
**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

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:

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

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

Fee paid previously with preliminary materials:

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

(1) Amount previously paid:

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

(3) Filing Party:

(4) Date Filed:



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 29, 2020

To the stockholders of Ziopharm Oncology, Inc.:

NOTICE IS HEREBY GIVEN that the 2020 annual meeting of stockholders (the “annual meeting”) of Ziopharm Oncology, Inc. (the “Company”), which, due to the public health concerns regarding the ongoing coronavirus pandemic (COVID-19), will be held, virtually and exclusively online via live audio-only webcast, on Monday, June 29, 2020, at 9:00 a.m. Eastern time, for the following purposes:

1. To elect the seven (7) nominees for director named in the accompanying proxy statement (the “proxy statement”) to hold office until the 2021 annual meeting of stockholders and until their successors are duly elected and qualified (Proposal 1);
2. To ratify the selection by the audit committee of the board of directors of RSM US LLP as the Company’s independent registered public accounting firm of the Company for its fiscal year ending December 31, 2020 (Proposal 2);
3. To approve, on an advisory basis, the compensation of the Company’s named executive officers as disclosed in the proxy statement (Proposal 3);
4. To approve the Company’s 2020 Equity Incentive Plan (the “2020 Plan”) (Proposal 4);
5. To approve an amendment to the Company’s amended and restated certificate of incorporation (the “charter”) to increase the authorized number of shares of common stock from 250,000,000 shares to 445,000,000 shares (Proposal 5); and
6. To transact any other business as may properly come before the annual meeting or any adjournments thereof.

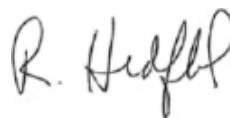
These items of business are more fully described in the Proxy Statement accompanying this Notice.

You will be able to attend the annual meeting online, submit your questions during the annual meeting and vote your shares electronically during the meeting by visiting www.virtualshareholdermeeting.com/ZIOP2020. **Because the annual meeting is being conducted electronically, you will not be able to attend the annual meeting in person.**

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The record date for the annual meeting is May 1, 2020. Only stockholders of record at the close of business on that date may vote at the annual meeting or any adjournment or postponement thereof. To participate in and vote at the annual meeting, stockholders will need the unique 16-digit control number (printed in the box marked by the arrow) in their Notice of Internet Availability of Proxy Materials or proxy card (if you requested a printed copy of the proxy materials).

By Order of the Board of Directors,



Robert Hadfield
Executive Vice, President, General Counsel and Secretary
Boston, Massachusetts
May 18, 2020

Your vote is very important. Whether or not you attend the annual meeting virtually, it is important that your shares be represented. You may vote your proxy through the Internet, by telephone or, if you receive a paper proxy card by mail, by completing and returning the proxy card mailed to you. Voting instructions are provided in the Notice of Internet Availability of Proxy Materials, or, if you receive a paper proxy card by mail, the instructions are printed on your proxy card and included in the proxy statement. If you participate virtually in the annual meeting, you may vote at that time, even if you previously submitted your vote. Even if you plan to participate in the annual meeting, we urge you to vote as soon as possible over the internet, by telephone or by mail as described in the proxy statement.

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**Ziopharm Oncology, Inc.
One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor
Boston, Massachusetts 02129**

**PROXY STATEMENT
FOR THE ANNUAL MEETING OF STOCKHOLDERS**

To Be Held On June 29, 2020

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Who is soliciting my vote?

We are providing you with these proxy materials because the board of directors (the “board”) of Ziopharm Oncology, Inc. (sometimes referred to as “we,” “us,” “our” or the “Company”) is soliciting your proxy to vote at the 2020 annual meeting of stockholders (the “annual meeting”), including at any adjournments or postponements thereof. The annual meeting will be held on June 29, at 9:00 a.m., Eastern Time virtually and exclusively online via live audio-only webcast at www.virtualshareholdermeeting.com/ZIOP2020.

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, or the SEC, we have elected to provide access to our proxy materials over the internet. Accordingly, we have sent you a Notice of Internet Availability of Proxy Materials (the “Notice”), because the board is soliciting your proxy to vote at 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 set of the proxy materials. Instructions on how to access the proxy materials over the internet or to request a printed set may be found in the Notice.

We intend to mail the Notice on or about May 18, 2020 to all stockholders of record entitled to vote at the annual meeting.

Why are you holding a virtual annual meeting?

As part of our effort to maintain a safe and healthy environment for our directors, members of management and stockholders who wish to attend the annual meeting, in light of the novel coronavirus disease, COVID-19, we believe that hosting a virtual meeting is in the best interest of the company and its stockholders and enables increased stockholder attendance and participation because stockholders can participate from any location around the world. Stockholders will have the same rights and opportunities to participate as they would have at an in-person meeting.

Will I receive any other proxy materials by mail?

We may send you a proxy card, along with a second Notice, on or after May 28, 2020.

How do I attend the annual meeting?

You cannot attend the annual meeting physically. You can attend the annual meeting by visiting www.virtualshareholdermeeting.com/ZIOP2020, where you will be able to listen to the annual meeting live, submit questions and vote online.

The annual meeting will start at 9:00 a.m. Eastern Time on June 29, 2020. We encourage you to access the annual meeting prior to the start time to allow time for online check-in. We have worked to offer the same

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participation opportunities as would be provided at an in-person meeting while further enhancing the online experience available to all stockholders regardless of their location. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies. If you experience technical difficulties during the annual meeting, you should call the technical support phone number provided when you log in to the annual meeting.

In order to enter the annual meeting virtually, you will need the unique 16-digit control number, which is included in the Notice or on your proxy card if you are a stockholder of record of the shares, or included with your voting instruction card and voting instructions received from your broker, bank, trustee, or nominee if you are the beneficial owner of the shares held in “street name.”

What if I cannot virtually attend the annual meeting?

You may vote your shares electronically before the meeting by internet, by proxy or by telephone as described below. You do not need to access the annual meeting audio-only webcast to vote if you submitted your vote via proxy, by internet or by telephone in advance of the annual meeting.

Who can vote at the annual meeting?

Only stockholders of record at the close of business on May 1, 2020 will be entitled to vote at the annual meeting. On the record date, there were 214,286,337 shares of common stock outstanding and entitled to vote. A list of such holders will be open to the examination of any stockholder for any purpose germane to the annual meeting at Ziopharm Oncology, One First Avenue, Parris Building 34, Navy Yard Plaza, Boston, Massachusetts for a period of ten (10) days prior to the annual meeting. Please contact the Secretary of the Company of the Company to make arrangements to inspect the list.

Stockholder of Record — Shares Registered in Your Name: If on May 1, 2020, 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 at the annual meeting virtually or vote by proxy prior to the annual meeting. Whether or not you plan to attend the annual meeting, we urge you to vote by proxy through the internet, by telephone 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 May 1, 2020, 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, bank 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 at the annual meeting even if you participate virtually unless you request and obtain a valid proxy from your broker, bank or other agent.

What am I voting on?

There are five matters scheduled for a vote:

1. Election of seven (7) directors (Proposal 1);
2. Ratification of the selection by the audit committee of the board of directors of RSM US LLP as the Company’s independent registered public accounting firm for its fiscal year ending December 31, 2020 (Proposal 2);

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3. Approval, on an advisory basis, of the compensation of the Company's named executive officers as disclosed in this proxy statement (Proposal 3);
4. Approval of the 2020 Plan (Proposal 4); and
5. Approval of the proposed amendment to the Company's charter to increase the authorized number of shares of common stock from 250,000,000 shares to 445,000,000 shares (Proposal 5).

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 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 the other proposals, you may vote "For" or "Against," or you may abstain from voting.

The procedures for voting are fairly simple:

Stockholder of Record — Shares Registered in Your Name: If you are a stockholder of record, you may vote electronically over the internet before or during 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 or that we may elect to deliver at a later time. Whether or not you plan to attend the virtual annual meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the annual meeting virtually and vote electronically at the annual meeting even if you have already voted by proxy. You may vote as follows:

- To vote through the internet before the annual meeting, 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 28, 2020 to be counted.
- To vote your shares electronically at the annual meeting, you will need to visit www.virtualshareholdermeeting.com/ZIOP2020 during the annual meeting while the polls are open and follow the instructions provided on the Notice or the proxy card. You will be asked to provide the control number from the notice and follow the instructions.
- To vote over the telephone from a location in the United States, dial toll-free 1-800-690-6903, using a touch-tone phone and follow the recorded instructions. You will be asked to provide the control number from the Notice. Your vote must be received by 11:59 p.m. Eastern time, on June 28, 2020 to be counted.
- 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.

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 electronically 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.

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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. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

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 May 1, 2020.

If I am a stockholder of record and I do not vote, or if I return a proxy card or otherwise vote without giving specific voting instructions, what happens?

If you are a stockholder of record and do not vote by completing your proxy card, by telephone, through the internet or by voting electronically at the annual meeting, your shares will not be voted.

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 seven nominees for director, “For” the ratification of the selection by the audit committee of the board of directors of RSM US LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2020, “For” the approval, on an advisory basis, of the compensation of our named executive officers as disclosed in this proxy statement, and “For” an amendment to our charter to effect the increase of the authorized number of shares of our common stock from 250,000,000 shares to 445,000,000 shares. 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.

If I am a beneficial owner of shares held in street name and I do not provide my broker or bank with voting instructions, what happens?

If you are a beneficial owner of shares held in street name and you do not instruct your broker, bank or other agent how to vote your shares, your broker, bank or other agent may still be able to vote your shares in its discretion. Under the rules of the New York Stock Exchange, or NYSE, brokers, banks and other securities intermediaries that are subject to NYSE rules may use their discretion to vote your “uninstructed” shares with respect to matters considered to be “routine” under NYSE rules, but not with respect to “non-routine” matters. Proposals 1, 3 and 4 are considered to be “non-routine” under NYSE rules meaning that your broker may not vote your shares on those proposals in the absence of your voting instructions. However, Proposals 2 and 5 are considered to be “routine” matters under NYSE rules meaning that if you do not return voting instructions to your broker by its deadline, your shares may be voted by your broker in its discretion on Proposals 2 and 5. Accordingly, if you own shares through a nominee, such as a broker, bank or other agent, please be sure to instruct your nominee how to vote to ensure that your vote is counted on all of the proposals.

If you are a beneficial owner of shares held in street name, in order to ensure your shares are voted in the way you would prefer, you must provide voting instructions to your broker, bank or other agent by the deadline provided in the materials you receive from your broker, bank or other agent.

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 engaged Alliance Advisors to assist us with our shareholder engagement process, and we may pay them an estimated fee of \$25,000, plus reasonable out-of-pocket expenses if they assist us in 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?

Stockholder of Record: Shares Registered in Your Name

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 (which automatically revokes the earlier proxy).
- 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 virtually and vote electronically. Simply attending the annual meeting virtually will not, by itself, revoke your proxy. ***Even if you plan to attend the annual meeting virtually, we recommend that you also submit your proxy or voting instructions or vote by telephone or through the Internet so that your vote will be counted if you later decide not to attend the annual meeting.***

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

Beneficial Owner: Shares Registered in the Name of Broker or Bank

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 1), votes “For,” “Withhold” and broker non-votes; and with respect to all other proposals, votes “For” and “Against,” abstentions and, if applicable, broker non-votes. Abstentions will have the same effect as “Against” votes on Proposals 2, 3, 4 and 5, and will have no effect on Proposal 1. Broker non-votes on Proposals 1, 3 and 4 will have no effect and will not be counted towards the vote total for any of those proposals.

What are “broker non-votes”?

As discussed above, when a beneficial owner of shares held in street name does not give voting instructions to his or her broker, bank or other securities intermediary holding his or her shares as to how to vote on matters deemed to be “non-routine” under NYSE, the broker, bank or other such agent cannot vote the shares. These un-voted shares are counted as “broker non-votes.” Proposals 1, 3, and 4 are considered to be “non-routine” under NYSE rules and therefore, we expect broker non-votes to exist in connection with those proposals. Broker non-votes will have no effect on those proposals.

As a reminder, if you are a beneficial owner of shares held in street name, in order to ensure your shares are voted in the way you would prefer, you must provide voting instructions to your broker, bank or other agent by the deadline provided in the materials you receive from your broker, bank or other agent.

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How many votes are needed to approve each proposal?

The following table summarizes the minimum vote needed to approve each proposal and the effect of abstentions and broker non-votes.

<u>Proposal No.</u>	<u>Proposal Description</u>	<u>Vote Required for Approval</u>	<u>Effect of Abstentions</u>	<u>Effect of Broker Non-Votes</u>
1	Election of directors	Directors will be elected by a plurality of the votes cast by the holders of shares present or represented by proxy and entitled to vote on the election of directors. The seven nominees receiving the most “For” votes will be elected as directors	No effect	No effect
2	Ratification of the selection of RSM US LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020	“For” votes from the holders of a majority of shares present in person or represented by proxy and entitled to vote on the matter	Against	Not applicable ⁽¹⁾
3	Approval, on an advisory basis, of the compensation of our named executive officers	“For” votes from the holders of a majority of shares present in person or represented by proxy and entitled to vote on the matter	Against	No effect
4	Approval of the 2020 Plan	“For” votes from the holders of a majority of shares present in person or represented by proxy and entitled to vote on the matter	Against	No effect
5	Amendment of our charter to increase the authorized number of shares of common stock	“For” votes from the holders of a majority of the outstanding shares on the record date	Against	Not applicable ⁽¹⁾

- (1) This proposal is considered to be a “routine” matter under NYSE rules. Accordingly, if you hold your shares in street name and do not provide voting instructions to your broker, bank or other agent that holds your shares, your broker, bank or other agent has discretionary authority under NYSE rules to vote your shares on this proposal.

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 deemed present at the annual meeting in person or represented by proxy. On the record date, there were 214,286,337 shares outstanding and entitled to vote. Thus, the holders of 107,143,169 shares must be deemed 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 electronically 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 deemed 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. In addition, final voting results will be published in a current report on Form 8-K that we expect to file within four business days after the annual meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

PROPOSALS

Proposal 1

Election of Directors

Our board of directors presently has seven directors: Christopher Bowden M.D.; Scott Braunstein, M.D.; Laurence Cooper, M.D., Ph.D.; Elan Ezickson; Heidi Hagen; Doug Pagán; and Scott Tarriff.

Each director nominee identified below, other than Dr. Bowden and Ms. Hagen, was previously elected by the stockholders. If elected, each of these nominees has consented to serve as one of our directors, to hold office until our next annual meeting of stockholders and until his or her successor has been duly elected and qualified, or, if sooner, until his or her 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.

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.

<u>Name of Nominee</u>	<u>Position(s) with the Company</u>	<u>Year First Became a Director</u>	<u>Year Proposed Term Will Expire</u>
Scott Tarriff	Chair	2015	2021
Christopher Bowden ⁽¹⁾	Director	2019	2021
Scott Braunstein	Director	2018	2021
Laurence Cooper	Chief Executive Officer and Director	2018	2021
Elan Z. Ezickson	Director	2018	2021
Heidi Hagen ⁽²⁾	Director	2019	2021
Douglas W. Pagán	Director	2018	2021

(1) On October 8, 2019, Dr. Bowden was elected by the board to fill a vacancy on the board.

(2) On June 13, 2019, Ms. Hagen was elected by the board to fill a vacancy on the board.

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.

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.

None of the director nominees are related by blood, marriage or adoption to any of our other director nominees or executive officers and none of the director nominees are 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

Directors are elected by a plurality of the votes of the holders of shares deemed present in person or represented by proxy and entitled to vote on the election of directors. Accordingly, if a quorum is present, the seven 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 seven nominees named above.

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

Proposal 2

Ratification of Selection of Independent Registered Public Accounting Firm

The audit committee of the board has selected RSM US LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020. RSM US LLP has audited our financial statements since 2010. A representative of RSM US LLP is expected to virtually 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 bylaws 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 selection 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 selection 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 deemed present in person or represented by proxy and entitled to vote at the annual meeting will be required to ratify the selection of RSM US LLP. Abstentions will be counted toward the vote total for Proposal 2 and will have the same effect as “Against” votes.

Principal Accountant Fees and Services

The following table presents the aggregate fees billed by RSM US LLP for the years ended December 31, 2019 and 2018.

<u>Fee Category</u>	<u>2019</u>	<u>2018</u>
Audit Fees ⁽¹⁾	\$350,050	\$204,250
All Other Fees	49,009 ⁽²⁾	110,561 ⁽³⁾
Total Fees	\$399,059	\$314,811

- (1) Represents fees billed for professional services provided to us in connection with the annual audit of our consolidated financial statements, the review of our quarterly condensed consolidated financial statements, the audit of the effectiveness of our internal controls over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, as well as audit services that are normally provided by an independent registered public accounting firm in connection with statutory and regulatory filings or engagements for those fiscal years, such as statutory audits.
- (2) Represents fees billed for research and analysis regarding new business strategies as well as administrative fees and out-of-pocket costs.
- (3) Represents fees of billed for special accounting services, as well as fees in the amount of \$21,500, which were incurred in connection with the preparation by Precigen, Inc. of a registration statement and an annual report which incorporated our financial statements, and such fees were subsequently reimbursed by Precigen, Inc.

Other than as discussed above, we did not incur any fees of RSM US LLP for audit-related, tax or other services in 2019 or 2018.

All fees described above were pre-approved by the audit committee.

Pre-Approval Policy and Procedures

The audit committee has adopted a policy and procedures for the pre-approval of audit and non-audit services rendered by our independent registered public accounting firm, RSM US LLP. The policy generally pre-approves specified services in the defined categories of audit services, audit-related services and tax services up to specified amounts. Pre-approval may also be given as part of the audit committee's approval of the scope of the engagement of the independent registered public accounting firm or on an individual, explicit, case-by-case basis before the independent registered public accounting firm is engaged to provide each service. The pre-approval of services may be delegated to one or more of the audit committee's members, but the decision must be reported to the full audit committee at its next scheduled meeting.

