 peer group. Similar to the Early 2016 peer group, the Late 2016 peer group considered many of the same scope measures, location and stage of development characteristics as listed above. The selected Late 2016 peer group companies were chosen upon the following selection criteria:

- companies with 20 to 100 employees with a median of 67 employees;
- companies with market values between \$200 million to \$2 billion with a median of \$509.9 million;
- companies with R&D expense greater than \$50 million annually with a median of \$64.4 million; and,
- companies with accumulated deficits from operations between \$100 million and \$500 million with a median of \$486.2 million.

The compensation committee determined that the foregoing selection criteria were appropriate in selecting the Late 2016 peer group because at such time the Company had approximately 28 employees, a market value of approximately \$746.4 million, an R&D expense forecast of approximately \$164.5 million and accumulated

deficits from operations of approximately \$635.9 million. The following 18 companies were approved by the compensation committee as the Late 2016 peer group for purposes of making its recommendations for December 2016 equity grants and 2017 base salary and target annual incentive compensation:

Acceleron Pharma, Inc. Achillion Pharmaceuticals Aeri Pharmaceuticals Agenus Inc. Akebia Therapeutics Biocryst Pharmaceuticals Blueprint Medicine Celldex Therapeutics Concert Pharmaceuticals

#### Other Survey Sources

Curis, Inc. Flexion Therapeutics, Inc. Geron Heron Therapeutics Idera Pharmaceuticals Intra-Cellular Therapies, Inc. Portola Pharmaceuticals Synergy Pharmaceuticals Tobira Therapeutics

In making its recommendations for 2016 compensation levels, the compensation committee also reviewed Radford survey data as an additional market frame of reference in making its compensation decisions for our executives.

#### Competitive Market Posture

As a general approach, the compensation committee references approximately the 50<sup>th</sup> percentile of our peer group in setting base salary compensation. The compensation committee generally provides annual cash incentive compensation at levels well above the 50<sup>th</sup> percentile of our peer group in order to provide additional incentives for our executives to achieve our short-term corporate goals, put a greater percentage of their target cash compensation at risk and tied to achievement of our performance goals, and serves as an important incentive and retention purpose in the highly competitive Greater Boston/Cambridge, Massachusetts and national and international biopharmaceutical and biotechnology employment marketplace within which we compete for top executive talent. The December 2016 equity award levels were determined after referencing approximately the 40<sup>th</sup> percentile of our peer group, in part, to manage our dilution and burn rate. However, the compensation committee uses these peer group percentiles for general reference only and compensation levels actually approved for each individual named executive officer may vary relative to the referenced percentile based on a number of other factors that are considered in setting compensation levels such as experience in role, uniqueness of background, performance over time, critical impact of the position and expectation of future contributions to the Company's successful growth, and as a result of individual negotiations with the executive at the time of hire.

#### 2016 Compensation Decisions

#### Base Salary

Our compensation committee generally reviews base salaries in the fourth quarter of the preceding fiscal year with adjusted salaries becoming effective January 1 of the following fiscal year. In addition to considering the peer group and/or other survey market data, the compensation committee also considers Company performance; stock price appreciation; individual performance; experience; breadth of each position's role; among other factors.

In December 2015, our compensation committee recommended for approval, and the board of directors approved, 2016 base salaries for our named executive officers, as described in the table below. In making its determination, the compensation committee considered the chief executive officer's review of and recommendation for Dr. Lebel and Messrs. Belbel and Lafond as well as a competitive analysis prepared by

Haigh for all executive officers. The compensation committee believed that the 2016 base salary levels set forth below were appropriate in light of our performance during fiscal year 2015 and in order to maintain or make our named executive officer's base salaries competitive versus mid-market salary levels. Based on these considerations, the compensation committee determined that no increase to the base salaries of Dr. Cooper or Mr. Belbel were necessary, in part because their base salary levels were already at or above mid-market levels. The compensation committee determined to increase Mr. Lafond's 2016 base salary by 8.9% and Dr. Lebel's 2016 base salary by 7.9% in order to position their respective salaries more in line with the mid-market salary levels of their peer group and survey data.

	2015	2016	%
Executive Officer	Base Salary	Base Salary	Increase
Dr. Laurence James Neil Cooper	\$500,000	\$500,000	N/A
Caesar J. Belbel	\$375,000(1)	\$375,000	N/A
Dr. Francois Lebel	\$380,000	\$410,000	7.9%
Kevin G. Lafond	\$225,000	\$245,000	8.9%

#### (1) Mr. Belbel's base salary was increased to \$375,000 on June 1, 2015 in connection with his appointment to Chief Operating Officer.

#### Annual Incentive Compensation

An important component of our total compensation program is the annual cash incentive based on the achievement of annual company performance objectives, stock price appreciation as measured by the absolute increase in market capitalization on a year-over-year basis, and individual executive performance. Our compensation committee recognizes the important role that variable cash compensation plays in attracting and retaining executives and focusing executives (as well as all employees) on the achievement of key annual financial, research, clinical, business development and individual goals.

#### 2016 Annual Performance Bonus Target Levels

All of the named executive officer's target bonus amounts, as a percentage of base salary, remained unchanged from 2015. For 2016, Dr. Cooper's full target amount as a percentage of his then current base salary was 200%. Dr. Cooper's bonus target percentage was negotiated with him as part of his inducement of commencement of employment with us. Mr. Belbel's full target amount as a percentage of his then current base salary was 40% and Mr. Lafond's full target amount as a percentage of his then current base salary was 30%.

Target bonus levels in all cases are a percentage of current base annual salary and were initially established by the terms of each individual's respective employment agreements or written offer of employment, which in turn reflect the individual negotiations with the executives at the time these agreements were entered into or offers of employment accepted. The compensation committee also believes that the cash incentive opportunity should make up a larger portion of an executive's target compensation as the executive's level of responsibility increases and a greater percentage of their target total cash compensation should be at a risk of attainment of our performance goals. Therefore, the cash incentive opportunity for our chief executive officer and the chief operating officer/chief legal officer are generally greater than the cash incentive opportunity for our other executives.

The combined 2016 target cash compensation consisting of base salary and target annual bonus as set for each of our named executive officers was as follows:

Executive Officer	Total Target Cash ompensation
Dr. Laurence James Neil Cooper	\$ 1,500,000
Caesar J. Belbel	\$ 750,000
Dr. Francois Lebel	\$ 574,000
Kevin G. Lafond	\$ 318,500

#### 2016 Annual Performance Objectives

For 2016, the annual incentive bonus plan for our named executive officers and our other senior executives was determined by two variously weighted components. The following were the 2016 performance objectives:

- (i) Objectives/Operational Component (approximately 50% weighting): For 2016, the Objective Component primarily related to the ongoing development of our preclinical and clinical pipeline, and the identification and acquisition of new strategic development opportunities for the Company in immuno-oncology for the treatment of cancer and graft-versus-host-disease in collaboration with Intrexon. The compensation committee believes that these were appropriate goals for 2016 as the Company continues to focus on developing its immuno-oncology and graft-versus-host disease programs while identifying new opportunities for further development and growth through its partnerships with Intrexon, MD Anderson, Merck KGaA and others.
- (ii) Stockholder Return Component (approximately 50% weighting): For 2016, the Stockholder Return Component was established by the compensation committee based on absolute stock price appreciation of our stock on a year-over-year basis as measured by the Company's stock price at the end of 2015 and 2016. The compensation committee believes this is an appropriate goal as it reinforces alignment with shareholders and ensures that creating shareholder value significantly impacts annual variable compensation.

The year-end cash bonus award for executives was developed by multiplying the Objective Component percentage by approximately 50% of the participant's target bonus amount (predetermined percentage of base salary) together with the Stockholder Return Component percentage multiplied by approximately 50%. For 2016, achievement of the Objective Component percentage was determined by the compensation committee to be substantially met and exceeded and the Stockholder Return Component percentage was determined to be not to be met as a result of our stock price performance during 2016.

The compensation committee determined that payout levels of 70% of the targeted cash bonus were appropriate for each of Drs. Cooper and Lebel and Messrs. Belbel and Lafond as a result of the advancement of our preclinical and clinical pipeline, resulting, among other things, in the advancement of our glioblastoma program into Phase 3 pivotal development in the US and Europe; the restructuring of the terms of our collaboration agreements with Intrexon Corporation resulting in new, more favorable economics for the Company; advancement of the Company's CD19 trial, including a complete response and shortened manufacturing times, in support of key Company objectives for the year in its cellular therapy program. Additionally, in making its bonus determinations, the compensation committee considered the general discretion it is granted in recognizing that certain programs and strategic initiatives – including potential near-term positive developments in our collaboration with Intrexon and Merck Serono – were poised to contribute value to the Company shortly after the beginning of 2017.

The target short-term incentive compensation amounts for 2016, expressed as a percentage of 2016 base salaries, for each of our named executive officers, are set forth in the following table. In addition, the compensation committee recommended, and the board of directors approved the following cash bonuses for 2016 performance:

	2016 Target Bonus			2016 Actual Bonus		
Name	% Salary	\$ Amount	% Salary	\$ Amount	% Target	
Dr. Laurence James Neil Cooper	200%	\$1,000,000	140%	\$700,000	70%	
Caesar J. Belbel	100%	\$ 375,000	70%	\$262,500	70%	
Dr. Francois Lebel	40%	\$ 164,000	28%	\$114,800	70%	
Kevin G. Lafond	30%	\$ 73,500	21%	\$ 51,450	70%	

#### Long-Term Incentive Compensation

The compensation committee believes that properly structured equity compensation programs align the long-term interests of our stockholders and our employees by creating a strong, direct link between employee compensation and stock price appreciation. The compensation committee believes that if our officers own shares of our common stock with values that are significant to them, they will have an incentive to act to maximize long-term stockholder value instead of short-term gain. Further, the compensation committee believes that stock-based awards, such as stock options and restricted stock, are a significant motivator in attracting and retaining talented executives and is consistent with the practices of our peers with whom we compete for talent.

We have historically granted equity awards in the form of stock options or restricted stock to our named executive officers on the final day of the then ending fiscal year. These equity awards generally vest annually based on continued service over a three-year period and in the case of stock options have an exercise price equal to the fair market value of our common stock on the date of grant. We do not grant stock options at a discount to fair market value. The ZIOPHARM Oncology, Inc. 2012 Equity Incentive Plan as amended to date, or the 2012 Equity Incentive Plan, does not allow repricings or exchanges of stock options without stockholder approval.

In determining the aggregate size of equity grants, the compensation committee may consider, in any given year, the peer group or survey data and one or more other factors, including the internal pay equity among our named executive officers who are not the chief executive officer and ensuring that the chief executive officer's award is of a size that appropriately reflects the importance of his responsibilities for our success. The compensation committee has historically referenced equity awards at the 65<sup>th</sup> to 75<sup>th</sup> percentile level of those granted by the peer group in determining annual equity grant levels for our executive officers. However, for the reasons stated above under "Competitive Market Posture," our December 2016 equity grants to our named executive officers were positioned at approximately the 40<sup>th</sup> percentile on average.

Historically, our grants of restricted stock have typically been limited to the inducement grants to new hires or to meet specific retention needs, however, in 2015 and again in 2016 we granted restricted stock to our named executive officers. The compensation committee's primary objective in granting restricted stock instead of stock options for 2016 was to balance the overall equity holdings of our senior management team, who, other than Dr. Cooper, hold a substantial number of stock options from prior years' awards. A secondary objective was to recognize the significant stock price volatility in the biotechnology sector through the grant of a full value stock award. Further, restricted stock awards cover fewer shares than stock options that deliver a similar value and as a result, they enable us to minimize dilution to stockholders. In light of these considerations, our compensation committee determined that it was appropriate to grant annual equity awards in the form of restricted stock at higher levels than recent historical levels in order to further incentivize our executives to maximize shareholder value and align their interests with those of our stockholders.