The board recommends that you vote "FOR" the ratification of the selection of RSM US LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2020.

Proposal 3

Advisory Vote on Executive Compensation

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, and Section 14A of the Securities Exchange Act of 1934, as amended, or the Exchange 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 SEC rules. At the 2017 annual meeting of stockholders, our stockholders indicated their preference that we solicit a non-binding advisory vote on the compensation of the named executive officers, commonly referred to as a “say-on-pay vote,” every year. The board has adopted a policy that is consistent with that preference indicated by our stockholders. Accordingly, this year we are again asking the stockholders to approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement.

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. 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 and retain talented and experienced executives, whose knowledge, skills and performance are critical to our success, and motivate these executive officers to achieve our business objectives and to lead us in a competitive environment.

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 hereby 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. 2020 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, compensation tables and narrative discussion.”

Vote Required

The affirmative vote of the holders of a majority of the shares deemed 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 our compensation committee. Nevertheless, the views expressed by our stockholders, whether through this vote or otherwise, are important to us and, accordingly, the board and our 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 4

Approval of 2020 Equity Incentive Plan

Our board of directors is requesting stockholder approval of the ZIOPHARM Oncology, Inc. 2020 Equity Incentive Plan (the “2020 Plan”). The 2020 Plan is intended to be the successor to and continuation of the ZIOPHARM Oncology, Inc. 2012 Equity Incentive Plan (the “2012 Plan”).

Currently, we maintain the 2012 Plan to grant equity awards to our employees, directors and consultants. We are seeking stockholder approval of the 2020 Plan to increase the number of shares available for the grant of stock options, restricted stock awards and other awards, which will enable us to have a competitive equity incentive program to compete with our peer group for key talent. Approval of the 2020 Plan by our stockholders will allow us to grant stock options, restricted stock awards and other awards at levels determined appropriate by the board of directors or compensation committee. The 2020 Plan will also allow us to utilize a broad array of equity incentives in order to secure and retain the services of our employees, directors and consultants, and to provide long-term incentives that align the interests of our employees, directors and consultants with the interests of our stockholders.

If this Proposal 4 is approved by our stockholders, the 2020 Plan will become effective as of the date of the annual meeting and as of such date, no additional awards will be granted under the 2012 Plan. In the event that our stockholders do not approve this Proposal 4, the 2020 Plan will not become effective and the 2012 Plan will continue to be effective in accordance with its terms.

Why You Should Vote to Approve the 2020 Plan

Equity Awards Are an Important Part of Our Compensation Philosophy

Our board of directors believes that our broad-based equity compensation program is essential to attract, retain and motivate people with the necessary talent and experience and to provide additional incentive to achieve our short- and long-term business objectives. All of our employees participate in our equity compensation programs and we believe that our equity programs create a strong link between our employees and our stockholders’ interests. Equity compensation promotes an employee ownership culture, motivates employees to create stockholder value and, because the awards are typically subject to vesting and other conditions, promotes a focus on long-term value creation. Our board of directors believes we must continue to offer competitive equity compensation packages in order to attract and motivate the talent necessary for our continued growth and success.

The board of directors believes that the shares currently available for future grant under the 2012 Plan will be insufficient to meet our anticipated retention and recruiting needs. The 2020 Plan will allow us to continue to utilize equity awards as long-term incentives to secure and retain the services of our employees, directors and consultants, consistent with our compensation philosophy and common compensation practices for our industry. Therefore, the board of directors believes that the 2020 Plan is in the best interests of our business and our stockholders and unanimously recommends a vote in favor of this Proposal 4.

The Size of Our Share Reserve Request is Reasonable and We Manage Our Equity Use Responsibly

Our compensation philosophy reflects broad-based eligibility for equity awards, and we grant awards to all of our employees. However, we recognize that equity awards dilute existing stockholders, and, therefore, we are mindful to responsibly manage the growth of our equity compensation program. We are committed to effectively monitoring our equity compensation share reserve, including our “burn rate,” to ensure that we maximize stockholders’ value by granting the appropriate number of equity awards necessary to attract, reward, and retain employees, directors and consultants.

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2017 - 2019 Burn Rate and 2019 Outstanding Awards Overhang

The following table provides certain additional information regarding our equity incentive program and our equity burn rate over the last three fiscal years and current overhang. Note that burn rate and overhang are calculated on a non-diluted basis.

Burn Rate	2017	2018	2019
Stock Options Granted	1,188,800	1,744,950	3,410,691
Full Value Shares Granted	907,032	150,321	1,519,766
Total Equity Awards	2,095,832	1,895,271	4,930,457
Weighted Average Common Shares Outstanding	136,938,264	143,508,674	167,952,114
Burn Rate(1)	1.5%	1.3%	2.9%
Total Equity Awards Forfeited	122,000	487,266	1,808,391
Net Burn Rate(2)	1.4%	1.0%	1.9%

- (1) Burn Rate equals number of shares subject to equity awards granted during a fiscal year divided by weighted average common shares outstanding for that fiscal year.
- (2) Net Burn Rate equals (i) number of shares subject to equity awards granted during a fiscal year minus total equity awards forfeited during that fiscal year, divided by (ii) weighted average shares of common stock outstanding for that fiscal year.

Current Overhang (As of March 31, 2020)

Stock Options Outstanding	7,706,879
Weighted Average Exercise Price of Outstanding Stock Options	\$ 4.20
Weighted Average Remaining Term of Outstanding Stock Options	8.19 years
Full Value Awards Outstanding	1,495,536
Total Equity Awards Outstanding	9,202,415
Shares Remaining Available for Future Grant ⁽¹⁾	1,066,275
Common Stock Outstanding as of March 31, 2020	214,286,337

- (1) As of March 31, 2020, there were no shares of common stock available for grant under any of our equity incentive plans, other than the 2012 Plan.

The closing price of our common stock as reported on Nasdaq Global Select Market on May 1, 2020, the record date for this annual meeting, was \$2.54

The 2020 Plan Combines Compensation and Governance Best Practices

The 2020 Plan includes provisions that are designed to protect our stockholders' interests and to reflect corporate governance best practices, including:

- *No stock option repricing/exchange.* The board of directors does not have the authority to reprice any outstanding stock option or stock appreciation right by reducing the exercise price of the stock option or stock appreciation right or to cancel any outstanding stock option or stock appreciation right that has an exercise price or strike price in excess of the current fair market value in exchange for cash or other stock awards without obtaining the approval of our stockholders within 12 months prior to the repricing or cancellation and re-grant event.
- *No "evergreen" provision; stockholder approval is required for additional shares.* The 2020 Plan does not contain an annual "evergreen" provision. The 2020 Plan authorizes a fixed number of shares, so that stockholder approval is required to issue any additional shares.

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- *Restrictions on dividends.* The 2020 Plan provides that (i) no dividends or dividend equivalents may be paid with respect to any shares of our common stock subject to an award before the date such shares have vested, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including, but not limited to, any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date, if any, such shares are forfeited to or repurchased by us due to a failure to vest.
- *Fungible share counting.* The 2020 Plan contains a “fungible share counting” structure, which increases the rate at which the share reserve is depleted for stock awards other than stock options and stock appreciation rights in order to minimize stockholder dilution. Specifically, the number of shares of our common stock available for issuance under the 2020 Plan will be reduced by (i) one share for each share issued pursuant to a stock option or stock appreciation right with an exercise price that is at least 100% of the fair market value of our common stock on the date of grant (an “Appreciation Award”), and (ii) 1.5 shares for each share issued pursuant to a stock award that is not an Appreciation Award (a “Full Value Award”). Such shares will return to the share reserve at the same rates.
- *No liberal share counting provisions for Appreciation Awards.* The following shares will not become available again for issuance under the 2020 Plan: (i) any shares that are reacquired or withheld (or not issued) by us to satisfy the exercise or strike price of an Appreciation Award; (ii) any shares that are reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with an Appreciation Award; (iii) any shares repurchased by us on the open market with the proceeds of the exercise or strike price of an Appreciation Award; and (iv) in the event that a stock appreciation right granted under the 2020 Plan or the 2012 Plan is settled in shares, the gross number of shares subject to such award.
- *No liberal change in control definition.* The change in control definition in the 2020 Plan is not a “liberal” definition. A change in control transaction must actually occur in order for the change in control provisions in the 2020 Plan to be triggered.
- *Awards subject to forfeiture/clawback.* Awards granted under the 2020 Plan will be subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law, and any other clawback policy that the Company adopts. In addition, the board may impose other clawback, recovery or recoupment provisions in an award agreement, including a reacquisition right in respect of previously acquired shares or other cash or property upon the occurrence of cause.
- *Material amendments require stockholder approval.* Consistent with Nasdaq rules, the 2020 Plan requires stockholder approval of any material revisions to the 2020 Plan. In addition, certain other amendments to the 2020 Plan require stockholder approval.

Description of the 2020 Plan

The material features of the 2020 Plan are described below. The following description of the 2020 Plan is a summary only and is qualified in its entirety by reference to the complete text of the 2020 Plan. Stockholders are urged to read the actual text of the 2020 Plan in its entirety, which is attached to this proxy statement as *Appendix A*.

Purpose

The 2020 Plan is designed to secure and retain the services of our employees, non-employee directors and consultants, to provide incentives for such persons to exert maximum efforts for the success of the Company and

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our affiliates, and to provide a means by which such persons may be given an opportunity to benefit from increases in the value of our common stock. The 2020 Plan is also designed to align employees' interests with stockholder interests.

Continuation of and Successor to 2012 Plan

The 2020 Plan is intended to be the continuation of and successor to the 2012 Plan. If the 2020 Plan is approved by our stockholders, no additional awards will be granted under the 2012 Plan upon and following the date of the annual meeting. If the 2020 Plan is not approved by our stockholders, the 2020 Plan will not become effective and the 2012 Plan will continue to be effective in accordance with its terms.

Types of Awards

The terms of the 2020 Plan provide for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, and performance awards.

Shares Available for Awards

Subject to adjustment for certain changes in our capitalization, the aggregate number of shares of our common stock that may be issued under the 2020 Plan will not exceed (i) 22,066,275 shares (which includes 21,000,000 new shares and the number of shares remaining available for the grant of new awards under the 2012 Plan as of March 31, 2020) less (A) one share of common stock for every one share that was subject to an Appreciation Award granted under the 2012 Plan after March 31, 2020, and prior to the effective date of the 2020 Plan and (B) 1.5 shares of common stock for every one share that was subject to a Full Value Award granted under the 2012 Plan after March 31, 2020, and prior to the effective date of the 2020 Plan, plus (ii) the 2012 Plan's Returning Shares (as defined below), as such shares become available from time to time.

The "2012 Plan's Returning Shares" are shares of our common stock subject to outstanding awards granted under the 2012 Plan that following March 31, 2020: (i) are not issued because such award or any portion thereof expires or otherwise terminates without all of the shares covered by such award having been issued; (ii) are not issued because such award or any portion thereof is settled in cash; (iii) are forfeited back to or repurchased by us because of the failure to meet a contingency or condition required for the vesting of such shares; (iv) are withheld or reacquired to satisfy the exercise, strike or purchase price of a Full Value Award; or (v) are withheld or reacquired to satisfy a tax withholding obligation in connection with a Full Value Award.

The number of shares of our common stock available for issuance under the 2020 Plan will be reduced or increased by (i) one share for each share of common stock issued pursuant to an Appreciation Award, and (ii) 1.5 shares for each share of common stock issued pursuant to a Full Value Award.

The following actions will not result in an issuance of shares of our common stock under the 2020 Plan and accordingly will not reduce the number of shares of our common stock available for issuance under the 2020 Plan: (i) the expiration or termination of any portion of an award granted under the 2020 Plan without the shares covered by such portion of the award having been issued; (ii) the settlement of any portion of an award granted under the 2020 Plan in cash; (iii) the withholding of shares that would otherwise be issued by the Company to satisfy the exercise, strike or purchase price of a Full Value Award; and (iv) the withholding of shares that would otherwise be issued by the Company to satisfy a tax withholding obligation in connection with a Full Value Award.

If any shares of our common stock issued pursuant to an award granted under the 2020 Plan are (i) forfeited back to or redeemed or repurchased by us because of the failure to meet a contingency or condition required for the vesting of such shares; (ii) reacquired by the Company to satisfy the exercise, strike or purchase price of a Full Value Award; or (iii) reacquired by the Company to satisfy a tax withholding obligation in connection with a Full Value Award, then such shares will become available again for issuance under the 2020 Plan.

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The following shares of our common stock will not become available again for issuance under the 2020 Plan: (i) any shares that are reacquired or withheld (or not issued) by us to satisfy the exercise or strike price of an Appreciation Award granted under the 2020 Plan or the 2012 Plan (including any shares subject to such Appreciation Award that are not delivered because such award is exercised through a reduction of shares subject to such award); (ii) any shares that are reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with an Appreciation Award granted under the 2020 Plan or the 2012 Plan; (iii) any shares repurchased by us on the open market with the proceeds of the exercise or strike price of an Appreciation Award granted under the 2020 Plan or the 2012 Plan; and (iv) in the event that a stock appreciation right granted under the 2020 Plan or the 2012 Plan is settled in shares, the gross number of shares subject to such award.

Eligibility

All of our (including our affiliates') employees, non-employee directors and consultants are eligible to participate in the 2020 Plan and may receive all types of awards other than incentive stock options. Incentive stock options may be granted under the 2020 Plan only to our (including our affiliates') employees. As of May 1, 2020, we (including our affiliates) had approximately 83 employees, six non-employee directors and approximately six consultants.

Administration

The 2020 Plan will be administered by our board of directors, which may in turn delegate some or all of the administration of the 2020 Plan to a committee or committees composed of members of the board of directors. Our board of directors has delegated concurrent authority to administer the 2020 Plan to our compensation committee, but may, at any time, revest in itself some or all of the power delegated to our compensation committee. Our board of directors and compensation committee are each considered to be a Plan Administrator for purposes of this Proposal 4.

Subject to the terms of the 2020 Plan, the Plan Administrator may determine the recipients, the types of awards to be granted, the number of shares of our common stock subject to or the cash value of awards, and the terms and conditions of awards granted under the 2020 Plan, including the period of their exercisability and vesting. The Plan Administrator has the authority to provide for accelerated exercisability and vesting of awards. Subject to the limitations set forth below, the Plan Administrator also determines the fair market value applicable to an award and the exercise or strike price of stock options and stock appreciation rights granted under the 2020 Plan.

In addition, the Plan Administrator may delegate to one or more executive officers the authority to designate employees who are not executive officers to be recipients of certain awards and the number of shares of our common stock subject to such awards. Under any such delegation, the Plan Administrator will specify the total number of shares of our common stock that may be subject to the awards granted by such executive officer. The executive officer may not grant an award to himself or herself.

Repricing; Cancellation and Re-Grant of Stock Options or Stock Appreciation Rights

Under the 2020 Plan, unless our stockholders have approved such an action within 12 months prior to such an event, the Plan Administrator does not have the authority to reprice any outstanding stock option or stock appreciation right by (1) reducing the exercise or strike price of the stock option or stock appreciation right, (2) canceling any outstanding stock option or stock appreciation right that has an exercise or strike price greater than the then-current fair market value of our common stock in exchange for cash or other awards (other than in connection with a Transaction, as defined in the 2020 Plan and described below), or (3) take any other action with respect to an outstanding stock option or stock appreciation right that would be treated as a repricing under the rules and regulations of the principal U.S. national securities exchange on which the Common Stock is listed, in each case .

Dividends and Dividend Equivalents

The 2020 Plan provides that dividends or dividend equivalents may be paid or credited with respect to any shares of our common stock subject to an award other than an option or stock appreciation right, as determined by the Plan Administrator and contained in the applicable award agreement; *provided, however*, that (i) no dividends or dividend equivalents may be paid with respect to any such shares before the date such shares have vested, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date such shares are forfeited to or repurchased by us due to a failure to vest.

Stock Options

Stock options may be granted under the 2020 Plan pursuant to stock option agreements. The 2020 Plan permits the grant of stock options that are intended to qualify as incentive stock options, or ISOs, and nonstatutory stock options, or NSOs.

The exercise price of a stock option granted under the 2020 Plan may not be less than 100% of the fair market value of the common stock subject to the stock option on the date of grant and, in some cases (see “—Limitations on Incentive Stock Options” below), may not be less than 110% of such fair market value.

The term of stock options granted under the 2020 Plan may not exceed ten years from the date of grant and, in some cases (see “—Limitations on Incentive Stock Options” below), may not exceed five years from the date of grant. Except as otherwise provided in a participant’s stock option agreement or other written agreement with us or one of our affiliates, if a participant’s service relationship with us or any of our affiliates (referred to in this Proposal 4 as “continuous service”) terminates (other than for cause (as defined in the 2020 Plan) or the participant’s death or disability (as defined in the 2020 Plan)), the participant may exercise any vested stock options for up to three months following the participant’s termination of continuous service. Except as otherwise provided in a participant’s stock option agreement or other written agreement with us or one of our affiliates, if a participant’s continuous service terminates due to the participant’s disability, the participant may exercise any vested stock options for up to 12 months following the participant’s termination due to the participant’s disability. Except as otherwise provided in a participant’s stock option agreement or other written agreement with us or one of our affiliates, if a participant’s continuous service terminates due to the participant’s death (or the participant dies within a specified period following termination of continuous service), the participant’s beneficiary may exercise any vested stock options for up to 18 months following the participant’s death. Except as explicitly provided otherwise in a participant’s stock option agreement or other written agreement with us or one of our affiliates, if a participant’s continuous service is terminated for cause, all stock options held by the participant will terminate upon the participant’s termination of continuous service and the participant will be prohibited from exercising any stock option from and after such termination date. Except as otherwise provided in a participant’s stock option agreement or other written agreement with us or one of our affiliates, the term of a stock option may be extended if a participant’s continuous service terminates for any reason other than for cause and, at any time during the applicable post-termination exercise period, the exercise of the stock option would be prohibited by applicable laws or the sale of any common stock received upon such exercise would violate our insider trading policy. In no event, however, may a stock option be exercised after its original expiration date.