#### Equity Grants during 2016

In December 2016, as part of our annual equity grant program, the compensation committee granted restricted stock to certain members of the Company's senior management team, including Dr. Cooper, Mr. Belbel, Mr. Lafond and Dr. Lebel. Dr. Cooper's 2016 equity award was much smaller than the off-cycle equity award granted to him in 2015 in connection with the inducement of his employment with us, and more reflective of an on-cycle and typical equity award level. The equity awards granted in December 2016 were approximate to the 40<sup>th</sup> percentile of our peer group, and believed to be at a reasonable level to continue to align our executives' interests with those of our stockholders and motivate their performance to increase our share value, while effectively managing our burn rate and dilution. For 2016, the following equity incentive grants were made to our named executive officers:

2016 Annual Perform			rants
Name	Restricted Stock		Value
Dr. Laurence James Neil Cooper	212,250	\$	1,135,538
Caesar J. Belbel	94,350	\$	504,773
Dr. Francois Lebel	94,350	\$	504,773
Kevin G. Lafond	39,300	\$	210,255

- (1) The restricted stock vests in three annual installments. Vesting of all awards is subject to continued service. These vesting schedules are designed to promote retention and encourage executives to consider the long-term stock price effects of their decisions. Under certain circumstances, the vesting of these equity awards may be accelerated in the event of a Change in Control or if the grantee's employment with us is terminated. See "Potential Payments Upon Termination or Change in Control" below.
- (2) Value realized is calculated by multiplying the number of shares underlying the restricted stock grant by the closing market price of our common stock as reported on the NASDAQ Capital Market on the date of grant. These amounts do not correspond to the actual value that may be recognized by the officers.

#### Equity Compensation Policies

Our policy is to generally make annual, new-hire and promotion equity grants as follows:

- annual equity grants are generally recommended by the compensation committee and approved by the board of directors, or approved by the
  compensation committee on a regularly scheduled meeting of the compensation committee and/or the board of directors preceding the first quarter of
  each year; and
- new-hire and promotion grants are generally approved by the compensation committee; our chief executive officer has been granted authority to
  grant stock options and other equity awards to our non-executive employees at a certain level, which grants are reviewed by the board of directors on
  a regular basis at a subsequent meeting.

In the event that the equity award is in the form of options, the exercise price is not less than the closing price of our common stock on the NASDAQ Capital Market on the grant date of the option. It is our policy not to purposely accelerate or delay the public release of material information in consideration of a pending equity grant to allow the grantee to benefit from a more favorable stock price. To avoid our release of information in close proximity to an equity grant, which may appear to be an effort to time the announcement to a grantee's benefit (even if no such benefit was intended), it is our policy for our management to make a good faith effort to advise the compensation committee whenever it is aware that material non-public information is planned to be released to the public in close proximity to the grant of equity awards.

We encourage our executive officers to hold a significant equity interest in us, but we have not set specific share ownership guidelines. Because our executive officers already have a significant equity stake in us, we have not found it necessary to adopt such guidelines. As of December 30, 2016, our executives had beneficial

ownership of our equity values equal to the following multiples of their 2016 annual base salaries, based on our stock price as of December 30, 2016:

Executive Officer	Beneficial Ownership Value as 2016 Base Salary Multiple
Dr. Laurence James Neil Cooper	12.9x
Caesar J. Belbel	2.7x
Dr. Francois Lebel	1.8x
Kevin G. Lafond	1.3x

We have a policy that prohibits our executive officers, directors and other members of management from engaging in short sales, transactions in put or call options, hedging transactions or other inherently speculative transactions with respect to our stock.

#### Agreements Providing for Change in Control and Severance Benefits

We have entered into employment agreements with Dr. Cooper and Mr. Belbel and severance agreements with Mr. Lafond and Dr. Lebel. Under the terms of these documents or otherwise, the employment of each of our named executive officers is at will (to the greatest extent permitted by applicable law), meaning that either we or the officer may terminate their employment at any time. Dr. Cooper and Mr. Belbel are eligible, under the terms of their respective employment agreements to receive severance benefits and accelerated vesting upon the termination of their employment either by us without Cause, by them for Good Reason, or due to their disability or death, either in connection with a Change in Control or not in connection with a Change in Control (each as defined below under "--Employment and Change in Control Agreements"). In addition, Mr. Belbel is eligible to receive accelerated vesting in the event of a Change in Control irrespective of whether Mr. Belbel's employment is terminated. Mr. Lafond and Dr. Lebel are eligible, under the terms of their respective severance agreements, to receive severance benefits upon the termination of their employment by us without cause, either in connection with a Change in Control or not in connection with a Change in Control. The amounts and terms and conditions of these severance rights reflect the negotiations between each of Dr. Cooper, Mr. Belbel, Mr. Lafond and Dr. Lebel and us at the time these documents were entered into, the benefits provided by our peer companies to similarly situated executives at the time they were negotiated, as well as our desire for internal pay equity among our executive officers. We believe that these existing arrangements are consistent with market practices and are critical to attracting and retaining high quality executives. We also believe the involuntary termination benefits allow Dr. Cooper, Mr. Belbel, Mr. Lafond and Dr. Lebel to focus on normal business operations rather than worrying about how business decisions that may be in our best interest will impact their own financial security. In addition, with respect to the accelerated vesting benefits upon a Change in Control provided in the employment agreements or equity grant agreements entered into with Dr. Cooper and Mr. Belbel, we believe these rights help enable Dr. Cooper and Mr. Belbel to maintain a balanced perspective in making overall business decisions during periods of uncertainty. We do not provide golden parachute excise tax gross ups.

#### 401(k) Plan

Our employees, including our named executive officers, are eligible to participate in our 401(k) plan. Our 401(k) plan is intended to qualify as a tax qualified plan under Section 401 of the Internal Revenue Code of 1986, as amended, or the Code. Our 401(k) plan provides that each participant may contribute a portion of his or her pretax compensation, up to a statutory limit, which for most employees was \$18,000 in 2016, with a larger "catch up" limit for older employees, to the 401(k) plan. Employee contributions are held and invested by the 401(k) plan's trustee. In 2016, we matched employee contributions at a rate of 100% up to 4% of an employee's base salary contributed to the plan, capped at \$2,000 matching contributions annually. We believe that this benefit is consistent with the practices of our peer companies, and therefore helps us to recruit and retain key talent at a minimal cost to us.

#### Other Benefits and Perquisites

We provide medical insurance, dental insurance, life insurance and disability insurance benefits to our U.S. employees, including our named executive officers based in the U.S. These benefits are available to all employees on the same terms and conditions and are subject to applicable laws.

Our executive officers generally do not receive any perquisites, except for limited perquisites provided on a case by case basis. In considering potential perquisites, the compensation committee reviews our cost of such benefits, as compared to the perceived value we receive. The transportation and relocation cost benefits and other perquisites provided to Dr. Cooper under the terms of his employment agreement reflect the terms of the individual negotiations with Dr. Cooper at the time the agreement was entered into. We view the overall cost of these benefits to be minimal in light of the benefit of continuing to retain Dr. Cooper's services and focus his efforts on attaining our performance objectives.

We do not sponsor any defined benefit pension plan or nonqualified deferred compensation plan or arrangement for our employees.

#### **Tax Deductibility of Executive Compensation**

Section 162(m) of the Code denies a federal income tax deduction for specified compensation in excess of \$1.0 million per year paid to the chief executive officer and the three other most highly paid executive officers, other than a company's chief financial officer, of a publicly traded corporation. Some types of compensation, including stock options and other compensation based on performance criteria that are approved in advance by stockholders, may be structured so as to be excluded from the deduction limit. To maintain flexibility in compensating our executive officers in a manner that promotes varying corporate goals, our compensation committee has not adopted a policy requiring all compensation to be deductible. Our compensation committee will continue to evaluate the effects of the executive compensation deduction limitations of Section 162(m) of the Code and to grant compensation in the future in a manner consistent with our best interests and the best interests of our stockholders.

#### **Accounting Considerations**

We account for equity compensation paid to our employees under the Financial Accounting Standards Board Accounting Standards Codification Topic 718, or ASC 718, which requires us to estimate and record an expense over the service period of the equity award. Our cash compensation is recorded as an expense over the period the bonus is earned. The accounting impact of our compensation programs are one of many factors that the compensation committee considers in determining the structure and size of our executive compensation programs.

#### **Compensation Recovery Policy**

As a public company subject to the provisions of Section 304 of the Sarbanes-Oxley Act of 2002, if we are required as a result of misconduct to restate our financial results due to our material noncompliance with any financial reporting requirements under the federal securities laws, our chief executive officer and chief financial officer may be legally required to reimburse us for any bonus or other incentive-based or equity-based compensation they receive. We have considered, and are aware that some companies, a small portion of our peer companies, have voluntarily adopted clawback policies to attempt to recover cash bonus payments to executive officers if performance objectives that led to the determination of such payments are restated or found not to have been met to the extent the compensation committee originally believed. We have not currently adopted such a policy but we will comply with the requirements of the Dodd-Frank Act and will adopt a compensation recovery policy once the SEC adopts final regulations on the subject.

#### **Risk Analysis of Our Compensation Program**

Our compensation committee has reviewed our compensation policies as generally applicable to our employees and believes that our policies do not encourage excessive or inappropriate risk taking and that the

level of risk that they do encourage is not reasonably likely to have a material adverse effect on us. As part of its assessment, the compensation committee considered, among other factors, the allocation of compensation among base salary and short- and long-term compensation, our approach to establishing company-wide and individual financial, operational and other performance targets, our bonus structure of payouts at multiple levels of performance (including maximum payout caps and payments for performance below target levels), and the nature of our key performance metrics.

#### **Compensation Committee Report**

The compensation committee has reviewed and discussed with management the Compensation Discussion and Analysis portion contained in this proxy statement. Based on this review and discussion, the compensation committee has recommended to the board of directors, and the board has agreed, that the section entitled "Compensation Discussion and Analysis" as it appears above be included in this proxy statement.

## COMPENSATION COMMITTEE

Michael Weiser, Chairman Murray Brennan Scott Tarriff

This report is not "soliciting material," is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference in any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether before or after the date hereof and irrespective of any general incorporation language in any such filing.

#### **Executive Compensation Tables**

Summary Compensation Table for Fiscal 2016

The following table sets forth information regarding compensation awarded to or earned by our named executive officers, who consist of our principal executive officer, our principal financial officer and two other executive officers, for the years covered in the table:

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$) <sup>(1)</sup>	Option Awards (\$) <sup>(1)</sup>		All Other npensation (\$)	Total (\$)
Laurence James Neil Cooper, M.D., Ph.D. <sup>(2)</sup>	2016	\$500,000	\$ 700,000	1,135,538	\$ —	\$	77,071 <sup>(3)</sup>	\$ 2,412,609
Chief Executive Officer	2015	\$328,605	\$1,657,533	10,438,610	\$ —	\$	40,611(4)	\$12,465,359
Caesar J. Belbel Chief Operating Officer, Executive Vice President, Chief Legal Officer and Secretary	2016 2015 2014	\$375,000 \$364,583 \$350,000	<ul><li>\$ 262,500</li><li>\$ 375,000</li><li>\$ 122,500</li></ul>	504,773 1,011,650 —	\$ — \$ — \$638,120	\$ \$ \$	2,713 <sup>(5)</sup> 2,685 <sup>(6)</sup> 2,342 <sup>(7)</sup>	<ul><li>\$ 1,144,986</li><li>\$ 1,753,918</li><li>\$ 1,111,204</li></ul>
Francois Lebel, M.D. <sup>(8)</sup>	2016	\$410,000	\$ 114,800	504,773	\$ —	\$	2,713(9)	\$ 1,032,286
Executive Vice President, Research and Development and Chief Medical Officer	2015	\$378,219	\$ 114,000	540,150	\$ —	\$	2,685(10)	\$ 1,035,054
Kevin G. Lafond Vice President – Finance, Chief Accounting Officer and Treasurer	2016 2015 2014	\$245,000 \$225,000 \$200,997	<ul><li>\$ 51,450</li><li>\$ 56,250</li><li>\$ 37,687</li></ul>	210,255 232,680 —	\$   — \$  — \$273,480	\$ \$ \$	2,469 <sup>(11)</sup> 2,440 <sup>(12)</sup> 2,335 <sup>(13)</sup>	<ul><li>\$ 509,174</li><li>\$ 516,370</li><li>\$ 512,499</li></ul>

(1) These amounts have been calculated in accordance with ASC Topic 718. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For a discussion of the assumptions relating to our valuations of these restricted stock awards and stock options, please see Note 3 to the financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 filed with the SEC on February 16, 2017. These amounts reflect our accounting expense for these restricted stock awards and stock options and do not correspond to the actual value that may be recognized by our named executive officers.