Acceptable forms of consideration for the purchase of our common stock pursuant to the exercise of a stock option under the 2020 Plan will be determined by the Plan Administrator and may include payment: (i) by cash, check, bank draft or money order payable to us; (ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board; (iii) by delivery to us of shares of our common stock (either by actual delivery or attestation); (iv) by a net exercise arrangement (for NSOs only); or (v) in other legal consideration approved by the Plan Administrator.

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Stock options granted under the 2020 Plan may become exercisable in cumulative increments, or “vest,” as determined by the Plan Administrator at the rate specified in the stock option agreement. Shares covered by different stock options granted under the 2020 Plan may be subject to different vesting schedules as the Plan Administrator may determine.

The Plan Administrator may impose limitations on the transferability of stock options granted under the 2020 Plan in its discretion. Generally, a participant may not transfer a stock option granted under the 2020 Plan other than by will or the laws of descent and distribution or, subject to approval by the Plan Administrator, pursuant to a domestic relations order. However, the Plan Administrator may permit transfer of a stock option in a manner that is not prohibited by applicable tax and securities laws. Options may not be transferred to a third party financial institution for value.

Limitations on Incentive Stock Options

In accordance with current federal tax laws, the aggregate fair market value, determined at the time of grant, of shares of our common stock with respect to ISOs that are exercisable for the first time by a participant during any calendar year under all of our stock plans may not exceed \$100,000. The stock options or portions of stock options that exceed this limit or otherwise fail to qualify as ISOs are treated as NSOs. No ISO may be granted to any person who, at the time of grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power unless the following conditions are satisfied:

- the exercise price of the ISO must be at least 110% of the fair market value of the common stock subject to the ISO on the date of grant; and
- the term of the ISO must not exceed five years from the date of grant.

Subject to adjustment for certain changes in our capitalization, the aggregate maximum number of shares of our common stock that may be issued pursuant to the exercise of ISOs under the 2020 Plan is 30,238,690 shares.

Stock Appreciation Rights

Stock appreciation rights may be granted under the 2020 Plan pursuant to stock appreciation right agreements. Each stock appreciation right is denominated in common stock share equivalents. The strike price of each stock appreciation right will be determined by the Plan Administrator, but will in no event be less than 100% of the fair market value of the common stock subject to the stock appreciation right on the date of grant. The term of stock appreciation rights granted under the 2020 Plan may not exceed ten years from the date of grant. The Plan Administrator may also impose restrictions or conditions upon the vesting of stock appreciation rights that it deems appropriate. The appreciation distribution payable upon exercise of a stock appreciation right may be paid in shares of our common stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the stock appreciation right agreement. Stock appreciation rights will be subject to the same conditions upon termination of continuous service and restrictions on transfer as stock options under the 2020 Plan.

Restricted Stock Awards

Restricted stock awards may be granted under the 2020 Plan pursuant to restricted stock award agreements. A restricted stock award may be granted in consideration for cash, check, bank draft or money order payable to us, the participant’s services performed for us, or any other form of legal consideration acceptable to the Plan Administrator. Shares of our common stock acquired under a restricted stock award may be subject to forfeiture to or repurchase by us in accordance with a vesting schedule to be determined by the Plan Administrator. Rights to acquire shares of our common stock under a restricted stock award may be transferred only upon such terms and conditions as are set forth in the restricted stock award agreement. Upon a participant’s termination of continuous service for any reason, any shares subject to restricted stock awards held by the participant that have not vested as of such termination date may be forfeited to or repurchased by us.

Restricted Stock Unit Awards

Restricted stock unit awards may be granted under the 2020 Plan pursuant to restricted stock unit award agreements. Payment of any purchase price may be made in any form of legal consideration acceptable to the Plan Administrator. A restricted stock unit award may be settled by the delivery of shares of our common stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the restricted stock unit award agreement. Restricted stock unit awards may be subject to vesting in accordance with a vesting schedule to be determined by the Plan Administrator. Except as otherwise provided in a participant's restricted stock unit award agreement or other written agreement with us, restricted stock units that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

Performance Awards

The 2020 Plan allows us to grant performance awards. A performance award is an award that may vest or may be exercised, or that may become earned and paid, contingent upon the attainment of certain performance goals during a performance period. A performance award may require the completion of a specified period of continuous service. The length of any performance period, the performance goals to be achieved during the performance period, and the measure of whether and to what degree such performance goals have been attained will be determined by the Plan Administrator in its discretion. In addition, to the extent permitted by applicable law and the applicable award agreement, the Plan Administrator may determine that cash may be used in payment of performance awards.

Performance goals under the 2020 Plan will be established by the board of directors for a performance period. The performance criteria used to establish such goals may be based on any measure of performance selected by the board of directors.

Performance goals may be based on a Company-wide basis, with respect to one or more business units, divisions, affiliates or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Plan Administrator (i) in the award agreement at the time the award is granted or (ii) in such other document setting forth the performance goals at the time the performance goals are established, the Plan Administrator will appropriately make adjustments in the method of calculating the attainment of the performance goals for a performance period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company's bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; and (12) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the U.S. Food and Drug Administration or any other regulatory body.

In addition, the Plan Administrator retains the discretion to define the manner of calculating the performance criteria it selects to use for a performance period and to reduce, increase or eliminate the compensation or economic benefit due upon the attainment of any performance goal.

Clawback Policy

Awards granted under the 2020 Plan will be subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law, and any other clawback policy that the Company adopts. In addition, the board of directors may impose such other clawback, recovery or recoupment provisions in an award agreement as the board of directors determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of common stock or other cash or property upon the occurrence of cause.

Changes to Capital Structure

In the event of certain capitalization adjustments, the Plan Administrator will appropriately and proportionately adjust: (i) the class(es) and maximum number of shares of our common stock subject to the 2020 Plan; (ii) the class(es) and maximum number of shares of our common stock that may be issued pursuant to the exercise of ISOs; and (iii) the class(es) and number of shares of our common stock and the exercise, strike or purchase price per share of our common stock subject to outstanding awards.

Corporate Transaction and Change in Control

The following applies to each outstanding award under the 2020 Plan in the event of a corporate transaction (as defined in the 2020 Plan and described below) or a change in control (as defined in the 2020 Plan and described below), unless provided otherwise in the applicable award agreement or in any other written agreement between a participant and the Company or an affiliate. For purposes of this Proposal 4, the term “Transaction” will mean such corporate transaction or change in control.

In the event of a Transaction, any awards outstanding under the 2020 Plan may be assumed, continued or substituted for by any surviving or acquiring corporation (or its parent company) (such entity, the “acquiring entity”), and any reacquisition or repurchase rights held by us with respect to the award may be assigned to the acquiring entity. If the acquiring entity does not assume, continue or substitute for such awards, then with respect to any such awards that are held by participants whose continuous service has not terminated prior to the effective time of the Transaction (such participants, the “current participants”), the vesting (and exercisability, if applicable) of such awards will be accelerated in full to a date prior to the effective time of the Transaction (contingent upon the effectiveness of the Transaction), and such awards will terminate if not exercised (if applicable) at or prior to the effective time of the Transaction, and any reacquisition or repurchase rights held by us with respect to such awards will lapse (contingent upon the effectiveness of the Transaction). With respect to the vesting of performance awards that will accelerate upon the occurrence of a Transaction and that have multiple vesting levels depending on the level of performance, unless otherwise provided in the relevant award agreement, the vesting of such performance awards will accelerate at 100% of the target level upon the occurrence of the Transaction. If the acquiring entity does not assume, continue or substitute for such awards, then any such awards that are held by persons other than current participants will terminate if not exercised (if applicable) at or prior to the effective time of the Transaction, except that any reacquisition or repurchase rights held by us with respect to such awards will not terminate and may continue to be exercised notwithstanding the Transaction.

In the event an award will terminate if not exercised at or prior to the effective time of a Transaction, the Plan Administrator may provide that the holder of such award may not exercise such award but instead will receive a payment equal in value to the excess, if any, of (i) the value of the property the participant would have received upon the exercise of the award, over (ii) any exercise price payable by such holder in connection with such exercise.

Under the 2020 Plan, a “corporate transaction” generally means the consummation of any one or more of the following events: (1) a sale or other disposition of all or substantially all of our assets; (2) a sale or other

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disposition of at least 50% of our outstanding securities; (3) a merger, consolidation or similar transaction where we do not survive the transaction; or (4) a merger, consolidation or similar transaction where we do survive the transaction but the shares of our common stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction.

Under the 2020 Plan, a “change in control” generally means the occurrence of any one or more of the following events: (1) the acquisition by any person, entity or group of our securities representing more than 50% of the combined voting power of our then outstanding securities, other than by virtue of a merger, consolidation, or similar transaction; (2) a consummated merger, consolidation or similar transaction in which our stockholders immediately before such transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity) in substantially the same proportions as their ownership immediately prior to such transaction; (3) a consummated sale, lease, exclusive license or other disposition of all or substantially all of our assets, other than to an entity, more than 50% of the combined voting power of which is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction; or (4) when a majority of our board of directors becomes comprised of individuals who were not serving on our board of directors on the date the 2020 Plan was adopted by our board of directors (the “incumbent board of directors”), or whose nomination, appointment, or election was not approved by a majority of the incumbent board of directors still in office.

Plan Amendments and Termination

The Plan Administrator will have the authority to amend or terminate the 2020 Plan at any time. However, except as otherwise provided in the 2020 Plan, no amendment or termination of the 2020 Plan may materially impair a participant’s rights under his or her outstanding awards without the participant’s consent. We will obtain stockholder approval of any amendment to the 2020 Plan as required by applicable law and listing requirements.

U.S. Federal Income Tax Consequences

The following is a summary of the principal United States federal income tax consequences to participants and us with respect to participation in the 2020 Plan. This summary is not intended to be exhaustive and does not discuss the income tax laws of any local, state or foreign jurisdiction in which a participant may reside. The information is based upon current federal income tax rules and therefore is subject to change when those rules change. Because the tax consequences to any participant may depend on his or her particular situation, each participant should consult the participant’s tax adviser regarding the federal, state, local and other tax consequences of the grant or exercise of an award or the disposition of stock acquired the 2020 Plan. The 2020 Plan is not qualified under the provisions of Section 401(a) of the Internal Revenue Code of 1986, as amended, (the “Code”) and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974. Our ability to realize the benefit of any tax deductions described below depends on our generation of taxable income as well as the requirement of reasonableness and the satisfaction of our tax reporting obligations.

Nonstatutory Stock Options

Generally, there is no taxation upon the grant of an NSO if the stock option is granted with an exercise price equal to the fair market value of the underlying stock on the grant date. Upon exercise, a participant will recognize ordinary income equal to the excess, if any, of the fair market value of the underlying stock on the date of exercise of the stock option over the exercise price. If the participant is employed by us or one of our affiliates, that income will be subject to withholding taxes. The participant’s tax basis in those shares will be equal to his or her fair market value on the date of exercise of the stock option, and the participant’s capital gain holding period for those shares will begin on that date.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant.

Incentive Stock Options

The 2020 Plan provides for the grant of stock options that are intended to qualify as “incentive stock options,” as defined in Section 422 of the Code. Under the Code, a participant generally is not subject to ordinary income tax upon the grant or exercise of an ISO. If the participant holds a share received upon exercise of an ISO for more than two years from the date the stock option was granted and more than one year from the date the stock option was exercised, which is referred to as the required holding period, the difference, if any, between the amount realized on a sale or other taxable disposition of that share and the participant’s tax basis in that share will be long-term capital gain or loss.

If, however, a participant disposes of a share acquired upon exercise of an ISO before the end of the required holding period, which is referred to as a disqualifying disposition, the participant generally will recognize ordinary income in the year of the disqualifying disposition equal to the excess, if any, of the fair market value of the share on the date of exercise of the stock option over the exercise price. However, if the sales proceeds are less than the fair market value of the share on the date of exercise of the stock option, the amount of ordinary income recognized by the participant will not exceed the gain, if any, realized on the sale. If the amount realized on a disqualifying disposition exceeds the fair market value of the share on the date of exercise of the stock option, that excess will be short-term or long-term capital gain, depending on whether the holding period for the share exceeds one year.

For purposes of the alternative minimum tax, the amount by which the fair market value of a share of stock acquired upon exercise of an ISO exceeds the exercise price of the stock option generally will be an adjustment included in the participant’s alternative minimum taxable income for the year in which the stock option is exercised. If, however, there is a disqualifying disposition of the share in the year in which the stock option is exercised, there will be no adjustment for alternative minimum tax purposes with respect to that share. In computing alternative minimum taxable income, the tax basis of a share acquired upon exercise of an ISO is increased by the amount of the adjustment taken into account with respect to that share for alternative minimum tax purposes in the year the stock option is exercised.

We are not allowed a tax deduction with respect to the grant or exercise of an ISO or the disposition of a share acquired upon exercise of an ISO after the required holding period. If there is a disqualifying disposition of a share, however, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant, subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and provided that either the employee includes that amount in income or we timely satisfy our reporting requirements with respect to that amount.

Restricted Stock Awards

Generally, the recipient of a restricted stock award will recognize ordinary income at the time the stock is received equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. If, however, the stock is not vested when it is received (for example, if the employee is required to work for a period of time in order to have the right to sell the stock), the recipient generally will not recognize income until the stock becomes vested, at which time the recipient will recognize ordinary income equal to the excess, if any, of the fair market value of the stock on the date it becomes vested over any amount paid by the recipient in exchange for the stock. A recipient may, however, file an election with the Internal Revenue Service, within 30 days following his or her receipt of the restricted stock award, to recognize ordinary income, as of the date the recipient receives the restricted stock award, equal to the excess, if any, of the fair market value of the stock on the date the restricted stock award is granted over any amount paid by the recipient for the stock.

The recipient’s basis for the determination of gain or loss upon the subsequent disposition of shares acquired from a restricted stock award will be the amount paid for such shares plus any ordinary income recognized either when the stock is received or when the stock becomes vested.

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Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock award.

Restricted Stock Unit Awards

Generally, the recipient of a restricted stock unit award structured to comply with the requirements of Section 409A of the Code or an exception to Section 409A of the Code will recognize ordinary income at the time the stock is delivered equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. To comply with the requirements of Section 409A of the Code, the stock subject to a restricted stock unit award may generally only be delivered upon one of the following events: a fixed calendar date (or dates), separation from service, death, disability or a change in control. If delivery occurs on another date, unless the restricted stock unit award otherwise complies with or qualifies for an exception to the requirements of Section 409A of the Code (including delivery upon achievement of a performance goal), in addition to the tax treatment described above, the recipient will owe an additional 20% federal tax and interest on any taxes owed.

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from a restricted stock unit award will be the amount paid for such shares plus any ordinary income recognized when the stock is delivered.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock unit award.

Stock Appreciation Rights

Generally, if a stock appreciation right is granted with an exercise price equal to the fair market value of the underlying stock on the grant date, the recipient will recognize ordinary income equal to the fair market value of the stock or cash received upon such exercise. Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the stock appreciation right.

Section 162(m) Limitations

Under Section 162(m) of the Code, compensation paid to any publicly held corporation's "covered employees" that exceeds \$1 million per taxable year for any covered employee is generally non-deductible. Awards granted under the 2020 Plan will be subject to the deduction limit under Section 162(m) of the Code and will not be eligible to qualify for the performance-based compensation exception under Section 162(m) of the Code pursuant to the transition relief provided by the Tax Cuts and Jobs Act. For further information regarding the deduction limit under Section 162(m) of the Code and such transition relief, please see the section entitled "Compensation Discussion and Analysis — Tax Deductibility of Executive Compensation."

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New Plan Benefits under 2020 Plan

The following table sets forth certain information regarding future benefits under the 2020 Plan.

<u>Name and Position</u>	<u>Dollar Value (\$)</u>	<u>Number of Shares (#)</u>
Laurence James Neil Cooper, M.D., Ph.D. <i>Chief Executive Officer</i>	(1)	(1)
David M. Mauney, M.D. <i>President</i>	(1)	(1)
Sath Shukla <i>Chief Financial Officer</i>	(1)	(1)
Robert Hadfield <i>Executive Vice President, General Counsel and Secretary</i>	(1)	(1)
Kevin G. Lafond <i>Senior Vice President – Finance Chief Accounting Officer and Treasurer</i>	(1)	(1)
All current executive officers as a group	(1)	(1)
All current directors who are not executive officers as a group	\$900,000 per calendar year (2)	(2)
All employees, including current officers who are not executive officers, as a group	(1)	(1)

- (1) Awards granted under the 2020 Plan to our executive officers and other employees are discretionary and are not subject to set benefits or amounts under the terms of the 2020 Plan, and we have not granted any awards under the 2020 Plan subject to stockholder approval of this Proposal 4. Accordingly, the benefits or amounts that will be received by or allocated to our executive officers and other employees under the 2020 Plan are not determinable.
- (2) Awards granted under the 2020 Plan to our non-employee directors are discretionary and are not subject to set benefits or amounts under the terms of the 2020 Plan. However, pursuant to our current compensation program for non-employee directors, each of our current non-employee directors is eligible to receive an annual grant with a total value of \$150,000 which is granted on December 31. Each director may elect the form of the award, which may be (i) a stock option to purchase a number of shares of common stock determined based on the Black-Scholes value of such option on the grant date (and, therefore, the number of shares subject to such stock option is not determinable at this time), (ii) a restricted stock award covering a number of shares of common stock based on the fair market value of a share of our common stock on the grant date (and, therefore, the number of shares subject to such restricted stock award is not determinable at this time) or (iii) a combination of both a stock option and restricted stock award. On and after the date of the annual meeting, any such equity awards will be granted under the 2020 Plan if this Proposal 4 is approved by our stockholders. For additional information regarding our current compensation program for non-employee directors, please see “Director Compensation” below.

Vote Required

The affirmative vote of the holders of a majority of the shares deemed present in person or represented by proxy and entitled to vote at the annual meeting will be required to approve the 2020 Plan. Abstentions will be counted toward the vote total for Proposal 4 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 proposal to approve the 2020 Equity Incentive Plan.

Proposal 5

Approval of Certificate of Amendment of the Amended and Restated Certificate of Incorporation to Increase the Total Number of Authorized Shares of Common Stock

Overview

Our board of directors has determined that it is advisable and in the best interests of the Company and in the best interests of our stockholders to amend our amended and restated certificate of incorporation (our “charter”), to increase the total number of authorized shares of common stock from 250,000,000 shares to 445,000,000 shares. On April 27, 2020, our board of directors adopted resolutions approving the proposed certificate of amendment of our charter (the “certificate of amendment”) in substantially the form attached hereto as Appendix B. At that time, our board of directors declared the proposed certificate of amendment to be advisable and in the best interests of the Company and our stockholders and is accordingly submitting the proposed certificate of amendment for approval by our stockholders.

If our stockholders approve this Proposal 5, we expect to file the certificate of amendment with the Secretary of State of the State of Delaware to increase the number of authorized shares of our common stock as soon as practicable following stockholder approval. In this regard, upon filing of the certificate of amendment with the Secretary of State of the State of Delaware, the first paragraph of section four of our charter would be amended as follows, with the proposed additions double-underlined and proposed deletions stricken through:

“4. *Number of Shares.* The total number of shares of all classes of stock that the Corporation shall have authority to issue is ~~Two Hundred Eighty Million (280,000,000)~~ Four Hundred Seventy Five Million (475,000,000) shares consisting of: ~~Two Hundred Fifty Million (250,000,000)~~ Four Hundred Forty Five Million (445,000,000) shares of common stock, \$.001 par value per share (“Common Stock”); and Thirty Million (30,000,000) shares of preferred stock, \$.001 par value per share (“Preferred Stock”).”

Of the 250,000,000 shares of our common stock currently authorized, as of the close of business on April 30, 2020, there were 214,286,337 shares of common stock outstanding. In addition to the 214,286,337 shares of common stock outstanding on April 30, 2020, as of April 30, 2020:

- 7,778,379 shares of our common stock were issuable upon the exercise of options outstanding, having a weighted-average exercise price of \$4.19 per share;
- an aggregate of 22,272,727 shares of our common stock were reserved for future issuance pursuant to outstanding warrants; and
- an aggregate of 994,775 shares of our common stock were reserved for future issuance under our 2012 Equity Plan.

The proposed certificate of amendment would increase the number of shares of common stock that the Company is authorized to issue from 250,000,000 shares of common stock to 445,000,000 shares of common stock, representing an increase of 195,000,000 shares of authorized common stock, with a corresponding increase in the total authorized capital stock, which includes common stock and preferred stock, from 280,000,000 shares to 475,000,000 shares.

Reasons for the Increase in Authorized Shares

At present, the board of directors has no immediate plans, arrangements or understandings to issue the additional shares of common stock, other than in connection with the 2020 Plan. However, the board of directors desires to have the shares available to provide additional flexibility to use Company common stock for business and financial purposes in the future as well to have sufficient shares available to provide appropriate equity incentives for our employees. The additional shares may be used for various purposes without further stockholder

approval. These purposes may include establishing strategic relationships with other companies; expanding our business through the acquisition of other businesses, therapeutics or product candidates; raising capital; providing equity incentives to employees, officers, directors, consultants and/or advisors; stock splits and stock dividends; and other purposes. For example, we will need to raise substantial additional capital to, among other things, fund our operations, conduct and/or complete clinical trials, continue our research and development activities, seek regulatory approval for our product candidates and commercialize our product candidates, if any such product candidates receive regulatory approval for commercial sale, and the additional shares may be used for a financing if we have an appropriate opportunity. If this Proposal 5 is not approved by our stockholders, it is possible that our business development and financing alternatives for us may be limited by the lack of sufficient unissued and unreserved authorized shares of common stock, and stockholder value may be harmed, perhaps severely, by this limitation. In addition, our success depends in part on our continued ability to attract, retain and motivate highly qualified management and clinical and scientific personnel, and if this Proposal 5 is not approved by our stockholders, the lack of sufficient unissued and unreserved authorized shares of common stock to provide future equity incentive opportunities that our compensation committee deems appropriate could adversely impact our ability to achieve these goals. In summary, if our stockholders do not approve this Proposal 5, we may not be able to access the capital markets, complete corporate collaborations or partnerships, attract, retain and motivate employees, and pursue other business opportunities integral to our growth and success, all of which could severely harm our business and our prospects.

Effects of the Increase in Authorized Shares

The additional common stock to be authorized by stockholder approval of this Proposal 5 would have rights identical to the currently outstanding shares of our common stock. Approval of this Proposal 5 and issuance of the additional authorized shares of common stock would not affect the rights of the holders of currently outstanding shares of our common stock, except for effects incidental to increasing the number of shares of our common stock outstanding, such as dilution of any earnings per share and voting rights of current holders of common stock. The additional shares of common stock authorized by the approval of this Proposal 5 could be issued by our board of directors without further vote of our stockholders except as may be required in particular cases by our charter, applicable law, regulatory agencies or the rules of the Nasdaq. Under our charter, stockholders do not have preemptive rights to subscribe to additional securities that may be issued by us, which means that current stockholders do not have a prior right thereunder to purchase any new issue of common stock in order to maintain their proportionate ownership interests in our Company.

The proposed certificate of amendment to increase the number of authorized shares of our common stock could, under certain circumstances, have an anti-takeover effect. The additional shares of common stock that would become available for issuance if this Proposal 5 is approved could also be used by us to oppose a hostile takeover attempt or to delay or prevent changes in control or our management. For example, without further stockholder approval, the board could adopt a “poison pill” which would, under certain circumstances related to an acquisition of our securities not approved by the board, give certain holders the right to acquire additional shares of common stock at a low price, or the board could strategically sell shares of common stock in a private transaction to purchasers who would oppose a takeover or favor the current board. Although this Proposal 5 to increase the authorized common stock has been prompted by business and financial considerations and not by the threat of any hostile takeover attempt (nor is the board currently aware of any such attempts directed at us), nevertheless, stockholders should be aware that approval of this Proposal 5 could facilitate future efforts by us to deter or prevent changes in control, including transactions in which the stockholders might otherwise receive a premium for their shares over then current market prices.

Abandonment

Although we currently expect that, if this Proposal 5 is approved by our stockholders, we will file the certificate of amendment of our charter with the Secretary of State of the State of Delaware as soon as practicable following stockholder approval, notwithstanding approval of this Proposal 5 by our stockholders, our board of

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directors may, in its sole discretion, abandon the proposed certificate of amendment of our charter and determine, prior to the filing of certificate of amendment of our charter with the Secretary of State of the State of Delaware, not to effect the proposed amendment to our charter to increase the number of authorized shares of our common stock from 250,000,000 shares to 445,000,000 shares. If this Proposal 5 is approved by our stockholders and our board of directors determines to exercise such discretion, we will publicly disclose that fact and our board of directors' reason or reasons for its determination.

Vote Required

The affirmative vote of the holders of a majority of the outstanding shares on the record date. Abstentions will be counted toward the vote total for Proposal 5 and will have the same effect as "Against" votes.

The board recommends that you vote "FOR" the proposal to approve the amendment of our charter.

STOCKHOLDER PROPOSALS FOR THE 2021 ANNUAL MEETING OF STOCKHOLDERS

For a proposal to be considered for inclusion in our proxy materials for presentation at the 2021 annual meeting of stockholders pursuant to Rule 14a-8 under the Exchange Act, the proposal 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 January 19, 2021, unless the date of 2021 annual meeting of stockholders is changed by more than 30 days from the one-year anniversary of this year's annual meeting, in which case the deadline will be a reasonable time before we begin to distribute the proxy materials for the 2021 annual meeting of stockholders. 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 as to whether 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 2021 annual meeting of stockholders but does not notify us before March 15, 2021 (or a reasonable time before we begin to distribute the proxy materials for the 2021 annual meeting of stockholders if the date of the 2021 annual meeting of stockholders is changed by more than 30 days from the one-year anniversary of this year's annual meeting), 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**Our Board of Directors**

Set forth below are the names and certain information about each of our directors as of April 29, 2020. The information presented includes each director's age, principal occupation and business experience for the past five years and the names of other public companies of which he or she has served as a director during the past five years. 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 serve on the board following election at the annual meeting.

Name	Positions and Offices Held	Director Since	Age
Laurence James Neil Cooper, M.D., Ph.D.	Chief Executive Officer and Director	2018	55
Scott Tarriff	Chairman of the Board of Directors	2015	60
Christopher Bowden, M.D.	Director	2019	59
Scott Braunstein, M.D.	Director	2018	56
Elan Z. Ezickson	Director	2018	56
Heidi Hagen	Director	2019	51
Douglas W. Pagán	Director	2018	48

Laurence James Neil Cooper, M.D., Ph.D.
Chief Executive Officer and Director

Dr. Cooper has served as our Chief Executive Officer since May 2015 and as a director since October 2018. Prior to joining us, Dr. Cooper led the Pediatric Cell Therapy service (formally named the bone marrow transplantation ("BMT") program) as a tenured professor at the University of Texas M.D. Anderson Cancer Center ("MD Anderson"), where he had worked since 2006. In addition to caring for children, adolescents and young adults undergoing autologous and allogeneic BMT at MD Anderson, he led a laboratory translating immunology into clinical practice. This program had multiple investigator-initiated trials that infused T cells and NK cells to target malignancies. Dr. Cooper also holds an appointment as a Visiting Scientist at MD Anderson. Dr. Cooper obtained his B.A. 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 BMT at the Fred Hutchinson Cancer Research Center in Seattle.

The board believes that Dr. Cooper's insight into our operations and strategy as a result of being our Chief Executive Officer, and his scientific expertise and industry background qualifies him to serve on the board.

Scott Tarriff
Chairman of the Board

Mr. Tarriff is the chair of our board. He has served as a member of our board since September 2015 and served as the board's non-executive Lead Director from August 2018 until April 2019 when he was appointed our chair. Mr. Tarriff has served as the 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. Tarriff 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. Prior to that, Mr. Tarriff held various positions with Bristol-Meyers Squibb, a publicly-traded biopharmaceutical company, including senior director of marketing. Mr. Tarriff has served as a member of the board of directors 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 until its acquisition by Forest Laboratories, Inc. in April 2011. Mr. Tarriff holds a B.S. in marketing from Pennsylvania State University and an M.B.A. from Rider College.

Mr. Tarriff has demonstrated an ability to dedicate a significant deal of time and focus on his duties as a member of our board and the board feels it is important for Mr. Tarriff to remain a director given the continuity Mr. Tarriff provides the board's new members and his depth of experience with our programs. 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 as the board's chair.

Christopher Bowden, M.D.
Director

Dr. Bowden, an oncology drug development executive with more than 20 years leadership experience including the approval of several cancer medicines, has served as a member of our board since October 2019. He has been the chief medical officer of Agios Pharmaceuticals since May 2014. Previously, Dr. Bowden was vice president product development oncology, at Genentech for eight years. From 2003 to 2006, he was the executive director for EMEA regions for Bristol-Myers Squibb. Earlier, Dr. Bowden held positions of increasing responsibility in oncology clinical development, at Pharmacia Corporation and Janssen Pharmaceutical. Prior to industry, Dr. Bowden was on the oncology faculty at the University of Virginia Health Science Center. Since 2017, Dr. Bowden has served as a member of the board of directors of miRagen Therapeutics, Inc., a publicly-traded biopharmaceutical company discovering and developing proprietary RNA-targeted therapies with a specific focus on microRNAs. Dr. Bowden received his M.D. from Hahnemann University School of Medicine followed by internal medicine training at Roger Williams Medical Center and the Providence VA Medical Center, Rhode Island. He completed his medical oncology fellowship at the National Cancer Institute Medicine Branch. Dr. Bowden is board certified in internal medicine and medical oncology.

The board believes that Dr. Bowden's extensive background in drug development and leadership experience at several leading life science and pharmaceutical companies qualifies him to serve on the board.

Scott Braunstein, M.D.
Director

Dr. Braunstein has served as a member of our board since September 2018. Dr. Braunstein has served as the chief executive officer of Marinus Pharmaceuticals, Inc., a publicly-traded

pharmaceuticals company, since August 2019, and as a member of its board of directors since September 2018. Dr. Braunstein is also an operating partner at Aisling Capital, a private investment firm, a position he has held since August 2015. From 2015 to 2018, he held positions of increasing responsibility at Pacira Pharmaceuticals, Inc., a publicly traded specialty pharmaceutical company, including most recently serving as its Chief Operating Officer. His prior roles at Pacira including serving as its Senior Vice President of Strategy and Chief Strategy Officer. Prior to then, Dr. Braunstein served as a healthcare portfolio manager at Everpoint Asset Management from 2014 through 2015. From 2002 to 2014, he worked in various positions at JP Morgan Asset Management, a division of JPMorgan Chase & Co., most recently as a managing director, senior portfolio manager for the JPM Global Healthcare Fund and the JPM asset global equity analyst for the U.S. pharmaceutical and biotechnology industry. Dr. Braunstein has served as a member of the board of directors of Trevena, Inc., a traded pharmaceutical company, since September 2018, on the board of directors of Constellation Pharmaceuticals, a publicly traded biopharmaceutical company, since February 2019, and on the board of directors of Artara Therapeutics, Inc., a publicly-traded company, since May 2018. Dr. Braunstein previously served as a member of the board of directors of Esperion Therapeutics, Inc. from 2015 until 2020.

Dr. Braunstein is board certified in internal medicine, having completed his residency at the New York Hospital/Cornell Medical Center, and achieved the title of assistant clinical professor of medicine at Albert Einstein College of Medicine and for Columbia University Medical Center. He earned his B.S. from Cornell University and his M.D. from the Albert Einstein College of Medicine at Yeshiva University.

The board believes that Dr. Braunstein's experience as a senior executive in the pharmaceutical and biotechnology industries as well as his prior medical background and training enables Dr. Braunstein to provide strategic guidance to us and qualifies him to serve on the board.

Elan Z. Ezickson
Director

Mr. Ezickson has served as a member of our board since September 2018. Mr. Ezickson served as Chief Operating Officer & Head of Corporate Development for Scholar Rock Holding Corporation from August 2014 until his retirement in December 2018. Prior to Scholar Rock, Mr. Ezickson served as Executive Vice President and Chief Operating Officer of Aveo Pharmaceuticals, Inc., where he worked from 2003 to July 2013. Previously, Mr. Ezickson worked at Biogen Inc. in roles of increasing responsibility, including serving as the President of Biogen Canada, Program Executive and Associate General Counsel. Since December 2019, Mr. Ezickson has served on the board of directors of Marinus Pharmaceuticals, Inc., a publicly-held company focused on developing and commercializing innovative therapeutics to treat patients suffering from rare seizure disorders. Mr. Ezickson holds a B.A. in Political Science from Yale University and a J.D. from the Columbia University School of Law.

The board believes that Mr. Ezickson's deep operating and management experience at several leading life science companies, as well as his legal expertise and operational experience, qualifies him to serve on the board.

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Heidi Hagen
Director

Ms. Hagen has served as a member of our board since June 2019. Ms. Hagen has held the position of a biotechnology and pharmaceutical operations and technology consultant with HH Consulting LLC since October 2012. Since October 2015, Ms. Hagen has served as Co-founder and Advisor for Vineti, Inc., a privately-held company that develops and sells cloud-based software platforms for ordering, manufacturing and delivering personalized medicines. Previously, Ms. Hagen served as interim Chief Commercial Officer at ZappRx, Inc. from January 2015 to June 2015. Prior to that, Ms. Hagen served as Global Chief Operating Officer at Sotio LLC, a biotechnology company developing new therapies for the treatment of cancer and autoimmune diseases using its immunotherapy platform and proprietary cell-based technologies, from March 2013 to April 2014. Prior to joining Sotio, Ms. Hagen was Senior Vice President of Operations at Dendreon Corporation from 2002 to 2012, where she was responsible for, among other duties, manufacturing and supply chain operations. Prior to joining Dendreon, Ms. Hagen spent nearly ten years at Immunex Corporation, where she held several positions in drug development and supply chain and operations management. Ms. Hagen has served on the board of directors of Vericel Inc., a publicly-held company developing advanced cell therapies and specialty biologics for the sports medicine and severe burn care markets, since August 2013, and on the board of directors of Lykan Biosciences LLC, a privately held contract manufacturing company, since June 2019. Ms. Hagen earned her B.S. in cell and molecular biology, M.S. in bioengineering, and MBA at the University of Washington.

The board believes that Ms. Hagen's background and extensive experience as a life sciences executive, with a particular focus on cell therapy manufacturing qualifies her to serve on the board.

Douglas W. Pagán
Director

Mr. Pagán has served as a member of our board since September 2018. Mr. Pagán currently serves as Chief Financial Officer of KSQ Therapeutics, a position he has held since April 2019. Prior to KSQ Therapeutics, Mr. Pagán was the Chief Financial Officer of Paratek Pharmaceuticals, Inc. from December 2014 until April 2019, where he was responsible for fundraising, financial reporting, investor relations, and strategic planning. Prior to that, Mr. Pagán served as Vice President, Finance at Acceleron Pharma Inc., which he joined in 2008. There, he was responsible for strategic and financial planning, accounting, SEC reporting, treasury and financial operations, including undertaking a significant role in the company's initial public offering. Prior to working at Acceleron, Mr. Pagán served in strategic and financial management roles at Biogen Idec and Bristol-Myers Squibb. Previously, Mr. Pagán worked in healthcare investment banking at J.P. Morgan, as well as pharmaceutical operational roles at Johnson & Johnson. Mr. Pagán received his B.S.E. in Chemical Engineering from Princeton University and his M.B.A. from Columbia Business School.