(2) Dr. Cooper joined us in May 2015.

- (3) Of such amount, (i) \$421 represents the dollar value of group term life insurance premiums we paid for the benefit of Dr. Cooper during 2016, (ii) \$72,915 represents taxable perquisites, including \$65,577 for housing expenses, \$6,538 for commuting expenses and \$800 for parking, (iii) \$1,735 represents "gross up" amounts reimbursed to Dr. Cooper for the payment of taxes on such perquisites, and (iv) \$2,000 represents the amount we contributed to Dr. Cooper's 401(k) pursuant to our matching program.
- (4) Of such amount, (i) \$404 represents the dollar value of group term life insurance premiums we paid for the benefit of Dr. Cooper during 2015, (ii) \$29,710 represents taxable perquisites, including \$18,000 for legal fees, \$11,320 for relocation costs and \$390 for parking, and (iii) \$8,497 represents "gross up" amounts reimbursed to Dr. Cooper for the payment of taxes on such perquisites.
- (5) Of such amount, (i) \$713 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Belbel during 2016 and (ii) \$2,000 represents the amount we contributed to Mr. Belbel's 401(k) pursuant to our matching program.
- (6) Of such amount, (i) \$685 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Belbel during 2015 and (ii) \$2,000 represents the amount we contributed to Mr. Belbel's 401(k) pursuant to our matching program.
- (7) Of such amount, (i) \$584 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Belbel during 2014 and (ii) \$1,758 represents the amount we contributed to Mr. Belbel's 401(k) pursuant to our matching program.
- (8) Dr. Lebel became an executive officer in February 2015 when he was appointed our Executive Vice President, Research and Development and Chief Medical Officer.
- (9) Of such amount, (i) \$713 represents the dollar value of group term life insurance premiums we paid for the benefit of Dr. Lebel during 2016 and (ii) \$2,000 represents the amount we contributed to Dr. Lebel's 401(k) pursuant to our matching program.

- (10) Of such amount, (i) \$685 represents the dollar value of group term life insurance premiums we paid for the benefit of Dr. Lebel during 2015 and (ii) \$2,000 represents the amount we contributed to Dr. Lebel's 401(k) pursuant to our matching program.
- (11) Of such amount, (i) \$469 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Lafond during 2016 and (ii) \$2,000 represents the amount we contributed to Mr. Lafond's 401(k) pursuant to our matching program.
- (12) Of such amount, (i) \$440 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Lafond during 2015 and (ii) \$2,000 represents the amount we contributed to Mr. Lafond's 401(k) pursuant to our matching program.
- (13) Of such amount, (i) \$335 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Lafond during 2014 and (ii)
   \$2,000 represents the amount we contributed to Mr. Lafond's 401(k) pursuant to our matching program.

#### Grants of Plan-Based Awards for Fiscal 2016

The following table sets forth information regarding grants of compensation in the form of plan-based awards made during 2016 to our named executive officers. The equity awards granted in 2016 identified in the table below are also reported in the table entitled "Outstanding Equity Awards at 2016 Fiscal Year-End":

Name	Grant Date	ted Future Payouts ion-Equity Incentiv Plan Award(s) <sup>(1)</sup> Target (\$)		All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards (\$) <sup>(2)</sup>
Laurence James Neil Cooper, M.D., Ph.D	N/A	 1,000,000				—	—
	12/30/16	 	—	212,250		_	1,135,538
Caesar J. Belbel	N/A	 375,000		—			
	12/30/16	 	—	94,350		_	504,773
Francois Lebel, M.D.	N/A	 164,000		—			
	12/30/16	 	—	94,350		_	504,773
Kevin G. Lafond	N/A	 73,500				—	—
	12/30/16	 		39,300		_	210,255

- (1) Reflects performance-based cash bonuses that our named executive officers were eligible to earn in 2016 if certain performance metrics were achieved whether pursuant to an employment agreement with us or otherwise. See "—Employment and Change in Control Agreements" for a description of our performance-based compensation arrangements with our named executive officers. For amounts actually earned and paid for 2016 performance, see "— Summary Compensation Table for Fiscal 2016" above.
- (2) The amounts shown represent compensation expense recognized for financial statement purposes under ASC Topic 718. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For a discussion of the assumptions relating to our valuations of restricted stock awards and option awards, see Note 3 to the financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 filed with the SEC on February 16, 2017. These amounts reflect our accounting expense for these restricted stock awards and do not correspond to the actual value that may be recognized by our named executive officers.



Outstanding Equity Awards at 2016 Fiscal Year-End

The following table sets forth information regarding option awards and restricted stock awards held as of December 31, 2016 by our named executive officers.

	Option Awards				Stock Awards		
		of Securities exercised Options	Option Exercise Price (\$) <sup>(1)</sup>	Option Expiration Date	Shares or Units of Stock That Have Not Vested		
Name	Exercisable (#)	Unexercisable (#)			Number (#)	Market Value (\$) <sup>(2)</sup>	
Laurence James Neil Cooper, M.D., Ph.D.					666,666 <sup>(3)</sup>	3,566,663	
		_		_	87,334 <sup>(4)</sup>	467,237	
		_		_	212,500(5)	1,135,538	
Caesar J. Belbel	200,000	_	5.17	9/6/21	_	_	
	150,000	—	4.16	12/31/22			
	76,666	_	2.30	6/27/23	_	_	
	150,000	_	4.34	12/31/23			
	116,667	58,333 <sup>(6)</sup>	5.07	12/31/24	_	_	
		_		_	33,333 <sup>(7)</sup>	178,337	
		—			43,334(8)	231,832	
		—			94,350 <sup>(9)</sup>	504,773	
Francois Lebel, M.D.	45,000	—	5.71	3/17/23		_	
	110,000		2.30	6/26/23	_		
	100,000	—	4.34	12/30/23		_	
	116,667	58,333(10)	5.07	12/30/24			
	—	—		—	43,334(11)	231,837	
	—	—		—	94,350(12)	504,773	
Kevin G. Lafond	11,667	—	2.85	12/31/19	—	—	
	25,000	—	4.77	12/31/20		—	
	20,000	—	4.16	12/31/22	—	—	
	55,000	—	2.30	6/27/23		—	
	35,000	_	4.34	12/31/23		—	
	50,000	25,000(13)	5.07	12/31/24		—	
	—	—		—	18,666(14)	99,863	
	_	—	_	_	<b>39,300</b> <sup>(15)</sup>	210,255	

(1) Each stock option was granted with an exercise price equal to the fair market value of our common stock on the grant date.

(2) Market values are calculated based on the closing market price of our common stock as reported on the NASDAQ Capital Market on December 30, 2016, the last trading day of 2016, which was \$5.35 per share.

(3) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 333,333 shares on each of May 5, 2017 and May 5, 2018.

(4) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 43,667 shares on each of December 31, 2017 and December 31, 2018.

(5) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 70,750 shares on each of December 30, 2017, December 30, 2018 and December 30, 2019.

(6) Vests with respect to 58,333 shares on December 31, 2017.

(7) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 16,667 shares on June 1, 2017 and with respect to 16,666 shares on June 1, 2018.

(8) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 21,667 shares on each of December 31, 2017 and December 31, 2018.

(9) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 31,450 shares on each of December 30, 2017, December 30, 2018 and December 30, 2019.

(10) Vests with respect to 58,333 shares on December 31, 2017.

- (11) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 21,667 shares on each of December 31, 2017 and December 31, 2018.
- (12) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 31,450 shares on each of December 30, 2017, December 30, 2018 and December 30, 2019.
- (13) Vests with respect to 25,000 shares on December 31, 2017.
- (14) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 9,333 shares on each of December 31, 2017 and December 31, 2018.
- (15) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 13,100 shares on each of December 30, 2017, December 30, 2018 and December 30, 2019.

#### Option Exercises and Stock Awards Vested during Fiscal 2016

None of our named executive officers exercised stock options during 2016.

The following table provides certain information regarding restricted stock that vested during the fiscal year ended December 31, 2016 with respect to our named executive officers.

	Stock	Awards
Name	Number of Shares Acquired on Vesting(#) <sup>(1)</sup>	Value Realized on Vesting(\$) <sup>(2)</sup>
Laurence James Neil Cooper	377,000	\$ 2,520,283
Caesar J. Belbel	38,334	244,921
Francois Lebel	21,667	115,918
Kevin G. Lafond	9,333	49,932

- (1) Each of the officers in the table above elected to have shares withheld to pay associated income taxes. The number of shares reported represents the gross number prior to withholding of such shares.
- (2) Value realized is calculated by multiplying the number of shares vested on the applicable date during 2016 by the closing market price of our common stock as reported on the NASDAQ Capital Market on such date. These amounts do not correspond to the actual value that may be recognized by the officers.

## **Employment and Change in Control Agreements**

Employment Agreement with Laurence James Neil Cooper, M.D., Ph.D.

Dr. Laurence James Neil Cooper has served as our Chief Executive Officer since May 5, 2015, the date of his written employment agreement. Dr. Cooper has an at-will employment relationship with us.

*Base Salary*. Dr. Cooper received an initial annual base salary of \$500,000, subject to review of the board of directors or the compensation committee at least annually. The board did not increase Dr. Cooper's base salary for 2017.

Annual Performance Bonus. Under his employment agreement, Dr. Cooper is eligible to receive an annual bonus based on his performance as determined by the board or the compensation committee. The target amount of the annual performance bonus is 200% of his base salary, with the actual amount to be received determined by the board or the compensation committee. Dr. Cooper is also eligible to receive an additional annual discretionary bonus in such amount as may be determined by the board. For 2016, the board adopted the compensation committee's recommendations for end-of-year cash bonuses pursuant to which Dr. Cooper received a cash bonus of \$700,000.

*Equity Incentive Grants.* Dr. Cooper is eligible under his employment agreement to receive equity awards as determined by the board in its sole discretion from time to time. Effective as of December 30, 2016, the board

adopted the compensation committee's recommendations for 2016 end-of-year awards of restricted stock and grants of stock options under our 2012 Equity Incentive Plan pursuant to which Dr. Cooper was awarded 212,250 shares of restricted common stock, which restricted stock vests in equal annual installments over three years commencing on the one-year anniversary of the grant date. Under certain circumstances, the vesting of Dr. Cooper's equity awards may be accelerated in the event of a Change in Control or if Dr. Cooper's employment with us is terminated. See "Severance Provisions" and "Potential Payments Upon Termination or Change in Control" below.