The board believes that Mr. Pagán's experience as a financial executive in life science and pharmaceutical companies, as well as his prior investment banking experience, allows Mr. Pagan to provide financial and strategic guidance to us and qualifies him to serve on the board.

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Our Executive Officers

The following table sets forth certain information concerning our executive officers as of April 29, 2020.

<u>Name</u>	<u>Position(s)</u>	<u>Age</u>
Laurence James Neil Cooper, M.D., Ph.D.	Chief Executive Officer and Director	55
David M. Mauney, M.D.	President	52
Satyavrat Shukla	Chief Financial Officer	48
Robert Hadfield	Executive Vice President, General Counsel, Secretary and Chief Compliance Officer	42
Jill Buck	Executive Vice President, General Manager, Gene Therapy	46
Eleanor de Groot, Ph.D.	Executive Vice President, General Manager, Cell Therapy	51
Kevin G. Lafond	Sr. Vice President Finance, Chief Accounting Officer and Treasurer	64

Laurence James Neil Cooper, M.D., Ph.D.
Chief Executive Officer and Director

Dr. Cooper's biography is included above under the section titled "Our Board of Directors."

David M. Mauney, M.D.
President

Dr. Mauney has served as our President since December 2018. Prior to his appointment as President, Dr. Mauney served as our Executive Vice President and Chief Business Officer from September 2017 to December 2018 and as our Interim Chief Operating Officer from November 2017 until December 2018. Prior to joining us, he served as managing director of Harvest Capital Strategies LLC, where he had worked since 2015. From 2000 to 2015, Dr. Mauney served as managing director of De Novo Ventures, a health care investment firm he co-founded. Dr. Mauney holds a B.A. from Duke University and an M.D. from Dartmouth Medical School.

Satyavrat Shukla
Chief Financial Officer

Mr. Shukla has served as our Chief Financial Officer since July 2019. Prior to joining us, Mr. Shukla served in leadership roles at Vertex Pharmaceuticals from July 2012 until July 2019, most recently as Vice President and Head of Corporate Finance, where he led Vertex's long-range planning, annual budgeting and investor relations analytics processes. Prior to Vertex, Mr. Shukla was a Principal at Cornerstone Research, an economic and financial analysis firm, where he led large, multi-disciplinary teams providing consulting services spanning financial modeling, assessment of product lines and businesses, and evaluation of operating and financial strategy and performance for life science clients. Prior to Cornerstone, he worked for finance consulting firms LECG and Putnam and Hayes & Bartlett. Mr. Shukla earned a BA in Economics from Harvard University and an MBA in Finance and Strategy from Yale University. He also holds the Chartered Financial Analyst designation.

Robert Hadfield,
*Executive Vice President,
General Counsel, Secretary and Chief Compliance Officer*

Mr. Hadfield has served as our Executive Vice President, General Counsel, Secretary and Chief Compliance Officer since December 2018 and as our General Counsel and Secretary since April 2018. Previously, Mr. Hadfield was the General Counsel of Longwood Fund, a health care venture capital fund, from November 2017 until April 2018. Prior to Longwood Fund, Mr. Hadfield was the General Counsel of Flex Pharma, Inc. from April 2014 until November

Jill Buck
Executive Vice President, General Manager, Gene Therapy

2017. Mr. Hadfield was an attorney in the business department of Cooley LLP from August 2007 to August 2011 and then from April 2012 to April 2014. From August 2011 to April 2012, Mr. Hadfield served as the Corporate Counsel at Kiva Systems, Inc. prior to its acquisition by Amazon.com, Inc. Mr. Hadfield began his career as a financial analyst in the health care investment banking group of Cowen Inc. Mr. Hadfield holds a B.S. degree in Finance from Providence College and a J.D. from the Georgetown University Law Center.

Ms. Buck has served as our Executive Vice President, General Manager Gene Therapy since January 2019 and served as our Senior Vice President of Clinical Operations from January 2017 to January 2019, and as our Vice President of Clinical Operations from September 2015 to January 2017. Previously, Ms. Buck served as Group Vice President of Global Clinical Operations at Synageva Biopharm Corp from January 2014 to September of 2015, and Vice President of Global Clinical Operations from June 2013 to January 2014 where she oversaw the teams responsible for the clinical trials resulting in US, EU and Japanese approvals of sebelipase alfa for LAL Deficiency. Prior to Synageva, Ms. Buck held roles of increasing responsibility in Clinical Operations at the Company, Averion International, Control Delivery Systems and The TIMI Study Group at Brigham and Women's Hospital. Ms. Buck holds a BA degree in English and Communications from Boston College.

Eleanor de Groot, Ph.D.
Executive Vice President, General Manager, Cell Therapy

Dr. de Groot has served as our Executive Vice President, General Manager Cell Therapy since January 2019 and oversees our CAR-T and TCR-T cell therapy platform, including the collaboration with MD Anderson. She initially joined us in July 2015 as our Senior Vice President, Program Management and Business Development. Prior to joining us, Dr. de Groot was Vice President of Technical Operations and Project Planning and Management at Helsinn Therapeutics US, Inc. While at Helsinn and its predecessor companies, Sapphire Therapeutics and Rejuvenon Corporation, Dr. de Groot held multiple roles of increasing responsibility, leading technical operations, in particular chemistry, manufacturing, and controls (CMC) development for its drug candidates from preclinical through Phase III, from April 2002 to July 2015. Prior to Helsinn, Dr. de Groot was a staff engineer at Guilford Pharmaceuticals (now Eisai) and a process engineer at Shell Chemical Company. She earned Ph.D. and M.S. degrees in chemical engineering from Stanford University in 1995 and 1991, respectively, and a B.S. in chemical engineering from Massachusetts Institute of Technology (MIT) in 1990. Dr. de Groot received an M.B.A. degree from Rice University in 2014.

Kevin G. Lafond
Sr. Vice President – Finance, Chief Accounting Officer and Treasurer

Mr. Lafond has served as our Sr. Vice President Finance, Chief Accounting Officer and Treasurer since June 2013 and is our principal accounting officer. Previously, Mr. Lafond served as our 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, 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.

There are no family relationships among any of our directors, director nominees or executive officers. None of our executive officers is related by blood, marriage or adoption to any of our 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 material elements of 2019 compensation of our named executive officers. As discussed in Proposal 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 2019, our named executive officers were:

- Dr. Laurence James Neil Cooper, our Chief Executive Officer;
- Dr. David M. Mauney, our President;
- Satyavrat Shukla, our Chief Financial Officer;
- Robert Hadfield, our Executive Vice President, General Counsel, Secretary and Chief Compliance Officer; and
- Kevin G. Lafond, our Senior Vice President — Finance, Chief Accounting Officer and Treasurer.

Executive Summary

Business Highlights

In 2019, we laid the groundwork to achieve success in each of our clinical programs, as well as created the infrastructure to support our growth and ultimately the manufacturing capacity for our clinical trials.

TCR Program

- The U.S. Food and Drug Administration (“FDA”) cleared the investigational new drug (“IND”) application submitted by the National Cancer Institute (“NCI”) for a Phase II clinical trial evaluating autologous peripheral blood lymphocytes genetically modified with the *Sleeping Beauty* system to express T-cell receptors (“TCRs”) that recognize neoantigens expressed by the patients’ own solid tumor.
- We entered into a patent license agreement with the NCI pursuant to which we now hold an exclusive, worldwide license to certain intellectual property to develop and commercialize patient-derived (autologous), peripheral blood T-cell therapy products engineered by transposon-mediated gene transfer to express TCRs reactive to “hotspot” mutations.
- We entered into a research and development agreement with University of Texas M.D. Anderson Cancer Center (“MD Anderson”) pursuant to which the parties agreed to collaborate with respect to our *Sleeping Beauty* immunotherapy program, which uses non-viral gene transfer to stably express and clinically evaluate neoantigen-specific TCRs.

Controlled IL-12 Program

- We presented encouraging clinical data for our Controlled IL-12 program for the treatment of recurrent glioblastoma multiforme (“rGBM”) at the 2019 Society for Neuro-Oncology annual meeting.

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- We commenced enrollment in our phase 2 clinical trial evaluating Controlled IL-12 in combination with Regeneron’s PD-1 antibody Libtayo® (cemiplimab-rwlc) for the treatment of rGBM in adults.
- We completed enrollment of the third and final dose escalation cohort of a phase 1 clinical trial evaluating Controlled IL-12 in combination with Bristol-Myers Squibb Company’s PD-1 inhibitor OPDIVO® (nivolumab) for the treatment of rGBM in adults.
- The FDA granted Fast Track Designation for our Controlled IL-12 program for the treatment of recurrent or progressive glioblastoma multiforme in adults.

CAR+ T Program

- We closed our joint venture with TriArm Therapeutics Ltd, launching Eden BioCell, Ltd., which will lead clinical development and commercialization of autologous *Sleeping Beauty*-generated CD19-specific rapid personalized manufacturing (“RPM”) CAR+ T therapies in Greater China.
- Our IND application for a phase 1 clinical trial in the United States infusing allogenic CD19-specific CAR+ T therapies manufactured using our RPM technology to produce and administer T cells in two days or less after gene transfer was cleared by the FDA.

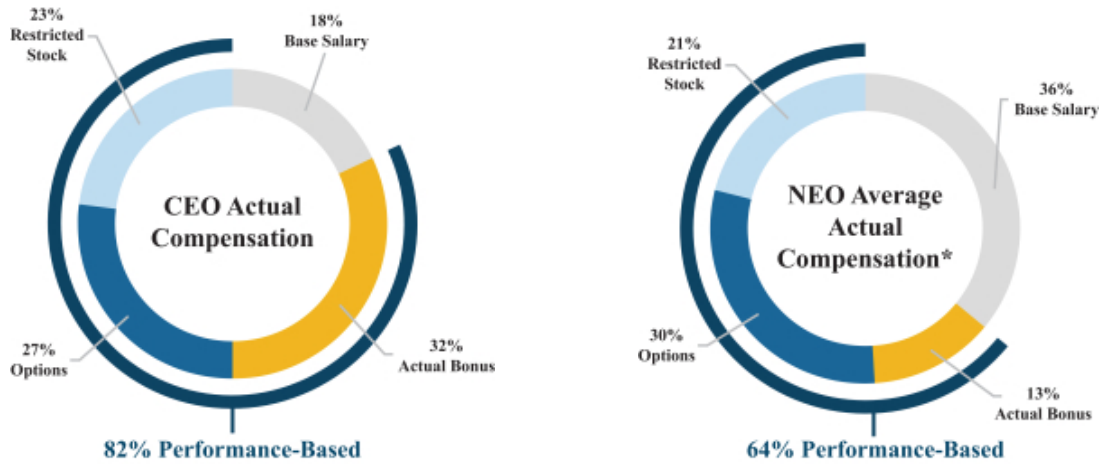
Expanding Resources

- We expanded the size of our board of directors and appointed Heidi Hagen and Christopher Bowden, M.D. as directors.
- In July and September 2019, we raised \$52.5 million, before deducting placement agent fees and other related expenses, in a private placement. In the transaction, existing investors exercised existing warrants with an exercise price of \$3.01 per share and received new warrants that have an exercise price of \$7.00 per share.
- We expanded our team from 49 employees on December 31, 2018 to 70 employees on December 31, 2019, including several key hires such as Satyavrat Shukla, as our Chief Financial Officer, and Drew Deniger, Ph.D. to lead our TCR program in Houston.

Compensation Highlights

Key features of our executive compensation program include the following:

- *We tie pay to performance and emphasize “at risk” compensation.* Our compensation committee structures a significant portion of our named executive officers’ target total direct compensation (consisting of base salary, an annual performance bonus opportunity and equity awards) to be variable, at risk and tied directly to our performance over the short- and long-term. The following chart shows the portion of the 2019 total direct compensation of our Chief Executive Officer and our other named executive officers that was “at-risk” in that its value is dependent upon our achievement of corporate objectives or stock price performance, consisting of annual performance bonus earned and the accounting value of equity awards granted, as reported in our “Summary Compensation Table”:



* Average excludes Satyavrat Shukla, who was hired in 2019.

- *The annual performance bonuses are tied to meeting key corporate objectives.* Our annual performance bonus opportunities for our named executive officers are tied to our achievement of annual corporate objectives established each year. No bonuses are guaranteed.
- *We engage with our stockholders to understand their views on our executive compensation program and make changes where appropriate, as described in the section below entitled “Stockholder Engagement and Actions in Response to 2018 Advisory Vote on Named Executive Officer Compensation.”*
- *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.*
- *We have adopted stock ownership guidelines.* In April 2019, we adopted stock ownership guidelines, which ensure that our officers and directors will maintain a meaningful equity stake in our Company. These guidelines require our Chief Executive Officer to own equity interests in our Company with a value equal to 3x times his base salary, each other senior executive officer to own equity interests with a value equal to 1x time his respective base salary, and all non-employee members of our board to own equity interests with a value equal to 3x times their respective director’s annual retainer, each as calculated under our policy.
- *Our compensation committee has retained an independent compensation consultant to provide assistance in the discharge of its responsibilities.* Our compensation committee engaged Haigh and Company (“Haigh”) which advised the compensation committee on market practices.

Stockholder Engagement and Actions in Response to 2018 Advisory Vote on Executive Compensation

At our 2019 annual meeting of stockholders, our stockholders approved, on an advisory basis, the compensation of our named executive officers, as disclosed in our 2019 proxy statement. The proposal was supported by approximately 91.7% of the total votes cast, a 42.3% increase over our 2018 “say on pay” vote. We believe this increase of support was, in part, the result of the stockholder outreach that we commenced and changes we made to our executive compensation program over the past two years. Following the 2018 “say on pay” advisory vote, members of our management, and in some cases members of our board of directors, actively engaged in a dialogue with several of our largest stockholders to gain a better understanding of their views regarding our executive compensation program as well as other governance matters. Specifically, we contacted approximately 20 of our largest stockholders, and in the first and second quarters of 2019, we held informative discussions with several of our top holders who expressed interest in speaking with us.

In response to the feedback and actions resulting from our advisory vote and stockholder outreach, our board and compensation committee:

- enhanced the disclosure regarding the performance metrics for our annual performance bonus plan.
- implemented ownership guidelines pursuant to which, after a phase-in period, directors and officers will be required to maintain minimum holdings of stock options and/or our common stock.
- implemented a more traditional leadership structure for our board, with a board chair rather than lead director. Scott Tarriff, who had served as our lead director, was appointed as our chair in April 2019.
- updated our corporate governance policies to reflect the importance we place on diversity. In particular, our policies now provide that any search firm retained to assist the corporate governance and nominating committee in seeking candidates for our board of directors will be instructed to seek to include diverse candidates in terms of race, gender, geography, thought, viewpoints, backgrounds, skills, experience, and expertise.

Our compensation committee generally evaluates our compensation practices at or near the end of each year and will continue to monitor and evaluate our executive compensation program throughout the year in light of our stockholders’ views, before making any appropriate adjustments during the 2020 year-end compensation review process. Our compensation committee expects to continue to consider the outcome of our “say on pay” votes and our stockholders’ views when making future compensation decisions for our named executive officers.

Overview of our Executive Compensation Program

Objectives, Philosophy and Elements of Compensation

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 of our executive’s interests with our stockholders; and
- (iv) provide competitive total compensation opportunities, consistent with our performance, that allow us to attract, retain and motivate talented employees, including our named executive officers.

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

Compensation Element	Objective	Key Features
Base Salary (fixed cash)	To attract and retain executives.	Fixed compensation that is competitive with peer company data and that recognizes each executive's position, role, responsibility and experience.
Annual Performance Bonus (at-risk cash)	To motivate and reward the achievement of our short-term strategic and business goals that support our longer term objectives.	Target annual performance bonus opportunities, which are expressed as a percentage of base salary, are reviewed annually. Actual bonus payments are determined at the end of the year and are dependent upon the actual achievement of specific corporate performance objectives, determined by our compensation committee and our board of directors.
Equity Awards (at-risk equity)	Motivates and rewards for long-term company performance; aligns executives' interests with stockholder interests and changes in stockholder value. Attracts highly qualified executives and encourages their continued employment over the long-term.	Stock options and restricted stock awards that are subject to multi-year vesting based on continued service. Individual awards are determined based on a number of factors, including current corporate and individual performance, outstanding equity holdings and their retention value and total ownership, internal equity among executives and competitive market data provided by our compensation committee's compensation consultant.

Other Significant Factors in Determining Executive Compensation

The biotechnology industry is characterized by a very long product development cycle, including a lengthy research and development period and a rigorous approval phase involving preclinical studies, clinical trials and governmental regulatory approval. As a result, many of the traditional commercial product metrics, such as product sales, revenues and profits are irrelevant for a development-stage biotechnology company like us. Instead, the specific performance factors our compensation committee considers when determining the compensation of our named executive officers include factors related to development progress, commercialization progress, and cash/expense management, which are typical pre-commercial drug development metrics:

- key research and development achievements, including advances in our Controlled IL-12 and Cell Therapy platforms;

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- initiation and progress of clinical trials for our product candidates and continued development of our product candidate pipeline;
- expansion of our research and development infrastructure;
- achievement of scientific and regulatory milestones;
- establishment and maintenance of key strategic relationships, collaborations and new business initiatives; and
- achievement of extension of cash runway, including financings and other capital raising initiatives.

These performance factors are considered by our compensation committee in connection with our annual performance reviews described below and are a critical component in the determination of annual cash and equity incentive awards for our executives.

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. The outside, independent and non-employee members of the board of directors approved the compensation committee's recommendations for the 2019 compensation of our named executive officers.

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.

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, and 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 will consider the individual performance of the executives, as assessed by the Chief Executive Officer, and the compensation recommendations submitted to the compensation committee by the Chief Executive Officer. Our Chief Executive Officer and other members of management 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 2019 compensation package.

Consultant

The compensation committee engaged Haigh as an independent compensation consultant. Haigh was engaged by and reports directly to the compensation committee.

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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.

During 2019, 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, 2019. Other than providing limited advice to our management and our compensation committee regarding competitive salary data, Haigh did not provide any other services to us in 2019. 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 2019 and how this amount compared to Haigh's 2019 total gross revenues. As a result, the compensation committee concluded that Haigh's services to the compensation committee during 2019 did not raise any conflict of interest.

Peer Group, Survey Sources and Market Data

Peer Group

In November 2018, in consultation with Haigh, the compensation committee evaluated the list of companies that should be included in the peer group used as a reference point in determining 2019 compensation, which we refer to as the 2018 peer group. The selected 2018 peer group companies were chosen based upon the following selection criteria:

- companies focused on oncology drug development but without commercial products;
- companies with 20 to 100 employees;
- companies with market values between \$200 million to \$1 billion;
- companies with R&D expense between \$30 million and \$100 million annually; and
- companies located in Massachusetts, which is viewed as our talent market, with 13 of the 19 peer group companies located in New England.

The compensation committee determined that the foregoing selection criteria were relevant for selecting the 2018 peer group because at such time we had approximately 46 employees, a market value of approximately \$384.0 million and an R&D trailing expense of approximately \$40.0 million. The following 19 companies were approved by the compensation committee as the 2018 peer group for purposes of determining the January 2019 equity grants and in setting 2019 base salary and bonus target levels:

Achillion Pharmaceuticals, Inc.
Ardelyx Inc.
ArQule Inc.
Albireo Pharma Inc.
Biocryst Pharmaceuticals, Inc
Cara Therapeutics Inc.
Calithera Biosciences, Inc.

Concert Pharmaceuticals, Inc.
CytomX Therapeutics, Inc.
Dicerna Pharmaceuticals Inc.
Editas Medicine, Inc.
Epizyme, Inc.
Geron Corporation

Idera Pharmaceuticals, Inc.
Progenics Pharmaceuticals Inc.
Ra Pharmaceuticals, Inc.
Selecta Biosciences, Inc.
Syros Pharmaceuticals, Inc.
Verastem, Inc.

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In November 2019, in consultation with Haigh, the compensation committee evaluated the list of companies that should be included in the peer group used as a reference point in making 2020 executive compensation decisions, which we refer to as the 2019 peer group. The selected 2019 peer group companies were chosen based upon the following selection criteria:

- U.S. public life science companies with clinical pipeline but not fully commercial;
- companies with 20 to 100 employees;
- companies with market values between \$500 million to \$2 billion; and
- companies with R&D expense between \$30 million and \$100 million annually.

The compensation committee determined that the foregoing selection criteria were relevant for selecting the 2019 peer group because at such time we had approximately 65 employees, a market value of approximately \$771.9 million and an R&D trailing expense of approximately \$35.9 million. The following 19 companies were approved by the compensation committee as the 2019 peer group used for purposes of setting 2020 base salary and bonus target levels for our executives:

AnaptysBio, Inc.	CytomX Therapeutics, Inc.	G1 Therapeutics Inc.
Arqule Inc.	Deciphera Pharmaceuticals, Inc.	Geron Corp.
Arvinas, Inc.	Dicerna Pharmaceuticals, Inc.	Kura Oncology, Inc.
Calithera Biosciences, Inc.	Editas Medicine, Inc.	Magenta Therapeutics, Inc.
Cara Therapeutics, Inc.	Epizyme, Inc.	Syros Pharmaceuticals, Inc.
Chemocentryx Inc.	Fate Therapeutics Inc.	TG Therapeutics, Inc.
Concert Pharmaceuticals, Inc.		

Other Survey Sources

In making its 2019 executive compensation decisions, the compensation committee also reviewed drug development survey data as a supplement to peer data.

2019 Compensation Decisions

Overview

As a general approach, the compensation committee reviews each component and the total compensation for each named executive officer to ensure their compensation is in line with the peer group and/or survey market data. The compensation committee does not target a specific percentile and references market data as context.

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, among other factors, our performance, stock price appreciation, individual performance, experience, and breadth of each position's role.

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When determining Drs. Cooper and Mauney's 2019 base salaries, the compensation committee considered 2018 performance, that Dr. Cooper's base salary had not increased since he joined the Company in 2015 and that Dr. Mauney had been recently promoted to President. These factors played a role in the compensation committee's determination to increase Drs. Cooper's and Mauney's salaries by 14.6% and 10.0%, respectively. The compensation committee determined to increase the base salaries of Messrs. Hadfield and Lafond by 5.7% and 2.4%, respectively, to position their salaries near the middle of market data.

<u>Named Executive Officer</u>	<u>2018 Base Salary (\$)</u>	<u>2019 Base Salary (\$)</u>	<u>Percentage Increase from 2018</u>
Laurence James Neil Cooper	500,000	573,000	14.6
David M. Mauney	400,000	440,000	10.0
Satyavrat Shukla	—	390,000 ⁽¹⁾	—
Robert Hadfield	350,000 ⁽²⁾	370,000	5.7
Kevin G. Lafond	283,250	290,000	2.4

(1) Represents Mr. Shukla's annual base salary rate for 2019. Mr. Shukla's actual 2019 base salary was pro-rated based on his July 22, 2019 hire date.

(2) Represents Mr. Hadfield's annual base salary rate for 2018. Mr. Hadfield's actual 2018 base salary was pro-rated based on his April 9, 2018 hire date.

Annual Incentive Compensation.

An important component of our total compensation program is the annual cash incentive, which is based on the achievement of annual company performance objectives and individual executive performance. Our compensation committee recognizes the important role that variable cash compensation plays in attracting and retaining executives, as well as focusing executives (and all other employees) on the achievement of key annual financial, research, clinical, business development and individual goals.

The compensation committee generally places a significant amount of our named executive officer's target cash compensation at risk and tied to achievement of our performance goals. This also serves as an important incentive and retention purpose in the highly competitive Greater Boston/Cambridge, Massachusetts area and national and international biopharmaceutical and biotechnology employment marketplace within which we compete for top executive talent. The 2019 target bonus amounts for Dr. Cooper is specified in his employment agreement with the Company and is the same percentage of his salary as it was in 2018. The compensation committee increased Dr. Mauney's target bonus percentage from 40% to 45% as a result of his promotion to President and increased Mr. Hadfield's target bonus percentage from 30% to 40% as a result of Mr. Hadfield's increased responsibility within the Company and in order to align Mr. Hadfield's target bonus percentage with other executives within the Company. The 2019 target bonus amounts for Mr. Lafond remained unchanged from 2018 levels as a percentage of base salary as the compensation committee determined that such levels continued to provide adequate performance incentives and were competitive and reflective of his level of responsibility for attaining our corporate performance objectives.

2019 Annual Performance Objectives

In the first quarter of each year, the compensation committee, in consultation with management, establishes Company goals that are used to assess management's performance during the year. The Company goals are directed toward the advancement of our Controlled IL-12 and Cell Therapy platforms and other corporate or business development activities and financial objectives. Our board of directors had the discretion under the 2019 annual cash incentive program to adjust upward or downward any cash incentive award and/or the bonus pool as it deemed appropriate, including for qualitative factors such as degree of success, timing of achievement, and developments and achievements not contemplated at the time the performance goals were established.

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The table below describes the objectives established for 2019, along with the compensation committee's and board of directors' assessment of our achievement of these objectives:

<u>Program</u>	<u>Objectives</u>	<u>Board of Directors' Assessment</u>
<i>Controlled IL-12 Platform</i>	<ul style="list-style-type: none">• Generate key rGBM clinical data to strengthen the position of the asset, including as a monotherapy and in combination with immune checkpoint inhibitors• Progress our manufacturing capabilities to prepare for later stage clinical trials	<p>The board of directors determined almost all of the goals supporting our Controlled IL-12 objectives had been achieved, which included:</p> <ul style="list-style-type: none">• Achieving the enrollment goals within the pre-specified timelines for the clinical trials of our Controlled IL-12 platform as both a monotherapy and in combination with PD-1 antibodies OPDIVO® (nivolumab) and Libtayo® (cemiplimab-rwlc)• Advancing our manufacturing capabilities, as determined by the established objective goals, in order to support the timeline for the Controlled IL-12 Program
<i>Cell Therapy Platform</i>	<ul style="list-style-type: none">• Advance our CAR⁺ T program to establish feasibility of manufacturing approach and clinical treatment• Advance clinical TCR⁺ T programs to enable treatment of patients at the NCI and MD Anderson• Improve our infrastructure to enable us to become leader in cell therapy	<p>The board of directors determined that we had achieved several of the objectives established for our Cell Therapy program, which included:</p> <ul style="list-style-type: none">• Establishing the infrastructure to independently advance our TCR program and becoming a leader in the TCR field• In-licensing core TCR technology from the NCI• Supporting our joint venture, Eden BioCell, so that it could begin development of an autologous CAR⁺ T program <p>The board of directors concluded that our clinical trial enrollment goals for TCR and CAR⁺ T were not achieved but that the advancements in each of the programs were impressive in other areas:</p> <ul style="list-style-type: none">• MD Anderson had filed IND application, cleared by the FDA, for our allogeneic CAR⁺T study• The NCI's IND had been cleared for its Phase 2 clinical trial utilizing our <i>Sleeping Beauty</i> technology

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Program	Objectives	Board of Directors' Assessment
<i>Additional Objectives</i>	<ul style="list-style-type: none"> Maintain a specified cash position and execute on business development objectives 	The board of directors determined we had achieved our finance goal by closing the warrant exercise transactions completed during the third quarter. We also signed our research and development agreement with MD Anderson that will support our TCR program.

In light of the accomplishments described above and our overall progress throughout the year, the board of directors determined that 90% of the corporate objectives had been achieved and that a payout level of 90% of the targeted cash bonus was appropriate for Dr. Cooper.

Under our 2019 annual cash incentive program, 20% of the target bonus for Dr. Mauney and Messrs. Shukla and Hadfield were allocated to the individual objectives established for the executive. Mr. Lafond was no longer a member of the executive leadership team following Mr. Shukla's joining the Company and, therefore, 80% of Mr. Lafond's target bonus was allocated to his individual objectives. The following table includes the individual objectives established for each executive officer.

Name	Individual Objectives
David M. Mauney	Objectives relating to financial planning, maintaining balance sheet security, investor relations, buy and sell side outreach, business development activities and recruiting
Satyavrat Shukla	Objectives relating to strengthening our financial processes, including the annual budget, expanding outreach to Wall Street analysts, leading our long-term financial planning and serving as a member of our leadership team
Robert Hadfield	Objectives relating to supporting business development and licensing initiatives, overseeing our intellectual property, leading certain efforts relating to our public reporting obligations and participating as a member of our leadership team
Kevin G. Lafond	Objectives relating to the Company's annual filings and compliance requirements and policies

The board of directors determined that each executive achieved 100% of his individual goals. When factoring in the board's determination that we had achieved 90% of the corporate goals, the resulting payout awarded to Dr. Mauney and Messrs. Shukla and Hadfield was 92% of targeted cash bonus, and the resulting payout awarded to Mr. Lafond was 98% of targeted cash bonus. Mr. Shukla's bonus payout was adjusted as a result of his partial year of employment with us.

The target short-term incentive compensation amounts for 2019, expressed as a percentage of 2019 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 2019 performance:

Name	2019 Target Bonus		2019 Actual Bonus		Percentage of Target Bonus Paid Out
	Percentage of Base Salary	Amount (\$)	Percentage of Base Salary	Amount (\$)	
Laurence James Neil Cooper	200.0	1,146,000	180.0	1,031,400	90.0
David M. Mauney	45.0	198,000	41.4	182,160	92.0
Satyavrat Shukla	40.0	156,000	25.6	100,000	64.1
Robert Hadfield	40.0	148,000	36.8	136,160	92.0
Kevin G. Lafond	35.0	101,500	34.3	99,470	98.0

Long-Term Incentive Compensation

We award equity incentives in order to directly link the interests of our named executive officers with those of our stockholders and create incentives for them to maximize the long-term value of our stock. 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 other than our Chief Executive Officer, and ensuring that the Chief Executive Officer's award appropriately reflects the importance of his responsibilities for our success.

Historically, we have granted equity in December for all employees, including our named executive officers. In December 2018, we elected to adjust our practices to begin granting equity to named executive officers in January instead of December of the prior year. Accordingly, none of our executives received annual equity grants during 2018, but instead received such grants in January 2019. The board of directors believes that granting equity in January is a more customary approach and will provide the board with additional time to evaluate market practices, the performance of the named executive officers and the requirements of our business.

For the past several years, we have granted our executive officers restricted stock because it was less dilutive to our stockholders than stock options, as fewer shares of our common stock are granted to achieve an equivalent value relative to stock options. In January 2019, the board of directors elected to grant a mix of restricted stock awards and stock options, with the intended mix roughly 50% in options and 50% in restricted stock to provide both an immediate retention incentive and to reward stock price growth through options. The compensation committee determined this mix of options and restricted stock provided the appropriate balance to retain and incentivize our named executive officers and align the named executive officers' interests with those of our stockholders. The board of directors believes this practice is more in line with our peers and, while it will likely increase the dilution to our stockholders, provides greater alignment between our executives and stockholders because our executives will only realize value with respect to the stock options if the value of our shares increases after the date of grant and the executive remains with us over the multi-year vesting period. The grant date values for the stock options and restricted stock are not equivalent as a result of changes in our stock price and accounting assumptions required to report such values under SEC rules.

In January 2019, after referencing the 2018 peer group data, the compensation committee granted the following equity awards that it believed to be competitive with the peer group and continue to align our executives' interests with those of our stockholders in order to motivate their performance to increase our share value:

<u>Name</u>	<u>Restricted Stock</u>	<u>Stock Options</u>	<u>Total Equity Value⁽¹⁾</u>
Laurence James Neil Cooper	337,266	531,813	\$1,618,183
David M. Mauney	159,010	250,733	\$ 762,921
Robert Hadfield	117,572	185,391	\$ 564,103
Kevin G. Lafond	37,122	58,536	\$ 178,110

(1) Amounts reflect the grant date fair values, as calculated in accordance with ASC Topic 718.

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Upon Mr. Shukla joining the Company in July 2019, Mr. Lafond ceased to be a member of our leadership team and, consistent with our historical practice for non-executive officers, Mr. Lafond received his 2020 equity incentive award, reflected below, in December 2019 rather than in January 2020 when our executive officers received their 2020 equity incentive awards. As a result of Mr. Lafond's status change from executive officer to non-executive officer during 2019 and the difference in grant timing for our executive and non-executive equity awards, the Summary Compensation Table reflects equity awards for both 2019 and 2020 for Mr. Lafond.

<u>Name</u>	<u>Stock Options</u>	<u>Total Equity Value(1)</u>
Kevin G. Lafond	48,000	\$ 144,533

(1) Amounts reflect the grant date fair values, as calculated in accordance with ASC Topic 718.

Each of the restricted stock and stock options described above that were granted to our named executive officers vest in three equal annual installments and the stock options vest quarterly in equal installments over three years. 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.

Our practice is to grant new employees stock options, rather than restricted stock, that vest over four years. As part of our negotiations with Mr. Shukla, and as an inducement to have him join the Company in July 2019, we granted him a stock option to purchase 400,000 shares of our common stock.

Stock Ownership Guidelines

In April 2019, we adopted stock ownership guidelines to help ensure that our senior executive officers and the non-employee members of our board of directors each maintain an equity stake in the Company, and by doing so, appropriately link their interests with those of our other stockholders. These guidelines require our Chief Executive Officer to own equity interests in the Company with a value equal to 3 times his base salary, each other senior executive officer to own equity interests with a value equal to 1 times his or her respective base salary, and all non-employee members of our board to own equity interests with a value equal to 3 times their respective annual retainer, each as calculated under our policy. Compliance is assessed annually, and executive officers and directors have an initial compliance period (ranging from three to five years, depending on how long they have been in such capacity with the Company at the time the guidelines are effective) from the date on which they become subject to the guidelines.

As of December 31, 2019, each of our named executive officers were in compliance with the ownership guidelines due to the compliance period, with Dr. Cooper having beneficial ownership, as determined under the ownership guidelines, of our equity with a value equal to 12.0 times his 2019 annual base salary, based on our stock price as of December 31, 2019.

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, pledging transactions, hedging transactions or other inherently speculative transactions with respect to our stock. Any violation of the policies may result in disciplinary action, including dismissal for cause.

Severance and Change in Control Benefits

We have agreements with each of our named executive officers providing them with severance benefits, including double trigger cash and equity severance for termination in connection with a change-in-control, as further described in "Employment and Change in Control Agreements" below. The amounts and terms and conditions of these severance rights reflect the negotiations between each of our named executive officers 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

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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 our executives 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. 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 (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 \$19,000 in 2019, with an additional "catch up" contribution of up to \$6,000 permitted for employees age 50 and older, to the 401(k) plan. Employee contributions are held and invested by the 401(k) plan's trustee. In 2019, we matched employee contributions at a rate of 100% up to 4% of an employee's base salary contributed to the plan. 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 United States. 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. We provided Dr. Cooper certain transportation perquisites and both Drs. Cooper and Mauney housing perquisites under the terms of their employment agreements. We view the overall cost of these benefits to be reasonable in light of the benefit of continuing to retain the services of Drs. Cooper and Mauney and focus their 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

Under Section 162(m) of the Code ("Section 162(m)"), compensation paid to any publicly held corporation's "covered employees" that exceeds \$1 million per taxable year for any covered employee is generally non-deductible.