*Expense Reimbursement.* Under his agreement, Dr. Cooper is eligible for reimbursement of normal, usual and necessary expenses incurred by him in furtherance of our business and affairs, including reasonable travel and entertainment expenses and the ordinary and necessary expenses incurred in connection with his commute and relocation from Houston, Texas to the Philadelphia or Boston metropolitan area (as applicable).

*Severance Provisions.* If (i) we terminate Dr. Cooper for a reason other than death, disability or "Cause" (as that term is defined in his employment agreement), or (ii) Dr. Cooper resigns for "Good Reason" (as that term is defined in his employment agreement), Dr. Cooper will be entitled to receive continuing payments of his then-current base salary for a period of twelve months, plus a portion of the target amount of his annual performance bonus for the calendar year in which such termination occurs (which portion will be determined pro rata based on the number of days in such calendar year during which we employed Dr. Cooper), plus payment of our portion of the contributions for medical and dental insurance coverage for twelve months, subject to Dr. Cooper's execution and delivery of a general release in favor of the Company. In this situation, Dr. Cooper's stock options that have vested as of the date of termination shall remain exercisable for a period of 90 days, the restricted stock award of 1,000,000 shares granted to Dr. Cooper in connection with his employment shall vest through the next scheduled vesting date immediately following the effective date of termination, and any other unvested stock options and unvested awards of restricted stock held by Dr. Cooper shall be deemed to have expired as of the date of termination. In the case of either (i) a termination by us for a reason other than death, disability or "Cause," or (ii) a resignation for "Good Reason," in each case that occurs within 90 days prior to and in connection with a "Change in Control" (as that term is defined in his employment agreement), or within 18 months after the occurrence of a "Change in Control," all unvested stock options and unvested awards of restricted stock held by Dr. Cooper at the time that such termination occurs will be accelerated and deemed to have vested as of his employment termination date, and in lieu of the pro-rata bonus described above, Dr. Cooper will be entitled to full target amount of his annual perform

*Non-competition and Non-solicitation.* Dr. Cooper has entered into an Invention, Non-Disclosure and Non-Competition Agreement, which provides that he will not compete with us or solicit our clients or customers for a year after the termination or cessation of his employment with us, and further provides that he will not solicit our employees for one year after the termination or cessation of his employment with us.

#### Amended and Restated Employment Agreement with Caesar J. Belbel

Mr. Caesar J. Belbel has served as our Executive Vice President, Chief Legal Officer and Secretary since September 6, 2011, and as our Chief Operating Officer since June 1, 2015. We entered into an employment agreement with Mr. Belbel on September 6, 2011, which was amended and restated on June 1, 2015, in connection with his appointment as our Chief Operating Officer. Mr. Belbel has an at-will employment relationship with us.

*Base Salary*. Under his amended and restated employment agreement, Mr. Belbel received an initial annual base salary of \$375,000, subject to review of the board of directors or the compensation committee at least annually, provided that the base salary shall not be subject to reduction. The board did not increase Mr. Belbel's base salary for 2017.

Annual Performance Bonus. Under his amended and restated employment agreement, Mr. Belbel is eligible to receive an annual bonus based on his performance as determined by the board or the compensation committee.

The target amount of the annual performance bonus is 100% of his base salary, with the actual amount to be received determined by the board or the compensation committee. Mr. Belbel is also eligible to receive an additional annual discretionary bonus in such amount as may be determined by the board. For 2016, the board adopted the compensation committee's recommendations for end-of-year cash bonuses pursuant to which Mr. Belbel received a cash bonus of \$262,500.

*Equity Incentive Grants.* Mr. Belbel is eligible under his amended and restated employment agreement to receive equity awards as determined by the board in its sole discretion from time to time. Effective as of December 30, 2016, the board adopted the compensation committee's recommendations for 2016 end-of-year awards of restricted stock and grants of stock options under our 2012 Equity Incentive Plan pursuant to which Mr. Belbel was awarded 94,350 shares of restricted common stock, which restricted stock vests in equal annual installments over three years commencing on the one-year anniversary of the grant date. Under certain circumstances, the vesting of Mr. Belbel's equity awards may be accelerated if Mr. Belbel's employment with us is terminated. Upon a "Change in Control" (as that term is defined in his employment agreement), any unvested stock options and unvested awards of restricted stock held by Mr. Belbel will be accelerated and deemed to have fully vested as of the date of such occurrence, irrespective of whether such Change in Control involves a termination of Mr. Belbel without Cause or whether Mr. Belbel resigns for Good Reason. See "Severance Provisions" and "Potential Payments Upon Termination or Change in Control" below.

*Expense Reimbursement.* Under his amended and restated employment agreement, Mr. Belbel is eligible for reimbursement of normal, usual and necessary expenses incurred by him in furtherance of our business and affairs, including reasonable travel and entertainment expenses as well as reasonable legal licensing fees and related professional dues and memberships.

Severance Provisions. If (i) we terminate Mr. Belbel for a reason other than death, disability or "Cause" (as that term is defined in his employment agreement), or (ii) Mr. Belbel resigns for "Good Reason" (as that term is defined in his employment agreement), Mr. Belbel will be entitled to receive a severance payment in a single lump sum equal to 100% of his then-current annual base salary plus a portion of the target amount of his annual performance bonus for the calendar year in which such termination occurs (which portion will be determined pro rata based on the number of days in such calendar year during which we employed Mr. Belbel), and any unvested stock options and unvested awards of restricted stock held by Mr. Belbel will be accelerated and deemed to have fully vested as of the date of such occurrence, subject to Mr. Belbel's execution and delivery of a general release in favor of the Company. Any stock options that have vested or been deemed to have vested as of the date of termination will remain outstanding and exercisable until the earlier of 90 days following the date of termination, the date that they are exercised or the date on which the original term of such stock option expires.

*Non-competition and Non-solicitation.* Mr. Belbel has entered into an Invention, Non-Disclosure and Non-Competition Agreement, which provides that he will not compete with us or solicit our clients or customers for a year after the termination or cessation of his employment with us, and further provides that he will not solicit our employees for two years after the termination or cessation of his employment with us.

## Employment Relationship with Francois Lebel, M.D.

*Base Salary*. In 2016, Dr. Lebel received an annual base salary of \$410,000, which is subject to review of the board of directors or the compensation committee at least annually. The board increased Dr. Lebel's base salary to \$422,300 for 2017.

Annual Performance Bonus. Dr. Lebel is eligible to receive an annual bonus based on his performance as determined by the board or the compensation committee. For 2016, the board adopted the compensation committee's recommendations for end-of-year cash bonuses pursuant to which Dr. Lebel received a cash bonus of \$114,800.

*Equity Incentive Grants.* Effective as of December 30, 2016, the board adopted the compensation committee's recommendations for 2016 end-of-year awards of restricted stock and grants of stock options under our 2012 Equity Incentive Plan pursuant to which Dr. Lebel was awarded 94,350 shares of restricted common stock, which restricted stock vests in equal annual installments over three years commencing on the one-year anniversary of the grant date. The vesting of certain of Dr. Lebel's equity awards may be accelerated if Dr. Lebel's employment with us is terminated under certain circumstances. See "Potential Payments Upon Termination or Change in Control" below.

*Expense Reimbursement.* Dr. Lebel is eligible for reimbursement of normal, usual and necessary expenses incurred by him in furtherance of our business and affairs, including reasonable travel and entertainment expenses.

Severance Provisions. If Dr. Lebel is terminated by the Company for a reason other than for "Cause" (as that term is defined in his severance agreement), or other than for retirement, death or disability, Dr. Lebel will be entitled to receive a severance payment in a single lump sum equal to six months of his thencurrent annualized base salary, subject to Dr. Lebel's execution and delivery of a general release in favor of the Company.

## Employment Relationship with Kevin G. Lafond

*Base Salary.* In 2016, Mr. Lafond received an annual base salary of \$245,000, which is subject to review of the board of directors or the compensation committee at least annually. The board increased Mr. Lafond's base salary to \$275,000 for 2017.

Annual Performance Bonus. Mr. Lafond is eligible to receive an annual bonus based on his performance as determined by the board or the compensation committee. For 2016, the board adopted the compensation committee's recommendations for end-of-year cash bonuses pursuant to which Mr. Lafond received a cash bonus of \$51,450.

*Equity Incentive Grants.* Mr. Lafond is eligible to receive equity awards as determined by the board in its sole discretion from time to time. Effective as of December 30, 2016, the board adopted the compensation committee's recommendations for 2016 end-of-year awards of restricted stock and grants of stock options under our 2012 Equity Incentive Plan pursuant to which Mr. Lafond was awarded 39,300 shares of restricted common stock, which restricted stock vests in equal annual installments over three years commencing on the one-year anniversary of the grant date. The vesting of certain of Mr. Lafond's equity awards may be accelerated if Mr. Lafond's employment with us is terminated under certain circumstances. See "Potential Payments Upon Termination or Change in Control" below.

*Expense Reimbursement.* Mr. Lafond is eligible for reimbursement of normal, usual and necessary expenses incurred by him in furtherance of our business and affairs, including reasonable travel and entertainment expenses.

Severance Provisions. If Mr. Lafond is terminated by the Company for a reason other than for "Cause" (as that term is defined in his severance agreement), or other than for retirement, death or disability, Mr. Lafond will be entitled to receive a severance payment in a single lump sum equal to six months of his thencurrent annualized base salary, subject to Mr. Lafond's execution and delivery of a general release in favor of the Company.

## Potential Payments Upon Termination or Change in Control

The following table sets forth estimated compensation that would have been payable to each of our named executive officers as severance or upon a change in control of the Company under three alternative scenarios, assuming the termination triggering severance payments or a change in control took place on December 30, 2016.

Name and Principal Position	Cash Payment (\$) <sup>(1)</sup>	Accelerated Vesting of Stock Options (\$) <sup>(2)</sup>	Accelerated Vesting of Restricted Stock Awards (\$) <sup>(3)</sup>	Welfare Benefits (\$) <sup>(4)</sup>	Total (\$)
Laurence James Neil Cooper, M.D., Ph.D. Termination without cause or with good reason prior to change in control	1,500,000		1,783,334	25,661	3,308,995
Change in control only	1,500,000		1,705,554	25,001	
Change in control with termination without cause or good reason	1,500,000		3,387,441	25,661	4,913,102
Caesar J. Belbel	,		-,,	-,	,, -
Termination without cause or with good reason prior to change in control	750,000	16,333	914,936	18,037	1,699,306
Change in control only		16,333	914,936	_	931,269
Change in control with termination without cause or good reason	750,000	16,333	914,936	18,037	1,699,306
Francois Lebel, M.D.					
Termination without cause or with good reason prior to change in control	205,000	16,333	736,604	12,831	217,831
Change in control only	—	—		—	752,937
Change in control with termination without cause or good reason	205,000	16,333	736,604	12,831	217,831
Kevin G. Lafond					
Termination without cause or with good reason prior to change in control	122,500	—		12,831	135,331
Change in control only				—	
Change in control with termination without cause or good reason	122,500	7,000	315,473	12,831	457,804

 Amounts shown reflect payments based on salary and bonus as well as payment of estimated cost of life, disability and accident insurance benefits during the agreement period.

(2) Amounts shown represent the value of stock options upon the applicable triggering event described in the first column. The value of stock options is based on the difference between the exercise price of the options and \$5.35, which was the closing price of our common stock on the NASDAQ Capital Market on December 30, 2016, the last trading day of 2016.

(3) Amounts shown represent the value of restricted stock awards upon the applicable triggering event described in the first column, based on the closing price of our common stock on the NASDAQ Capital Market on December 30, 2016, the last trading day of 2016.

(4) Amounts shown represent the estimated cost of providing employment-related benefits during the agreement period.