Prior to the enactment of the Tax Cuts and Jobs Act, Section 162(m) provided a performance-based compensation exception, pursuant to which the deduction limit under Section 162(m) did not apply to any compensation that qualified as "performance-based compensation" under Section 162(m). Pursuant to the Tax Cuts and Jobs Act, the performance-based compensation exception under Section 162(m) was repealed with respect to taxable years beginning after December 31, 2017, except that certain transition relief is provided for compensation paid pursuant to a written binding contract which was in effect on November 2, 2017 and which is not modified in any material respect on or after such date.

Compensation paid to each of our "covered employees" in excess of \$1 million per taxable year generally will not be deductible unless it qualifies for the performance-based compensation exception under Section 162(m) pursuant to the transition relief described above. Because of certain ambiguities and uncertainties as to the application and interpretation of Section 162(m), as well as other factors beyond the control of the compensation committee, no assurance can be given that any compensation paid by us will be eligible for such

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transition relief and be deductible by us in the future. Although the compensation committee will continue to consider tax implications as one factor in determining executive compensation, the compensation committee also looks at other factors in making its decisions and retains the flexibility to provide compensation for our named executive officers in a manner consistent with the goals of our executive compensation program and the best interests of us and our stockholders, which may include providing for compensation that is not deductible by us due to the deduction limit under Section 162(m). The compensation committee also retains the flexibility to modify compensation that was initially intended to be exempt from the deduction limit under Section 162(m) if it determines that such modifications are consistent with our business needs.

Accounting Considerations

We account for equity compensation paid to our employees under the Financial Accounting Standards Board Accounting Standards Codification Topic 718 (“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 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, 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 titled “Compensation Discussion and Analysis” as it appears above be included in this proxy statement.

COMPENSATION COMMITTEE

Scott Tarriff, Chair
Scott Braunstein, M.D.
Heidi Hagen

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

Executive Compensation Tables

Summary Compensation Table

The following table sets forth information regarding compensation awarded to or earned by our named executive officers.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)(1)	Option Awards (\$)(1)	All Other Compensation (\$)	Total (\$)
Laurence James Neil Cooper, M.D., Ph.D. Chief Executive Officer	2019	573,000	1,031,400	755,476	862,707	94,991(2)	3,317,574
	2018	500,000	1,000,000(3)	—	—	89,239	1,589,239
	2017	500,000	875,000	1,140,720	—	78,524	2,894,244
David M. Mauney, M.D. President	2019	440,000	182,160	356,182	406,739	63,850(4)	1,448,931
	2018	400,000	197,000	—	—	11,756	608,756
	2017	103,077	36,158	—	2,156,550	2,189	2,297,974
Satyavrat Shukla(5) Chief Financial Officer	2019	174,500	100,000	—	1,545,520	2,198(6)	1,822,218
Robert Hadfield Executive Vice President, General Counsel and Secretary	2019	370,000	136,160	263,361	300,741	11,560(7)	1,081,822
	2018	254,647	113,000	—	459,390	9,054	836,091
Kevin G. Lafond Sr. Vice President – Finance, Chief Accounting Officer and Treasurer	2019	290,000	99,470	83,153	239,490	13,101(8)	843,123
	2018	283,250	104,138	—	—	11,610	398,998
	2017	275,000	84,219	219,420	—	2,585	581,224

- (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 14 to the financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on March 2, 2020. 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) Of such amount, (i) \$1,548 represents the dollar value of group term life insurance premiums we paid for the benefit of Dr. Cooper during 2019, (ii) \$82,243 represents taxable perquisites, including \$75,580 for housing expenses and \$6,663 for commuting expenses, and (iii) \$11,200 represents the amount we contributed to Dr. Cooper’s 401(k) plan account pursuant to our matching program.
- (3) Dr. Cooper offered to receive his 2018 annual incentive bonus in shares of our common stock with a trading value equal to the \$1,000,000 cash bonus, rounded down to the nearest whole share. The board of directors accepted Dr. Cooper’s offer and Dr. Cooper was issued 446,428 shares of common stock in January 2019. The number of shares underlying the award were calculated based on Dr. Cooper’s cash bonus award and divided by the most recent closing price of our common stock prior to the day the shares were issued.
- (4) Of such amount, (i) \$828 represents the dollar value of group term life insurance premiums we paid for the benefit of Dr. Mauney during 2019, (ii) \$51,823 represents taxable perquisites for housing expenses, and (ii) \$11,200 represents the amount we contributed to Dr. Mauney’s 401(k) plan account pursuant to our matching program.
- (5) Mr. Shukla joined us as Chief Financial Officer in July 2019.

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- (6) Of such amount, (i) \$248 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Shukla during 2019 and (ii) \$1,950 represents the amount we contributed to Mr. Shukla's 401(k) plan account pursuant to our matching program.
- (7) Of such amount, (i) \$360 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Hadfield during 2019 and (ii) \$11,200 represents the amount we contributed to Mr. Hadfield's 401(k) plan account pursuant to our matching program.
- (8) Of such amount, (i) \$1,901 represents the dollar value of group term life insurance premiums we paid for the benefit of Mr. Lafond during 2019 and (ii) \$11,200 represents the amount we contributed to Mr. Lafond's 401(k) plan account pursuant to our matching program.

Grants of Plan-Based Awards for Fiscal 2019

The following table sets forth information regarding grants of compensation in the form of plan-based awards made during 2019 to our named executive officers. The equity awards granted in 2019 identified in the table below are also reported in the table titled "Outstanding Equity Awards at 2019 Fiscal Year-End".

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Award(s) ⁽¹⁾			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 (\$) ⁽²⁾
		Threshold (\$)	Target (\$)	Maximum (\$)				
Laurence James Neil Cooper, M.D., Ph.D		—	1,146,000	—			—	
	1/6/19				337,266		755,476	
David M. Mauney, M.D.	1/6/19					531,813	862,707	
	1/6/19	—	198,000	—	159,010		356,182	
Satyavrat Shukla	1/6/19					250,733	406,739	
	7/22/19	—	156,000	—	—	400,000	1,545,520	
Robert Hadfield	1/6/19	—	148,000	—			—	
	1/6/19				117,572		263,361	
Kevin G. Lafond	1/6/19	—	101,500	—		185,391	300,741	
	1/6/19				37,122		83,153	
	12/31/19					58,536	94,957	
						48,000	144,533	

- (1) Reflects performance-based cash bonuses that our named executive officers were eligible to earn in 2019 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 2019 performance, see the Bonus column of the Summary Compensation Table 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 14 to the financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 filed with the SEC on March 2, 2020. 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.

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Outstanding Equity Awards at 2019 Fiscal Year-End

The following table sets forth information regarding option awards and restricted stock awards held as of December 31, 2019 by our named executive officers.

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options		Option Exercise Price (\$)(1)	Option Expiration Date	Shares or Units of Stock That Have Not Vested	
	Exercisable (#)	Unexercisable (#)			Number (#)	Market Value (\$)(2)
Laurence James Neil Cooper, M.D., Ph.D.	—	—	—	—	116,000(3)	547,520
	—	—	—	—	224,844(4)	1,061,263
	132,629	354,542(5)	2.24	1/6/29		
David M. Mauney, M.D.	333,333	166,667(6)	6.19	9/28/27	—	—
	83,578	167,155(7)	2.24	1/6/29		
					106,007(8)	500,353
Satyavrat Shukla		400,000(9)	5.60	7/22/29		
Robert Hadfield	50,000	100,000(10)	4.32	4/25/28		
	61,797	123,594(11)	2.24	1/6/29		
					78,381(12)	
Kevin G. Lafond	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	—	—
	75,000	—	5.07	12/31/24	—	—
	19,512	39,024(13)	2.24	1/6/29		
	0	48,000(14)	4.72	12/31/29		
	—	—	—	—	17,667(15)	83,388
	—	—	—	—	24,748(16)	116,811

- (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 31, 2019, which was \$4.72 per share.
- (3) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 116,000 shares on December 29, 2020.
- (4) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 112,422 shares on each of December 31, 2020 and December 31, 2021.
- (5) Vests with respect to 177,271 shares on each of December 31, 2020 and December 31, 2021.
- (6) Vests with respect to 166,667 shares on September 28, 2020.
- (7) Vests with respect to 83,577 shares on December 31, 2020 and with respect to 83,578 shares on December 31, 2021.
- (8) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 53,004 shares on December 31, 2020 and with respect to 53,003 shares on December 31, 2021.
- (9) Vests with respect to 133,333 shares on July 22, 2020, with respect to 133,334 shares on July 22, 2021 and with respect to 133,333 shares on July 22, 2022.
- (10) Vests with respect to 50,000 shares on each of April 25, 2020 and April 25, 2021.
- (11) Vests with respect to 61,797 shares on each of December 31, 2020 and December 31, 2021.
- (12) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 39,190 shares on December 31, 2020 and with respect to 39,191 shares on December 31, 2021.
- (13) Vests with respect to 19,512 shares on each of December 31, 2020 and December 31, 2021.

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- (14) Vests with respect to 16,000 shares on each of December 31, 2020, December 31, 2021 and December 31, 2022.
- (15) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 17,667 shares on December 29, 2020.
- (16) Such shares are subject to transfer and forfeiture restrictions that lapse with respect to 12,374 shares on each of December 31, 2020, and on December 31, 2021.

Option Exercises and Stock Awards Vested during Fiscal 2019

The following table provides certain information regarding option awards that were exercised and restricted stock that vested during the fiscal year ended December 31, 2019 with respect to our named executive officers.

<u>Name</u>	<u>Option Awards</u>		<u>Stock Awards</u>	
	<u>Number of Shares Acquired on Exercise (#)</u>	<u>Value Realized on Exercise (\$)(1)</u>	<u>Number of Shares Acquired on Vesting (#)</u>	<u>Value Realized on Vesting (\$)(2)</u>
Laurence James Neil Cooper, M.D., Ph.D.	44,642	129,908	299,172	1,466,924
David M. Mauney, M.D.			53,003	250,174
Satyavrat Shukla	—	—	—	—
Robert Hadfield			39,191	184,982
Kevin G. Lafond	11,667	29,168	43,140	212,134

- (1) Value realized is calculated by multiplying (i) the number of shares of common stock for which the stock options were exercised by (ii) the difference between the exercise price and the closing price of our common stock as reported on the Nasdaq Capital Market on the date of exercise. These amounts may not correspond to the actual value that may be recognized by the officers.
- (2) Value realized is calculated by multiplying the number of shares vested on the applicable date during 2019 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 our named executive officers.

Employment and Change in Control Agreements

We have the following employment agreements in place with our named executive officers.

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

Dr. 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. In 2019, Dr. Cooper received a base salary of \$573,000. Under his employment agreement, his base salary is subject to review by the board of directors or the compensation committee at least annually.

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.

Equity Incentive Grants. Dr. Cooper is eligible under his employment agreement to receive equity awards as determined by the board in its discretion from time to time. 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 for further discussion on Dr. Cooper's severance benefits.

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Expense Reimbursement. Under his employment 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.

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, and the unvested stock options and unvested awards of restricted stock awarded to Dr. Cooper in 2016 and 2017 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 performance bonus for the calendar year in which such termination occurs.

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.

Employment Agreement with David M. Mauney, M.D.

Dr. Mauney has served as our President since December 2018, and previously served as our Executive Vice President and Chief Business Officer from September 2017 to December 2018 and as our Interim Chief Operating Officer from November 2017 to December 2018. In April 2019, we entered into an employment agreement with Dr. Mauney that replaced his offer letter. Dr. Mauney has an at-will employment relationship with us.

Base Salary. In 2019, Dr. Mauney received a base salary of \$440,000. Under his employment agreement, Dr. Mauney’s annual base salary is subject to review by the board of directors or the compensation committee at least annually.

Annual Performance Bonus. Under his employment agreement, Dr. Mauney 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 45% of his base salary, with the actual amount to be received determined by the board or the compensation committee.

Equity Incentive Grants. Dr. Mauney is eligible to receive equity awards as determined by the board in its sole discretion from time to time. 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. Mauney at the time that such termination occurs will be accelerated and deemed to have vested as of his employment termination date.

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Severance Provisions. If (i) we terminate Dr. Mauney for a reason other than death, disability or “Cause” (as that term is defined in his employment agreement), or (ii) Dr. Mauney resigns for “Good Reason” (as that term is defined in his employment agreement), Dr. Mauney will be entitled to receive a severance payment equal to 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, plus payment of our portion of the contributions for medical and dental insurance coverage for twelve months, subject to Dr. Mauney’s execution and delivery of a general release in favor of the Company. 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. Mauney 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. Mauney will be entitled to full target amount of his annual performance bonus for the calendar year in which such termination occurs.

Non-competition and Non-solicitation. Dr. Mauney 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.

Employment Agreement with Satyavrat Shukla

Mr. Shukla has served as our Chief Financial Officer since July 2019 pursuant to an employment agreement with Mr. Shukla entered into in June 2019. Mr. Shukla has an at-will employment relationship with us.

Base Salary. Mr. Shukla’s annual base salary in 2019 was \$390,000, pro rated based on the number of days worked. Under his employment agreement, Mr. Shukla’s annual base salary is subject to review by the board of directors or the compensation committee at least annually.

Annual Performance Bonus. Under his employment agreement, Mr. Shukla 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 40% of his base salary, with the actual amount to be received determined by the board or the compensation committee.

Equity Incentive Grants. In connection with his appointment as our Chief Financial Officer and pursuant to his employment agreement, effective as of July 22, 2019, the board granted to Mr. Shukla an option to purchase 400,000 shares of our common stock, which option has an exercise price of \$5.60 per share. Mr. Shukla is also eligible to receive equity awards as determined by the board in its sole discretion from time to time. 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 of Control” (as that term is defined in his employment agreement), or within 18 months after the occurrence of a “Change of Control,” all unvested stock options and unvested awards of restricted stock held by Mr. Shukla at the time that such termination occurs will be accelerated and deemed to have vested as of his employment termination date.

Severance Provisions. If (i) we terminate Mr. Shukla for a reason other than death, disability or “Cause” (as that term is defined in his employment agreement), or (ii) Mr. Shukla resigns for “Good Reason” (as that term is defined in his employment agreement), Mr. Shukla will be entitled to receive a severance payment equal to nine months of his then-current base salary, plus payment of our portion of the contributions for medical and dental insurance coverage for nine months, subject to Mr. Shukla’s execution and delivery of a general release in favor of the Company. 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 of Control” (as that term is defined in his employment agreement), or within 18 months after the

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occurrence of a “Change of Control,” then, in addition to the foregoing severance provisions, all unvested stock options and unvested awards of restricted stock held by Mr. Shukla at the time that such termination occurs will be accelerated and deemed to have vested as of his employment termination date, and Mr. Shukla will be entitled to full target amount of his annual performance bonus for the calendar year in which such termination occurs.

Non-competition and Non-solicitation. Mr. Shukla 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.

Employment Agreement with Robert Hadfield

Mr. Hadfield has served as our Executive Vice President, General Counsel, Secretary and Chief Compliance Officer since December 2018, and previously served as our General Counsel and Secretary from April 2018 to December 2018. In April 2019, we entered into an employment agreement with Mr. Hadfield that replaced his original offer letter. Mr. Hadfield has an at-will employment relationship with us.

Base Salary. In 2019, Mr. Hadfield received a base salary of \$370,000. Under his employment agreement, Mr. Hadfield’s annual base salary is subject to review by the board of directors or the compensation committee at least annually.

Annual Performance Bonus. Under his employment agreement, Mr. Hadfield 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 40% of his base salary, with the actual amount to be received determined by the board or the compensation committee.

Equity Incentive Grants. Mr. Hadfield is eligible to receive equity awards as determined by the board in its sole discretion from time to time. 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 Mr. Hadfield at the time that such termination occurs will be accelerated and deemed to have vested as of his employment termination date.

Severance Provisions. If (i) we terminate Mr. Hadfield for a reason other than death, disability or “Cause” (as that term is defined in his employment agreement), or (ii) Mr. Hadfield resigns for “Good Reason” (as that term is defined in his employment agreement), Mr. Hadfield will be entitled to receive a severance payment equal to nine months of his then-current base salary, plus payment of our portion of the contributions for medical and dental insurance coverage for nine months, subject to Mr. Hadfield’s execution and delivery of a general release in favor of the Company. 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 Mr. Hadfield at the time that such termination occurs will be accelerated and deemed to have vested as of his employment termination date, and Mr. Hadfield will be entitled to full target amount of his annual performance bonus for the calendar year in which such termination occurs.

Non-competition and Non-solicitation. Mr. Hadfield 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.

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Employment Relationship with Kevin G. Lafond

Base Salary. In 2019, Mr. Lafond received an annual base salary of \$290,000, which is subject to review by the board or the compensation committee at least annually.

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.

Equity Incentive Grants. Mr. Lafond is eligible to receive equity awards as determined by the board in its sole discretion from time to time. 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 "Severance Provisions" and "Potential Payments Upon Termination or Change in Control" below for further information regarding Mr. Lafond's severance benefits.

Severance Provisions. If Mr. Lafond is terminated by us 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 then-current annualized base salary, subject to Mr. Lafond's execution and delivery of a general release in favor of us.

Potential Payments Upon Termination or Change in Control

The following table sets forth estimated compensation that would have been payable to each of our currently serving 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 31, 2019.