# INFORMATION REGARDING THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

This section provides further information regarding the board of directors and the independence of our directors and describes key corporate governance guidelines and practices that we have adopted.

## **Independence of the Board of Directors**

The board of directors uses the definition of independence established by The NASDAQ Stock Market. Under applicable NASDAQ rules, a director qualifies as an "independent director" if, in the opinion of the board, he or she does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. The board has determined that Dr. Murray Brennan, Mr. James A. Cannon, Senator Wyche Fowler, Jr., Mr. Scott Tarriff and Dr. Michael Weiser are "independent directors," as such term is defined in NASDAQ Rule 5605(a)(2).

### **Board Leadership Structure**

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

### **Director Attendance at Board and Stockholder Meetings**

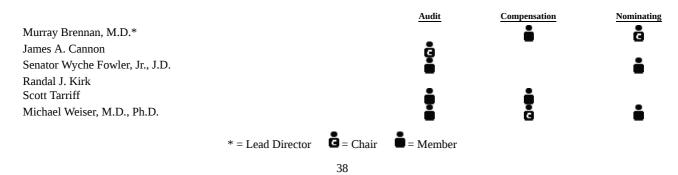
The board of directors met seven times during 2016, either in person or by teleconference. During 2016, each director attended at least 75% of the aggregate number of meetings of the board and of the committees on which he served, held during the last fiscal year or portion thereof of which he was a director or committee member.

Although we have no formal policy regarding directors' attendance at our annual stockholders meetings, we encourage such attendance by members of the board. All of the current members of the board attended our 2016 annual stockholders meeting either in person or by teleconference.

## **Board Committees**

The board of directors has established three standing committees: an audit committee, a compensation committee, and a corporate governance and nominating committee. Each committee operates under a charter that has been approved by the board. Current copies of each committee's charter are posted on the "Investors—Corporate Governance" section of our website, *www.ziopharm.com*. Our website and its contents are not incorporated into this proxy statement.

The current members of the committees are as follows:



#### Audit Committee

The current members of the audit committee are Mr. James A. Cannon, who serves as the committee's Chairman, Senator Wyche Fowler, Jr., Dr. Michael Weiser and Mr. Scott Tarriff. As set forth in the audit committee charter, the primary responsibility of the audit committee is to oversee our financial reporting processes and internal control system on behalf of the board. In that regard, the audit committee is responsible for, among other things, the appointment, compensation, retention and oversight of the work performed by the independent registered public accounting firm employed by us.

Each member of the audit committee is an "independent director," as such term is defined in NASDAQ Rule 5605(a)(2), and meets the criteria for independence set forth in Rule 10A-3(b)(1) under the Exchange Act. The board of directors has also determined that each of the audit committee members is able to read and understand fundamental financial statements and that at least one member of the audit committee has past employment experience in finance or accounting. The board has determined that at least one member of the audit committee, Mr. James A. Cannon, is an "audit committee financial expert," as that term is defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Exchange Act. Mr. Cannon's relevant experience includes his current service as the Chief Financial Officer of BBDO Worldwide, a position he has held for the past 20 years, and his past service as director of financial operations of the Omnicom Group.

The audit committee held four meetings during 2016, during which the audit committee held discussions with financial management and representatives from the independent registered public accounting firm prior to the filing of each quarterly report on Form 10-Q and annual report on Form 10-K with the SEC.

## Compensation Committee

The current members of the compensation committee are Dr. Michael Weiser, who serves as the committee's Chairman, Dr. Murray Brennan and Mr. Scott Tarriff. As set forth in the compensation committee charter, the compensation committee reviews our remuneration policies and practices and makes recommendations to the board of directors in connection with all compensation matters affecting our executive officers.

Each of Drs. Brennan and Weiser and Mr. Tarriff is an "independent director," as such term is defined in NASDAQ Rule 5605(a)(2), and meets the criteria for independence set forth in Rule 10A-3(b)(1) under the Exchange Act.

The compensation committee held two meetings during 2016.

## Corporate Governance and Nominating Committee

The current members of the corporate governance and nominating committee are Dr. Murray Brennan, who currently serves as the committee's Chairman, Senator Wyche Fowler, Jr. and Dr. Michael Weiser. As set forth in the corporate governance and nominating committee charter, the primary responsibility of the corporate governance and nominating committee is to consider and make recommendations to the board of directors concerning the appropriate size, function and needs of the board and its committees. In that regard, the corporate governance and nominating committee is, among other things, responsible for establishing criteria for membership on board, recruiting and recommending candidates to fill newly created or vacant positions on the board and reviewing any candidates recommended by stockholders. In addition, the corporate governance and nominating committee evaluates and assesses the performance of the board as a whole and its committees.

Each member of the corporate governance and nominating committee is an "independent director," as such term is defined in NASDAQ Rule 5605(a)(2), and meets the criteria for independence set forth in Rule 10A-3(b)(1) under the Exchange Act. The corporate governance and nominating committee held two meetings during 2016.

## **Director Nomination Process**

The corporate governance and nominating committee (or a subcommittee thereof) recruits and considers director candidates and presents qualified candidates to the full board of directors for consideration. There is no fixed process for identifying and evaluating potential candidates to be nominees for directors, and there is no fixed set of qualifications that must be satisfied before a candidate will be considered. Rather, the corporate governance and nominating committee has the flexibility to consider such factors as it deems appropriate. These factors may include education, general business and industry experience, ability to act on behalf of stockholders, potential concerns regarding independence or conflicts of interest and other factors relevant in evaluating board nominees. Although the corporate governance and nominating committee does not have a policy with regard to the consideration of diversity in identifying director candidates, overall board diversity of industry background and experience is generally among the factors considered. The corporate governance and nominating committee believes that a board comprised of directors with diverse skills and experiences relevant to our industry and operations will result in efficient and competent oversight of our various core competencies, which include pharmaceutical development, strategic partnering, commercialization activities, regulatory compliance, corporate finance and accounting. As such, the corporate governance and nominating committee gives consideration to the interplay of a director candidate's experience with that of other members of the board and the evolving needs of our business.

Qualified candidates will be considered without regard to race, color, religion, sex, ancestry, national origin or disability, and the corporate governance and nominating committee will consider director candidates recommended by security holders. If the corporate governance and nominating committee approves a candidate for further review following an initial screening, the corporate governance and nominating committee will establish an interview process for the candidate. Generally, the candidate will meet with at least a majority of the members of the corporate governance and nominating committee, along with our Chief Executive Officer. Contemporaneously with the interview process, the corporate governance and nominating committee will conduct a comprehensive conflicts-of-interest assessment of the candidate. The corporate governance and nominating committee will consider reports of the interviews and the conflicts-of-interest assessment to determine whether to recommend the candidate to the full board. The corporate governance and nominating committee will also take into consideration the candidate's personal attributes, including, without limitation, personal integrity, loyalty to us and concern for our success and welfare, willingness to apply sound and independent business judgment, awareness of a director's vital part in our good corporate citizenship and image, time available for meetings and consultation on our matters and willingness to assume broad, fiduciary responsibility.

Recommendations for candidates to be considered for election to the board of directors at our annual stockholders' meeting may be submitted to the corporate governance and nominating committee by our stockholders. In order to make such a recommendation, a stockholder must submit the recommendation in writing to the Chairperson of the corporate governance and nominating committee, in care of the our Secretary at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129, at least 120 days prior to the mailing date of the previous year's annual meeting proxy statement. To enable the corporate governance and nominating committee to evaluate the candidate's qualifications, stockholder recommendations must include the following information:

- The name and address of the nominating stockholder and of the director candidate;
- A representation that the nominating stockholder is a holder of record of ours entitled to vote at the current year's annual meeting;
- A description of any arrangements or understandings between the nominating stockholder and the director candidate or candidates being recommended pursuant to which the nomination or nominations are to be made by the stockholder;
- A resume detailing the educational, professional and other information necessary to determine if the nominee is qualified to become a director of ours;

- Such other information regarding each nominee proposed by such stockholder as would have been required to be included in a proxy statement filed pursuant to the proxy rules of the SEC had each nominee been nominated by the board; and
- The consent of each nominee to serve as a director of ours if so elected.

Each of the individuals nominated for re-election to the board of directors pursuant to Proposal No. 1 were approved for such nomination by the corporate governance and nominating committee.

### **Risk Management and Oversight**

Our risk management function is overseen by our principal financial officer and Chief Legal Officer, each of whom reports directly to the Chief Executive Officer. Material risks are identified and prioritized by management, and prioritized risks are referred to a board committee or the full board for oversight. For example, strategic risks are referred to the full board while financial risks are referred to the audit committee. The board reviews information regarding our credit, liquidity, and operations, as well as the risks associated with each.

## **Communicating with Directors**

We have established means for stockholders and others to communicate with the board of directors. If a stockholder wishes to address a matter regarding our financial statements, accounting practices or internal controls, the matter should be submitted in writing addressed to the Chairperson of the audit committee in care of the Secretary at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129. If the matter relates to our governance practices, business ethics or corporate conduct, it should be submitted in writing addressed to the Chairperson of the corporate governance and nominating committee in care of the principal financial officer at our principal executive officers. If a stockholder is unsure where to direct a communication, the stockholder may direct it in writing to the Chairperson of the audit committee, or to any one of our independent directors, in care of the principal financial officer at our principal executive officers. All of these stockholder communications will be forwarded by the principal financial officer to the addressee.

## **Compensation Committee Interlocks and Insider Participation**

The current members of the compensation committee are Dr. Murray Brennan, Dr. Michael Weiser and Mr. Scott Tarriff. No member of the compensation committee has ever been an officer or employee of the Company or any subsidiary of ours and no member of the compensation committee had any relationship with us during 2016 requiring disclosure under Item 404 of Regulation S-K of the SEC.

None of our executive officers has served as a director or member of the compensation committee (or other committee serving an equivalent function) of any other entity that has an executive officer serving as a member of our board of directors or our compensation committee.

### **Code of Ethics and Business Conduct**

The board of directors adopted a Code of Ethics and Business Conduct to be applicable to all officers, directors and employees. The Code of Ethics and Business Conduct is intended to be designed to deter wrong-doing and promote honest and ethical behavior, full, fair, timely, accurate and understandable disclosure, and compliance with applicable laws. In addition to provisions that are applicable to officers, directors and employees generally, the Code of Ethics and Business Conduct contains provisions that are specifically applicable to our Chief Executive Officer and senior financial officer(s). The Code of Ethics and Business Conduct is available on our website at *www.ziopharm.com* and a copy may be obtained without charge upon written request to our Secretary at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129. Our website and its contents are not incorporated into this proxy statement.

## **Audit Committee Report**

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

Specifically, the audit committee has discussed with our independent registered public accounting firm the matters required to be discussed by Auditing Standard No. 1301, as adopted by the Public Company Accounting Oversight Board.

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

The audit committee, based on the review and discussions described above with management and our independent registered public accounting firm, has recommended to the board of directors that the audited financial statements for the fiscal year ended December 31, 2016 be included in our Annual Report on Form 10-K for such fiscal year for filing with the Securities and Exchange Commission.

## AUDIT COMMITTEE

James A. Cannon, Chairman Wyche Fowler, Jr. Michael Weiser Scott Tarriff

This report is not "soliciting material," is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference in any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether before or after the date hereof and irrespective of any general incorporation language in any such filing.



## DIRECTOR COMPENSATION

# **Compensatory Arrangements with Outside Directors**

Under our director compensation policy, each non-employee director is entitled to the following:

- an annual retainer fee of \$40,000 for service on the board; and
- additional annual retainer fees for board committee service as follows:

	Chair	Other Member		
Audit Committee	\$15,000	\$	8,000	
Compensation Committee	12,500		7,000	
Corporate Governance and Nominating Committee	8,500		5,000	

The non-executive Lead Director also receives further annualized cash compensation of \$15,000. All cash retainers are paid on a quarterly basis in arrears to non-employee directors who continue to serve as members of the board on the last business day of each calendar quarter.

At the end of each calendar year, each non-employee director receives annual equity incentive grants comprised of restricted shares of our common stock and/or options to purchase shares of our common stock. The number of restricted shares and options comprising each grant is determined by the board prior to the end of each calendar year upon recommendation from the compensation committee. On December 30, 2016, the board determined to make an equity incentive grant to each non-employee director of, at each director's election, either options to purchase 25,000 shares of our common stock with an exercise price of \$5.35 per share, the fair market value of our common stock on the grant date, or such number of restricted shares of our common stock with a value equal to the foregoing options to purchase 25,000 shares of our common stock using the Black-Scholes methodology. The aggregate size of the 2016 annual equity incentive grants represented a decrease from the equity incentive grants made in 2015. Mr. Tarriff elected to receive an option to purchase 25,000 shares of our common stock. Drs. Brennan and Weiser, Senator Fowler and Messrs. Cannon and Kirk each elected to receive 17,204 shares of restricted stock. The stock options vest on the one-year anniversary of the grant date and the restricted stock is subject to transfer and forfeiture restrictions that lapse on the one-year anniversary of the grant date.

In addition, effective upon a director's initial election to the board, he or she receives, at the director's option, either an option to purchase 25,000 shares of our common stock (pro rated for partial years of service) with an exercise price equal to the fair market value of the common stock on the grant date, or such number of restricted shares of our common stock with a value equal to the foregoing option to purchase 25,000 shares of our common stock (or such pro rated amount) using the Black-Scholes methodology. The restricted stock are subject to transfer and forfeiture restrictions that lapse on December 31 of the year in which such restricted stock is granted and the stock option vests according to the same schedule.

As set forth in its written charter, the compensation committee annually reviews director compensation practices and recommends any changes for adoption by the full board. As such, the director compensation described above is subject to change at the discretion of the board.

# 2016 Non-Employee Director Compensation

The following table provides information regarding non-employee director compensation for 2016.

Name	Fees Earned or Paid in Cash (\$)	Option Awards <sup>(1)</sup> (\$)	Stock Awards <sup>(1)</sup> (\$)	Total (\$)
Murray Brennan, M.D.	\$ 70,500	\$ —	\$92,041	\$162,541
James A. Cannon	\$ 55,000	—	\$92,041	\$147,041
Wyche Fowler, Jr.	\$ 53,000		\$92,041	\$145,041
Randal J. Kirk	\$ 40,000	—	\$92,041	\$132,041
Michael Weiser, M.D., Ph.D.	\$ 65,500		\$92,041	\$157,541
Scott Tarriff	\$ 55,000	\$91,920	\$ —	\$146,920

- (1) The amounts shown represent compensation expense recognized for financial statement purposes under ASC Topic 718. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For a discussion of the assumptions relating to our valuations of these restricted stock awards and stock options, please see Note 3 to the financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 filed with the SEC on February 16, 2016. These amounts reflect our accounting expense for these restricted stock awards and stock options and do not correspond to the actual value that may be recognized by the directors. As of December 31, 2016:
  - Dr. Brennan held options to purchase 202,500 shares at a weighted average exercise price of \$4.09 per share, of which 202,500 shares had vested. In addition, Dr. Brennan held 45,807 shares of restricted stock, of which 28,603 shares have had transfer and forfeiture restrictions lapse.
  - Mr. Cannon held options to purchase 102,500 shares at a weighted average exercise price of \$3.69 per share, of which 102,500 shares had vested. In addition, Mr. Cannon held 157,685 shares of restricted stock, of which 140,481 shares have had transfer and forfeiture restrictions lapse.
  - Senator Fowler held options to purchase 127,500 shares at a weighted average exercise price of \$3.83 per share, of which 127,500 shares had vested. In addition, Senator Fowler held 132,544 shares of restricted stock, of which 115,340 shares have had transfer and forfeiture restrictions lapse.
  - Mr. Kirk held options to purchase 25,000 shares at an exercise price of \$5.21 per share, of which 25,000 shares had vested. In addition, Mr. Kirk held 139,513 shares of restricted stock, of which 122,309 shares have had transfer and forfeiture restrictions lapse.
  - Dr. Weiser held options to purchase 152,500 shares at a weighted average exercise price of \$4.03 per share, of which 152,500 shares had vested. In addition, Dr. Weiser held 108,254 shares of restricted stock, of which 91,050 shares have had transfer and forfeiture restrictions lapse.
  - Mr. Tarriff held options to purchase 65,000 shares at a weighted average exercise price of \$7.17 per share, of which 40,000 shares had vested. In addition, Mr. Tarriff holds 4,186 shares of restricted stock, of which 4,186 shares have had transfer and forfeiture restrictions lapse.

# LIMITATION OF LIABILITY AND INDEMNIFICATION

Our charter limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware corporation law. The charter provides that no director will have personal liability to us or to stockholders for monetary damages for breach of fiduciary duty as a director. These provisions do not, however, eliminate or limit the liability of any of the directors for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- voting or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- any transaction from which the director derived an improper personal benefit.

Any amendment, repeal or modification of these provisions will not adversely affect any right or protection of a director in respect of any act or omission occurring prior to such amendment, repeal or modification. If the Delaware corporation law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of the directors will be further limited to the greatest extent permitted by the Delaware corporation law.

The charter also provides that we must indemnify directors and officers in certain circumstances. We believe this provision is important in attracting and retaining qualified individuals to serve as directors and executive officers.

We maintain director and officer insurance providing for indemnification of our directors and officers for certain liabilities, including certain liabilities under the Securities Act. We also maintain a general liability insurance policy that covers certain liabilities of directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. We have also entered into indemnification agreements with each of our directors and named executive officers.

There is no pending litigation or proceeding involving any director or executive officer to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

# CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The following discussion relates to certain transactions that involve both the Company and one of our executive officers, directors, director nominees or five-percent stockholders, each of whom we refer to as a "related party." For purposes of this discussion, a "related-party transaction" is a transaction, arrangement or relationship:

- in which we participate;
- that involves an amount in excess of \$120,000; and
- in which a related party has a direct or indirect material interest.

## **Related-Party Transaction Policy**

In April 2012, the board of directors adopted our initial written policies and procedures for the review of any related-party transaction. If a related party proposes to enter into a related-party transaction, the related party must report the proposed related-party transaction to the chief legal officer. The policy calls for the proposed related-party transaction to be reviewed and, if deemed appropriate, approved by the audit committee. Whenever practicable, the review and approval by the audit committee will occur prior to entry into the related-party transaction. If advance review and approval is not practicable, the audit committee will review, and, in its discretion, may ratify the related-party transaction. The policy also permits the chair of the audit committee to review and, if deemed appropriate, approve proposed related-party transactions that arise between audit committee meetings, subject to ratification by the audit committee at its next meeting. Any related-party transactions that are ongoing in nature will be reviewed annually.

A related-party transaction reviewed under the policy will be considered approved or ratified if it is authorized by the committee after full disclosure of the related party's interest in the transaction. As appropriate for the circumstances, the committee will review and consider:

- the related party's interest in the related-party transaction;
- the approximate dollar value of the amount involved in the related-party transaction;
- the approximate dollar value of the amount of the related party's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related-party transaction or the related party in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

The audit committee may approve or ratify the transaction only if the audit committee determines that, under all of the circumstances, the transaction is in or is not inconsistent with our best interests. The audit committee may impose any conditions on the related-party transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC's related-party transaction disclosure rule, the board has determined that the following transactions do not create a material direct or indirect interest on behalf of related parties and, therefore, are not related-party transactions for purposes of the policy:

• interests arising solely from the related party's position as an executive officer of another entity (whether or not the person is also a director of such entity) that is a participant in the transaction, where



(a) the related party and all other related parties own in the aggregate less than a 10% equity interest in such entity, (b) the related party and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction, and (c) the amount involved in the transaction is less than the greater of \$200,000 and 5% of the annual gross revenues of the company receiving payment in the transaction; and

a transaction that is specifically contemplated by provisions of our charter or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by the compensation committee.

## **Certain Related-Party Transactions**

## Transactions with MD Anderson

On January 13, 2015, we, together with Intrexon, entered into a license agreement with MD Anderson, which we refer to as the MD Anderson License. Pursuant to the MD Anderson License, we and Intrexon hold an exclusive, worldwide license to certain technologies owned and licensed by MD Anderson including technologies relating to novel CAR-T cell therapies arising from the laboratory of Laurence Cooper, M.D., Ph.D., our Chief Executive Officer and was formerly a tenured professor of pediatrics at MD Anderson and now currently a visiting scientist under the institution's policies, as well as either co-exclusive or non-exclusive licenses under certain related technologies.

Pursuant to the terms of the MD Anderson License, MD Anderson received consideration of \$50 million in shares of our common stock (or 10,124,561 shares) and \$50 million in shares of Intrexon's common stock, in each case based on a trailing 20-day volume-weighted average of the closing price of our and Intrexon's common stock, respectively, ending on the date prior to the announcement of the entry into the MD Anderson License, collectively referred to as the License Shares. On January 9, 2015, in order to induce MD Anderson to enter into the MD Anderson License on an accelerated schedule, we and Intrexon entered into our previously disclosed letter agreement, or the MD Anderson Letter Agreement, pursuant to which MD Anderson received consideration of \$7.5 million in shares of our common stock (or 1,597,602 shares) and \$7.5 million in shares of Intrexon's common stock, in each case based on a trailing 20-day volume-weighted average of the closing price of our and Intrexon's common stock, respectively, ending on the date prior to the MD Anderson Letter Agreement, pursuant to which MD Anderson received consideration of \$7.5 million in shares of our common stock (or 1,597,602 shares) and \$7.5 million in shares of Intrexon's common stock, in each case based on a trailing 20-day volume-weighted average of the closing price of our and Intrexon's common stock, respectively, ending on the date prior to the MD Anderson Letter Agreement, collectively referred to as the Incentive Shares, if the MD Anderson License was entered into on or prior to 8:00 am Pacific time on January 14, 2015. In partial consideration for and in furtherance of the foregoing transactions, we also entered into a Securities Issuance Agreement, which we refer to as the License Shares Securities Issuance Agreement, another Securities Issuance Agreement, which we refer to as the MD Anderson Registration Rights Agreement, with MD Anderson on January 13, 2015, each of which have been previously disclosed.

MD Anderson had a pre-existing policy of splitting the net proceeds of certain transactions involving the transfer of intellectual property of MD Anderson with the creators of such intellectual property. In accordance with such policy, upon the sale by MD Anderson of all or any portion of the License Shares or the Incentive Shares, a portion of the proceeds of such sale will be first used to pay third party contractual commitments and expenses of MD Anderson, and the remainder of such proceeds shall be allocated 50% to MD Anderson and 50% to the creators of the intellectual property underlying the MD Anderson License, which we refer to as the Creators, one of whom is our Chief Executive Officer, Dr. Cooper. Pursuant to a memorandum among MD Anderson and the Creators dated March 13, 2015, Dr. Cooper is entitled to approximately 64.8% of such aggregate proceeds allocated to the Creators. Pursuant to an Investment Management Services Agreement with MD Anderson, the University of Texas Investment Management Co., or UTIMCO, an institutional investment advisor, is authorized to exercise investment discretion and voting power with respect to such shares on behalf of MD Anderson. Accordingly, Dr. Cooper has no voting power, investment power or control over if or when the

License Shares or the Incentive Shares will be sold, if ever, or the timing of the receipt of the proceeds, if any, from the sale of such shares.

#### Transactions with Ares Trading

On March 27, 2015, we, together with Intrexon, entered into a worldwide License and Collaboration Agreement with ARES Trading S.A., a company within the pharmaceutical business of Merck KGaA, Darmstadt, Germany, through which the parties established a collaboration for the research and development and commercialization of products for the prophylactic, therapeutic, palliative or diagnostic use for cancer in humans. Pursuant to the agreement and the Second Amendment to Exclusive Channel Partner Agreement with Intrexon described below, we and Intrexon will receive an aggregate of \$115 million in cash in upfront consideration, potential payments for development and commercial milestones on products produced under the agreement (up to \$826 million of such milestones for the first two products), and potential royalty payments based on net sales of products produced under the agreement.

## Transactions with Intrexon

On January 12, 2011, Mr. Randal Kirk was appointed to our board of directors and is currently one of our principal stockholders, beneficially owning approximately 7.4% of our common stock as of the Record Date. Mr. Kirk serves as Chief Executive Officer of Intrexon, with which we entered into an Exclusive Channel Partner Agreement, or the Channel Agreement, on January 6, 2011. In partial consideration for entering into the Channel Agreement, we also entered into a Stock Purchase Agreement and Registration Rights Agreement with Intrexon on January 6, 2011.

### Channel Agreement

The Channel Agreement governs a "channel partnering" arrangement in which we will use Intrexon's technology directed towards in vivo expression of effectors in connection with the development of clinical-stage product candidates and generally to research, develop and commercialize products, in each case in which DNA is administered to humans for expression of anti-cancer effectors for the purpose of treatment or prophylaxis of cancer. The Channel Agreement grants us a worldwide license to use specified patents and other intellectual property of Intrexon in connection with the research, development, use, importing, manufacture, sale, and offer for sale of products involving DNA administered to humans for expression of anti-cancer effectors for the purpose of treatment or prophylaxis of cancer, or the ZIOPHARM Products. Such license is exclusive with respect to any clinical development, selling, offering for sale or other commercialization of ZIOPHARM Products, and otherwise is non-exclusive. Subject to limited exceptions, we may not sublicense the rights described without Intrexon's written consent.

Subject to certain expense allocations and other offsets provided in the Channel Agreement, we were originally required pay to Intrexon 50% of the cumulative net quarterly profits derived from the sale of ZIOPHARM Products, calculated on a ZIOPHARM Product-by- ZIOPHARM Product basis, and are now required to pay to Intrexon 20% (which such percentage was originally 50%) of such net quarterly profits per the terms of an amendment described below. We have also agreed to pay Intrexon 50% of quarterly revenue obtained from a sublicensor in the event of a sublicensing arrangement.

During the fiscal year ended December 31, 2012, we paid Intrexon approximately \$11.4 million, of which \$6.6 million was for preclinical and clinical research services already incurred and the remaining \$4.8 million was for services expected to be incurred within a year. This amount was included as part of prepaid expenses and other current assets on the balance sheet as of December 31, 2012. During the fiscal year ended December 31, 2013, we expensed \$7.8 million for services performed by Intrexon, of which \$4.8 million was applied to the prepaid balance in other current assets, \$2.4 million was paid to Intrexon and \$0.6 million was recorded in accrued expenses. As of December 31, 2013, the prepaid balance in other current assets on the accompanying

balance sheet has been reduced to \$0. During the fiscal year ended December 31, 2014, we expensed \$12.0 million for services performed by Intrexon, of which \$10.1 million was paid to Intrexon and \$1.9 million was recorded in accounts payable and accrued expenses. As of December 31, 2014, the prepaid balance in other current assets on the accompanying balance sheet has been reduced to \$0.

On March 27, 2015, we and Intrexon entered into a Second Amendment to Exclusive Channel Partner Agreement amending the Channel Agreement. The amendment modified the scope of the parties' collaboration under the Channel Agreement in connection with the license and collaboration agreement with Ares Trading, described above. The amendment provided that Intrexon will pay to the Company fifty percent of all payments that Intrexon receives for upfronts, milestones and royalties under the Ares Trading License and Collaboration Agreement, described above.

On June 29, 2016, we and Intrexon entered into a Third Amendment to Exclusive Channel Partner Agreement, or the Third Amendment, further amending the Channel Agreement. The Third Amendment reduced the royalty percentage that we will pay Intrexon on a quarterly basis from fifty percent to twenty percent of net profits derived in that quarter from the sale of products developed under the Channel Agreement, calculated on a ZIOPHARM Product-by-ZIOPHARM Product basis, subject to certain expense allocations and other offsets provided in the Channel Agreement.

## Channel Agreement for Graft-Versus-Host Disease

On September 28, 2015, we entered into a new Exclusive Channel Collaboration with Intrexon to develop treatments for GvHD, a major complication of allogeneic HSCT, which significantly impairs the quality of life and survival of many recipients. The agreement grants the Company a worldwide license to use specified patents and other intellectual property of Intrexon in connection with the research, development, use, importing, manufacture, sale, and offer for sale of products developed under the agreement, or the Products. Such license is exclusive with respect to any clinical development, selling, offering for sale or other commercialization of the Products, and otherwise is non-exclusive. Subject to limited exceptions, we may not sublicense the rights described without Intrexon's written consent.

Under the agreement, and subject to certain exceptions, we are responsible for, among other things, the performance of the collaboration including development, commercialization and certain aspects of manufacturing of the Products. Among other things, Intrexon is responsible for the costs of establishing manufacturing capabilities and facilities for the bulk manufacture of the Products, certain other aspects of manufacturing, costs of discovery-stage research with respect to platform improvements and costs of filing, prosecution and maintenance of Intrexon's patents.

We paid Intrexon a technology access fee of \$10 million in cash and will reimburse Intrexon for all research and development costs. Subject to certain expense allocations and other offsets provided in the agreement, the agreement also provides for equal sharing of the profits derived from the sale of the Products.

On June 29, 2016, we and Intrexon entered into an amendment to the Exclusive Channel Collaboration Agreement, or the Collaboration Amendment. The Collaboration Amendment reduced the royalty percentage that we will pay Intrexon on a quarterly basis from fifty percent to twenty percent of net profits derived in that quarter from the sale of products developed under the GvHD collaboration program, subject to certain expense allocations and other offsets provided in the Exclusive Channel Collaboration Agreement.

### Preferred Shares Securities Issuance Agreement

On June 29, 2016, in consideration for the execution and delivery of the Third Amendment and the Collaboration Amendment, we and Intrexon entered into a Securities Issuance Agreement, or the Preferred Shares Securities Issuance Agreement, pursuant to which we agreed to issue and sell 100,000 shares of our newly

designated Series 1 Preferred Stock. Each share of Series 1 Preferred Stock, which we refer to as the Preferred Shares, has a stated value of \$1,200, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other recapitalization with respect to the Preferred Shares. As the holder of the Preferred Shares, Intrexon receives a monthly dividend, payable in additional Preferred Shares, equal to \$12.00 per Preferred Share held by Intrexon per month divided by the stated value of the Preferred Shares, rounded down to the nearest whole share. The rights, preferences, privileges, restrictions and other matters relating to the Preferred Shares are set forth in a Certificate of Designation, Preferences and Rights of Series 1 Preferred Stock which we filed with the Secretary of State of the State of Delaware on June 29, 2016.

We and Intrexon agreed pursuant to the terms of the Preferred Shares Securities Issuance Agreement that the holders of common stock issued upon the conversion of the Issued Shares shall be entitled to piggy-back registration rights with respect to any common stock registered by us following such conversion.

## Stock Purchase Agreement and Registration Rights Agreement

On January 12, 2011, and pursuant to the Stock Purchase Agreement, Intrexon purchased 2,426,235 shares of our common stock in a private placement for a total purchase price of \$11,645,928. We simultaneously issued to Intrexon for no additional consideration an additional 3,636,926 shares of our common stock. Under the terms of the Stock Purchase Agreement, we agreed to issue to Intrexon an additional 3,636,926 shares of our common stock for no additional consideration under certain conditions upon dosing of the first patient in a ZIOPHARM-conducted U.S. Phase 2 clinical trial of a product candidate created, produced or developed by us using Intrexon technology. These shares were issued on November 7, 2012, and when issued, the purchase price for such shares was equal to the \$0.001 par value of such shares, which price was deemed paid in partial consideration for the execution and delivery of the Channel Agreement, in accordance with the terms of the Stock Purchase Agreement. Pursuant to the Registration Rights Agreement, on May 18, 2011 we filed a registration statement with the SEC registering the resale of the shares that we have issued or may issue to Intrexon under the Stock Purchase Agreement.

Also under the Stock Purchase Agreement, Intrexon has agreed that, subject to certain conditions and restrictions and limitations, it will purchase our securities in conjunction with "qualified" securities offerings that we conduct while the Channel Agreement remains in effect. In conjunction with a particular qualified offering, Intrexon has committed to purchase up to 19.99% of the securities offering and sold therein (exclusive of Intrexon's purchase) if requested to do so by us. However, Intrexon will not be obligated to purchase securities in a "qualified" securities offering unless we are then in substantial compliance with our obligations under the Channel Agreement and, with respect to a "qualified" securities offering that is completed following January 6, 2012, we confirm our intent that 40% of the offering's net proceeds shall have been spent, or in the next year will be spent, by us under the Channel Agreement. In the case of a "qualified" securities offering that is completed after January 6, 2013, Intrexon's purchase commitment is further limited to an amount equal to one-half of the proceeds spent or to be spent by us under the Channel Agreement. Intrexon's aggregate purchase commitment for all future qualified offerings was initially capped at \$50.0 million. We and Intrexon subsequently amended the Stock Purchase Agreement to clarify that gross proceeds from the sale of our securities to Intrexon in a qualified offering will apply against Intrexon's \$50.0 million purchase commitment regardless of whether Intrexon participates voluntarily or at our request. Intrexon's aggregate commitment under the Stock Purchase Agreement was subsequently reduced from \$50.0 million to \$43.5 million pursuant to the Second Amendment to Exclusive Channel Partner Agreement that the parties entered into on March 27, 2015 described above. As of the date of the amendment, Intrexon had purchased the full \$43.5 million of our common stock and has satisfied its purchase commitment to us in full.

#### Public Offering Participation

In February 2011, we completed a registered public offering of common stock in which Intrexon purchased 1,190,000 shares at a purchase price of \$5.57 per share, for an aggregate purchase price of approximately

\$10.6 million. In February 2012, we completed a registered public offering of common stock in which Intrexon purchased 1,923,075 shares at a purchase price of \$5.20 per share, for an aggregate purchase price of approximately \$10.0 million. In October 2013, we completed a registered public offering of common stock in which Intrexon purchased 2,857,143 shares at a purchase price of \$3.50 per share, for an aggregate purchase price of approximately \$10.0 million. In February 2015, we completed a registered public offering of common stock in which Intrexon purchased 1,440,000 shares at a purchase price of \$8.75 per share, for an aggregate purchase price of \$8.75 per share, for an aggregate purchase price of \$12.2 million. As a result of these purchases, and following the entry into the Second Amendment to Exclusive Channel Partner Agreement in March 2015, Intrexon's equity purchase commitment under the Stock Purchase Agreement has been satisfied in full.

## **Employment and Indemnification Agreements**

# **Employment Agreements**

We have entered into employment agreements with our certain of our executive officers. See "*Executive Compensation* — *Employment and Change in Control Agreements*."

## Stock Option Grants to Executive Officers and Directors

We have granted stock options to our executive officers and our non-employee directors. See "Executive Compensation" and "Director Compensation."

## Indemnification Agreements with Executive Officers and Directors

We have entered into an indemnification agreement with each of our directors and executive officers. These indemnification agreements and our certificate of incorporation and our bylaws indemnify each of our directors and officers to the fullest extent permitted by Delaware General Corporation Law. See *"Limitation of Liability and Indemnification."* 

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# STOCK OWNERSHIP

# **Directors, Officers and Principal Stockholders**

The following table sets forth information with respect to the beneficial ownership of common stock as of April 18, 2017 for:

- each beneficial owner of more than five percent of our outstanding common stock;
- each of the directors and named executive officers; and
- all of the directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities, or have the right to acquire such powers within 60 days. Common stock subject to options that are currently exercisable or exercisable within 60 days of April 18, 2017 are deemed to be outstanding and beneficially owned by the person holding the options. These shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other person. Except as otherwise indicated, all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to applicable community property laws. Percentage ownership calculations are based on 132,387,661 shares outstanding as of April 18, 2017. Addresses of individuals are in care of ZIOPHARM Oncology, Inc., One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129.

	Outstanding Shares	Right to Acquire Within 60 Days of	Total Shares	_
Name and Address of Beneficial Owner	Beneficially Owned	April 18, 2017	Beneficially Owned	Percentage
5% Stockholders:				
BlackRock, Inc. <sup>(1)</sup>	7,449,837		7,449,837	5.6
The Vanguard Group <sup>(2)</sup>	6,913,859	_	6,913,859	5.2
Directors and Executive Officers:				
Randal J. Kirk	9,709,607 <sup>(3)</sup>	25,000	9,734,607	7.4
Murray Brennan	53,114	202,500	255,614	*
James A. Cannon	352,502	102,500	455,002	*
Wyche Fowler, Jr.	140,850	127,500	268,350	*
Michael Weiser	203,670	152,500	356,170	*
Scott Tarriff	4,186	40,000	44,186	*
Laurence James Neil Cooper, M.D., Ph.D.	1,209,291	—	1,209,291	*
Caesar J. Belbel	190,217	693,334	883,551	*
Francois Lebel, M.D.	137,683	371,667	509,350	*
Kevin G. Lafond	57,967	196,667	254,634	*
All directors and executive officers as a group (10 persons)	12,059,087	1,911,668	13,970,755	10.4

\* Less than one percent.

(1) Based solely on the Schedule 13G filed with the SEC on January 30, 2017, BlackRock, Inc., as a parent holding company, is the beneficial owner of 7,449,837 shares and has sole voting power with respect to 7,211,988 shares and sole investment power with respect to 7,449,837 shares. Aggregate beneficial ownership reported by BlackRock, Inc. is on a consolidated basis and includes beneficial ownership of its subsidiaries Blackrock (Netherlands) B.V., BlackRock Advisors, LLC, BlackRock Asset Management

Canada Limited, BlackRock Asset Management Ireland Limited, BlackRock Asset Management Schweiz AG, BlackRock Financial Management, Inc., BlackRock Fund Advisors, BlackRock Institutional Trust Company, N.A., BlackRock Investment Management (Australia) Limited, BlackRock Investment Management (UK) Ltd., BlackRock Investment Management, LLC, BlackRock Japan Co Ltd and FutureAdvisor, Inc.

- (2) Based solely on the Schedule 13G filed with the SEC on February 10, 2017, The Vanguard Group, Inc., an investment adviser, is the beneficial owner of 6,913,859 shares and has sole voting power with respect to 239,047 shares, shared voting power with respect to 6,295 shares, sole investment power with respect to 6,674,429 shares and shared investment power with respect to 239,430 shares. Vanguard Fiduciary Trust Company, or VFTC, a wholly-owned subsidiary of The Vanguard Group, Inc., is the beneficial owner of 233,135 shares as a result of its serving as investment manager of collective trust accounts. VFTC directs the voting power of these shares. Vanguard Investment manager of Australian investment offerings. VIA directs the voting power of 12,207 shares as a result of its serving as investment manager of functions. VIA directs the voting power of these shares.
- (3) Consists of (i) 139,513 shares over which Randal J. Kirk has sole voting and dispositive power and (ii) 9,570,094 shares held by the following entities (collectively, the "Entities"): R.J. Kirk DOT (3,479,685 shares), JPK 2008 (23,349 shares), MGK 2008 (23,504 shares), ZSK 2008 (40,954 shares), Lotus (240 shares), JPK 2009 (337,333 shares), MGK 2009 (358,386 shares), ZSK 2009 (34,318 shares), ADC 2010 (29,066 shares), MGK 2011 (154,181 shares), JPK 2012 (138,975 shares), Kellie L. Banks LTT (61,262 shares), Kapital Joe (2,359,608 shares), Mascara Kaboom (889,513 shares), Staff 2001 (53,245 shares), Sr. Staff (9,537 shares), Senior Staff 2007 (352,477 shares), Staff 2007 (176,238 shares), Incentive 2007 (58,746 shares), Senior Staff 2008 (395,791 shares), Staff 2009 (173,111 shares), Incentive 2009 (86,556 shares), Staff 2010 (222,680 shares) and Incentive 2010 (111,339 shares). Mr. Kirk could be deemed to have indirect beneficial ownership of the shares directly beneficially owned by the Entities.

## Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers, as well as stockholders beneficially owning more than ten percent of the outstanding common stock, to file with the SEC initial reports of ownership and reports of changes in ownership with respect to common stock. All of these reporting persons are required by SEC regulations to furnish us with copies of all reports they file with the SEC pursuant to Section 16(a).

Based solely on our review of the copies of such forms received by us and written representations of our directors and executive officers received by us, we believe each reporting person filed on a timely basis all of the reports required to be filed pursuant to Section 16(a) in 2016, with the exception of one Form 4 report reflecting the net exercise of an option was filed late by Senator Fowler on April 12, 2016.

# INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FEES AND OTHER MATTERS

# Audit and Related Fees

RSM US LLP served as our independent registered public accounting firm for the years ended December 31, 2016 and 2015. The following table presents the collective fees billed by RSM US LLP during such years. These audit fees relate to professional services rendered for (a) audits of our financial statements, (b) reviews of our quarterly financial statements and (c) services related to other regulatory filings.

Fee Category	2016	2015
Audit fees	\$180,500	\$170,000
All other fees	\$ 96,500 <sup>(1)</sup>	\$113,120(2)

- (1) \$19,500 of such fees were incurred in connection with the preparation of a registration statement and an annual report by Intrexon that incorporated our financial statements. Intrexon reimbursed us for all such costs. \$77,000 of such fees were incurred in connection with other filings and special accounting services.
- (2) \$32,500 of such fees were incurred in connection with the preparation of a registration statement and an annual report by Intrexon that incorporated our financial statements. Intrexon reimbursed us for all such costs. \$58,000 of such fees were incurred in connection with the preparation of a registration statement we filed in 2015. \$22,620 of such fees were incurred in connection with other filings and special accounting services.

We did not incur any fees of RSM US LLP for audit-related, tax or other services in 2016 or 2015.

## Audit Committee Pre-Approval Policy and Procedures

The audit committee charter provides that all audit and non-audit accounting services that are permitted to be performed by our 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. All services performed by RSM US LLP in 2016 and 2015 have been pre-approved in accordance with the charter.

Prior to or as soon as practicable following the beginning of each fiscal year, a description of audit, audit-related, tax, and other services expected to be performed by the independent registered public accounting firm in the following fiscal year is presented to the audit committee for approval. Following such approval, any requests for audit, audit-related, tax, and other services not presented and pre-approved must be submitted to the audit committee for specific pre-approval and cannot commence until such approval has been granted. Normally, pre-approval is provided at regularly scheduled meetings. However, the authority to grant specific pre-approval between meetings, as necessary, may be delegated to one or more members of the audit committee who are independent directors. In the event such authority is so delegated, the full audit committee must be updated at the next regularly scheduled meeting with respect to any services that were granted specific pre-approval by delegation. During 2016, the audit committee functioned in conformance with these procedures.

# HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (such as brokers) to satisfy the delivery requirements for Notices of Internet Availability of Proxy Materials or other annual meeting materials with respect to two or more stockholders sharing the same address by delivering a single Notice of Internet Availability of Proxy Materials or other annual meeting materials addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers with account holders who are our stockholders will be "householding" our proxy materials. A single Notice of Internet Availability of Proxy Materials or other annual meeting materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate Notice of Internet Availability of Proxy Materials or other Annual Meeting materials, please notify your broker. Direct your written request to ZIOPHARM Oncology, Inc., One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129, Attention: Secretary or contact our Secretary at (617) 259-1970. Stockholders who currently receive multiple copies of the Notice of Internet Availability of Proxy Materials or other Annual Meeting materials at their addresses and would like to request "householding" of their communications should contact their brokers.

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# **OTHER MATTERS**

The board of directors knows of no other matters that will be presented for consideration at the annual meeting. If any other matters are properly brought before the annual meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors

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Caesar J. Belbel Chief Operating Officer, Executive Vice President, Chief Legal Officer and Secretary

ZIOPHARM ONCOLOGY, INC. ATTN: CORPORATE SECRETARY ONE FIRST AVENUE, PARRIS BLDG #34 THIRD FLOOR, NAVY VARD PLAZA BOSTON, MA 02129

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

## ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

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

VOTE BY PHONE - 1-800-690-6903 Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

#### VOTE BY MAIL

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

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

KEEP THIS PORTION FOR YOUR RECORDS DETACH AND RETURN THIS PORTION ONLY

## THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

The Board of Directors recommends you vote FOR the following:		For All	Withhold All	For All Except	mark "For A	uthority to vote for any Il Except" and write In the line below.	y individual non the number(s)	ninee(s), of the		_		
1.	Election of Directors											I
	Nominees											
01 06	Murray Brennan Michael Weiser	02 James A. Cannon	03	3 Wyche	Fowler, Jr.	04	Randal J. Kirk	05	Scott Tarriff			
The	Board of Directors recomm	ends you vote FOR propos	als 2 and	13.						For	Against	Abstain
2.	To ratify the appointment of	RSM US LLP as the Company	y's indep	endent reg	istered publi	c accounting fi	rm for 2017					
3.	To approve, on an advisory	basis, the compensation of the	e Compa	iny's named	d executive o	fficers as disc	losed in the proxy s	tatement				
The Board of Directors recommends you vote 1 YEAR on the following proposal: 1 year 2 y								2 years	3 years	Abstain		
4. To indicate, on an advisory basis, the preferred frequency of shareholder advisory votes on the compensation of the Company's named												
NOT	E: To transact any other bus	iness as may properly come b	efore the	e meeting o	r any adjour	nments or pos	tponements thereof	f.				
	address change/comments, n reverse for instructions)	nark here.	Yes	No								
Please indicate if you plan to attend this meeting												
Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name, by authorized officer.												
Sign	ature [PLEASE SIGN WITHIN	N BOX] Date				Signature (J	loint Owners)		Date			

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice & Proxy Statement and Form 10-K are available at <u>www.proxyvote.com</u>

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ZIOPHARM ONCOLOGY, INC. Annual Meeting of Stockholders June 14, 2017 10:00 AM EDT This proxy is solicited by the Board of Directors

The undersigned hereby appoints Laurence James Neil Cooper, M.D., Ph.D. and Caesar J. Belbel or either of them, as proxies, each with the power to act without the other and to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side, all of the shares of common stock of ZIOPHARM ONCOLOGY, INC. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders of the Company to be held at 10:00 AM EDT on June 14, 2017, at the principal executive offices of the company located at One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129, and any adjournment or postponement thereof.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.

Address change / comments:

(If you noted any Address Changes and/or Comments above, please mark corresponding box on the reverse side.)

Continued and to be signed on reverse side