Name and Principal Position	Cash Payment (\$) (1)	Accelerated Vesting of Stock Options (\$)(2)	Accelerated Vesting of Restricted Stock Awards (\$)(3)	Welfare Benefits (\$) (4)	Total (\$)
Laurence James Neil Cooper, M.D., Ph.D.					
Termination without cause or with good reason prior to change in control	1,719,000	989,976	1,061,264	27,381	4,345,141
Change in control only	—	—	—	—	—
Change in control with termination without cause or good reason	1,719,000	989,976	1,608,784	27,381	3,797,621
David M. Mauney, M.D.					
Termination without cause or with good reason prior to change in control	638,000	—	—	27,381	665,381
Change in control only	—	—	—	—	—
Change in control with termination without cause or good reason	638,000	414,545	500,353	27,381	1,580,279
Satyavrat Shukla					
Termination without cause or with good reason prior to change in control	409,500	—	—	20,536	430,036
Change in control only	—	—	—	—	—
Change in control with termination without cause or good reason	409,500	—	—	20,536	430,036

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<u>Name and Principal Position</u>	<u>Cash Payment (\$)</u> <u>(1)</u>	<u>Accelerated</u> <u>Vesting of Stock</u> <u>Options (\$)(2)</u>	<u>Accelerated</u> <u>Vesting of</u> <u>Restricted Stock</u> <u>Awards (\$)(3)</u>	<u>Welfare</u> <u>Benefits (\$)(4)</u>	<u>Total (\$)</u>
Robert Hadfield					
Termination without cause or with good reason prior to change in control	388,500	—	—	20,536	409,036
Change in control only	—	—	—	—	—
Change in control with termination without cause or good reason	388,500	346,513	369,958	20,536	1,132,352
Kevin G. Lafond					
Termination without cause or with good reason prior to change in control	145,000	—	—	9,621	154,621
Change in control only	—	—	—	—	—
Change in control with termination without cause or good reason	145,000	95,893	200,199	9,621	450,713

- (1) 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 \$4.72, which was the closing price of our common stock on the Nasdaq Capital Market on December 31, 2019.
- (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 31, 2019.
- (4) Amounts shown represent the estimated cost of providing employment-related benefits during the agreement period.

Pay Ratio Disclosure

Under SEC rules, we are required to calculate and disclose the annual total compensation of our median employee, as well as the ratio of the annual total compensation of our median employee as compared to the annual total compensation of Dr. Cooper, our Chief Executive Officer, for our last fiscal year. To identify our median employee, as permitted under SEC rules, we used the following methodology:

- To determine our total population of employees, we included all our employees as of December 31, 2019 regardless of their FTE schedule or anticipated employment duration and all individuals classified by us as independent contractors for tax reporting and employee benefits eligibility purposes but whose compensation we arguably control.
- To identify our median employee from our employee population, excluding our Chief Executive Officer, we calculated the total direct compensation paid as of December 31, 2019. Total direct compensation included 2019 base salary, actual annual bonus paid for 2019 performance (paid in December) and the fair value of stock options and/or restricted stock awards granted during 2019 (using the same methodology we use for estimating the value of the equity awards granted to our named executive officers and reported in our Summary Compensation Table). For part-time employees and/or independent contractors, we used actual compensation paid as of December 31, 2019.
- Using this approach to identify the median employee, we then calculated the annual total compensation of this median employee for 2019 using the same methodology we used for calculation of annual total compensation of our named executive officers in accordance with the requirements of the Summary Compensation Table.

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For the fiscal year ended December 31, 2019, the annual total compensation of our median employee was \$217,803 and the annual total compensation of our Chief Executive Officer, as reported in the Summary Compensation Table included in this filing, was \$3,317,574. Based on this information, the ratio of the annual total compensation of our Chief Executive Officer to our median employee was 15.2 to 1. We believe this ratio is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K under the Exchange Act.

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

Our board of directors has undertaken a review of the independence of our directors and considered whether any director has a relationship that, in the opinion of the board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a member of our board. Based upon information requested from and provided by each director concerning such director's background, employment and affiliations, including family relationships, the board has determined that all of our directors, other than Dr. Cooper, are "independent directors," as such term is defined in Nasdaq Rule 5605(a)(2). In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Board Leadership Structure

The board of directors has appointed an independent director, Scott Tarriff, to serve as its non-executive board chair. The board has elected to separate the chair 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, reinforces the independence of the board in its oversight of our business and affairs. In addition, we believe that having an independent chair creates an environment that is more conducive to objective evaluation and oversight of management's performance, increasing management accountability and improving the ability of the board to monitor whether management's actions are in the best interests of the Company and our stockholders. As a result, we believe that having an independent chair can enhance the effectiveness of the board as a whole.

Director Attendance at Board and Stockholder Meetings

The board of directors met nine times during 2019, either in person or by teleconference. Each director attended at least 75% of the aggregate number of meetings of the board and of the committees on which he or she served, held during 2019 or the portion thereof that he or she was a director or committee member.

Although we have no formal policy regarding directors' attendance at our annual meetings, we encourage such attendance by members of the board. All of the then-current directors attended our 2019 annual meeting of stockholders 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.

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The current members of the committees are as follows:

	<u>Audit</u>	<u>Compensation</u>	<u>Nominating</u>
Christopher Bowden, M.D.			■
Scott Braunstein, M.D.		■	
Laurence Cooper, M.D., Ph.D.			
Elan Ezickson	■		■
Heidi Hagen		■	■
Douglas W. Pagán	■		
Scott Tarriff*	■	■	

* = Board Chair ■ = Chair ■ = Member

Audit Committee

The current members of the audit committee are Mr. Douglas W. Pagán, who serves as the committee’s Chair, Mr. Elan Ezickson 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. Douglas W. Pagán, 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.

The audit committee held four meetings during 2019.

Compensation Committee

The current members of the compensation committee are Mr. Scott Tarriff, who serves as the committee’s Chair, Dr. Scott Braunstein and Ms. Heidi Hagen. As set forth in the compensation committee charter, the compensation committee reviews our compensation policies and practices and makes recommendations to the board of directors in connection with all compensation matters affecting our executive officers.

Each member of the compensation 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 compensation committee held six meetings during 2019.

Corporate Governance and Nominating Committee

The current members of the corporate governance and nominating committee are Ms. Heidi Hagen, who serves as the committee’s Chair, Dr. Christopher Bowden and Mr. Elan Ezickson. 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,

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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 three meetings during 2019.

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.

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 drug 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.

In April 2019, our board of directors updated our corporate governance policies to reflect the importance our board places on diversity. More specifically, we have updated our policies to emphasize our commitment to seeking to attain diversity and balance among directors of race, gender, geography, thought, viewpoints, backgrounds, skills, experience, and expertise. As a result, under our policies any search firm retained to assist the corporate governance and nominating committee in seeking candidates for the board of directors will be instructed to seek to include diverse candidates in terms of race, gender, geography, thought, viewpoints, backgrounds, skills, experience, and expertise from, among other areas, the traditional corporate environment, government, academia, private enterprise, non-profit organizations, and professions such as accounting, finance, marketing, human resources, and legal services.

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 one member of the corporate governance and nominating committee, along with other members of the board, and management, including 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.

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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 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 1 were approved for such nomination by the corporate governance and nominating committee.

Risk Management and Oversight

One of the board's key functions is informed oversight of the Company's risk management process. The board does not have a standing risk management committee, but rather administers this oversight function directly through the board as a whole, as well as through various board standing committees that address risks inherent in their respective areas of oversight. In particular, our board is responsible for monitoring and assessing strategic risk exposure, including a determination of the nature and level of risk appropriate for the Company. Our audit committee has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. Our corporate governance and nominating committee monitors the effectiveness of our corporate governance guidelines. Our compensation committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking.

In carrying out their risk oversight functions, the board of directors and its committees routinely request and review management updates, reports from the independent auditors and legal and regulatory advice from outside experts, as appropriate, to assist in discerning and managing important risks that may be faced by the Company. The board of directors is committed to continuing to ensure and evolve its risk oversight practices as appropriate given the stage of the Company's evolution as an immuno-oncology company and the fast-paced changes in the biotechnology industry. Regarding the COVID-19 pandemic, our management is meeting frequently to address concerns of our employees and business, as well as updating and communicating with the full board regularly. The full board has oversight and has been engaged concerning the monitoring and identification of risks to the Company, and actions we are taking to mitigate risks related to this pandemic.

Stockholder Communications 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 offices. 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 offices. 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 Mr. Scott Tarriff, Dr. Scott Braunstein and Ms. Heidi Hagen. 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 2019 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 Legal Affairs department 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.

Corporate Governance Guidelines

The board of directors has adopted Corporate Governance Guidelines to assure that the board of directors will have the necessary authority and practices in place to review and evaluate our business operations as needed and to make decisions that are independent of our management. The guidelines are also intended to align the interests of directors and management with those of our stockholders. The Corporate Governance Guidelines set forth the practices the board of directors intends to follow with respect to, among other things, board composition and selection including diversity, board meetings and involvement of senior management, Chief Executive Officer performance evaluation and succession planning, and board committees and compensation.

Report of the Audit Committee

The Audit Committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2019 with management of the Company. The Audit Committee has discussed with the independent

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registered public accounting firm the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board (“PCAOB”) and the SEC. The Audit Committee has also received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent accountants’ communications with the audit committee concerning independence, and has discussed with the independent registered public accounting firm the accounting firm’s independence. Based on the foregoing, the Audit Committee has recommended to the Board of Directors that the audited financial statements be included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

AUDIT COMMITTEE

Douglas W. Pagán, Chair
Elan Ezickson
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**Non-Employee Director Compensation Policy**

Under our director compensation policy, each non-employee director was entitled to the following in 2019:

- an annual retainer fee of \$50,000 for service on the board; and
- additional annual retainer fees for board committee service as follows:

	<u>Chair</u>	<u>Member</u>
Audit Committee	\$ 20,000	\$ 12,000
Compensation Committee	15,000	9,000
Corporate Governance and Nominating Committee	10,000	6,000

The non-executive board chair also receives further annualized cash compensation of \$25,000. 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.

In addition, under our director compensation policy, each director receives an annual equity grant equal to \$150,000. Each director may elect to receive their equity grant in the form of restricted shares of our common stock and/or options to purchase shares of our common stock, with the number of restricted shares determined based on our then-current stock price and the number of options determined using the Black-Scholes methodology.

Under our director compensation policy, in connection with a director's initial election to the board, he or she shall receive options to purchase shares of our common stock with a value at the time of grant equal to \$250,000, with the number of options determined using the Black-Scholes methodology. The award shall have an exercise price equal to the fair market value of the common stock on the grant date and will vest on the second anniversary of the director joining our board.

As set forth in its written charter, the compensation committee annually reviews director compensation practices in consultation with our compensation consultant 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.

Director Compensation Table

The following table sets forth information regarding the compensation earned for service on our Board by our non-employee directors during the year ended December 31, 2019. Dr. Cooper serves as our Chief Executive Officer in addition to being a director but does not receive any additional compensation for his service as a director and accordingly, he is not included in the table. We reimburse members of our board of directors for reasonable travel and out-of-pocket expenses incurred in connection with attending board of directors and committee meetings.

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)</u>	<u>Option Awards (1) (\$)</u>	<u>Stock Awards (1) (\$)</u>	<u>Total (\$)</u>
Christopher Bowden, M.D.(2)	11,413	401,718	—	413,131
Scott Braunstein, M.D.	67,054	—	150,002	217,056
James A. Cannon(3)	32,184	—	—	32,184
Elan Ezickson	62,560	—	150,002	212,562
Heidi Hagen(4)	32,395	312,300	150,002	494,697
Douglas Pagán	70,000	74,999	75,001	220,000
Scott Tarriff	100,533	149,997	—	250,530

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- (1) The amounts shown represent compensation expense recognized for financial statement purposes under ASC Topic 718. For Dr. Bowden, such amount consists of (i) an option award granted on October 8, 2019 with a grant date fair value of \$251,721 and (ii) an option award granted on December 31, 2019 with a grant date fair value of \$149,997. For Dr. Braunstein, such amount consists of a stock award granted on December 31, 2019 with a grant date fair value of \$150,002. For Mr. Ezickson, such amount consists of a stock award granted on December 31, 2019 with a grant date fair value of \$150,002. For Ms. Hagen, such amount consists of (i) an option award granted on June 13, 2019 with a grant date fair value of \$312,300 and (ii) a stock award granted on December 31, 2019 with a grant date fair value of \$150,002. For Mr. Pagán, such amount consists of (i) an option award granted on December 31, 2019 with a grant date fair value of \$74,999 and (ii) a stock award granted on December 31, 2019 with a grant date fair value of \$75,001. For Mr. Tarriff, such amount consists of (i) an option award granted on December 31, 2019 with a grant date fair value of \$149,997. 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 14 to the financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 filed with the SEC on March 2, 2020. 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, 2019:
- Dr. Bowden held options to purchase 144,593 shares at a weighted average exercise price of \$4.42 per share, of which no shares had vested.
 - Dr. Braunstein held options to purchase 176,700 shares at a weighted average exercise price of \$2.19 per share, of which 151,700 shares had vested. In addition, Dr. Braunstein held 31,780 shares of restricted stock, of which no shares have had transfer and forfeiture restrictions lapse.
 - Mr. Ezickson held options to purchase 50,000 shares at a weighted average exercise price of \$3.00 per share, of which 25,000 shares had vested. In addition, Mr. Ezickson held 71,887 shares of restricted stock, of which 40,107 shares have had transfer and forfeiture restrictions lapse.
 - Ms. Hagen held options to purchase 93,992 shares at a weighted average exercise price of \$5.22 per share, of which no shares had vested. In addition, Ms. Hagen held 31,780 shares of restricted stock, of which no shares have had transfer and forfeiture restrictions lapse.
 - Mr. Pagán held options to purchase 138,631 shares at a weighted average exercise price of \$2.80 per share, of which 88,350 shares had vested. In addition, Mr. Pagán held 35,943 shares of restricted stock, of which 20,053 shares have had transfer and forfeiture restrictions lapse.
 - Mr. Tarriff held options to purchase 267,262 shares at a weighted average exercise price of \$3.91 per share, of which 216,700 shares had vested. In addition, Mr. Tarriff held 4,186 shares of restricted stock, of which 4,186 shares have had transfer and forfeiture restrictions lapse.
- (2) Dr. Bowden was appointed to our board effective October 8, 2019.
- (3) Mr. Cannon's term on our board expired on June 13, 2019.
- (4) Ms. Hagen was appointed to our board effective June 13, 2019.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table provides certain information with respect to all of our equity compensation plans in effect as of December 31, 2019.

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options (a)</u>	<u>Weighted-Average Exercise Price of Outstanding Options (b)</u>	<u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)</u>
Equity compensation plans approved by stockholders:			
2003 Stock Option Plan	185,000	\$ 4.80	0
2012 Plan	5,657,879	\$ 3.90	2,503,508
Total:	5,842,879	\$ 3.93	2,503,508
Equity compensation plans not approved by stockholders:			
Inducement awards	1,030,000 ⁽¹⁾	\$ 5.80	0
Total:	1,030,000	\$ 5.80	0

- (1) Represents shares of our common stock underlying stock option awards which were issued outside of our equity incentive plans to certain employees as an inducement material the employee's acceptance of employment with us in accordance with Nasdaq Listing Rule 5635(c)(4).

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. Our 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.

Our 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.

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

We have a related person transaction policy that sets forth our procedures for the identification, review, consideration and approval or ratification of related person transactions. For purposes of our policy only, a related person transaction is a transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we and any related person are, were or will be participants in which the amount involved exceeds \$120,000. Transactions involving compensation for services provided to us as an employee or director are not covered by this policy. A related person is any executive officer, director or beneficial owner of more than 5% of any class of our voting securities, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, if a transaction has been identified as a related person transaction, including any transaction that was not a related person transaction when originally consummated or any transaction that was not initially identified as a related person transaction prior to consummation, our management must present information regarding the related person transaction to our audit committee, or, if audit committee approval would be inappropriate, to another independent body of our board of directors, for review, consideration and approval or ratification. The presentation must include a description of, among other things, the material facts, the interests, direct and indirect, of the related persons, the benefits to us of the transaction and whether the transaction is on terms that are comparable to the terms available to or from, as the case may be, an unrelated third party or to or from employees generally. Under the policy, we will collect information that we deem reasonably necessary from each director, executive officer and, to the extent feasible, significant stockholder to enable us to identify any existing or potential related person transactions and to effectuate the terms of the policy.

In considering related person transactions, our audit committee, or other independent body of our board of directors, will take into account the relevant available facts and circumstances including, but not limited to: the risks, costs and benefits to us; the impact on a director’s independence in the event that the related person is a director, immediate family member of a director or an entity with which a director is affiliated; the availability of other sources for comparable services or products; and the terms available to or from, as the case may be, unrelated third parties or to or from employees generally.

The policy requires that, in determining whether to approve, ratify or reject a related person transaction, our audit committee, or other independent body of our board of directors, must consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, our best interests and those of our stockholders, as our audit committee, or other independent body of our board of directors, determines in the good faith exercise of its discretion.

Certain Related-Party Transactions

Except as described below, there have been no transactions since January 1, 2019 in which we have been a participant in which the amount involved exceeded or will exceed \$120,000, and in which any of our directors,

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executive officers or holders of more than 5% of our common stock, or any members of their immediate family, had or will have a direct or indirect material interest, other than compensation arrangements which are described elsewhere in this filing under “Executive Compensation” and “Director Compensation.”

July and September 2019 Offerings

On July 26, 2019 and September 12, 2019, we entered into agreements with existing investors, including MSD Credit Opportunity Master Fund, L.P., White Rock Capital Partners L.P. and Miller Opportunity Trust, each of which was a holder of more than 5% of our common stock, for the exercise of previously issued warrants to purchase common stock in a private placement. Pursuant to the terms of the agreements, the investors exercised their 2018 warrants for an aggregate of 17,803,031 shares of common stock, at an exercise price of \$3.01 per share. The 2018 warrants exercised were originally issued by us in a private placement that closed in November 2018. Proceeds from the warrant exercise, after deducting placement agent fees and other related expenses of \$1.1 million were approximately \$52.5 million. We issued the participating investors new warrants to purchase up to 17,803,031 additional shares of common stock as an inducement for the warrant holders to exercise their 2018 warrants early. The 2019 warrants became exercisable six months following the date of issuance, will expire on the fifth anniversary of the initial exercise date, and have an exercise price of \$7.00 per share.

Indemnification Agreements

We have entered into an indemnification agreement with each of our directors and executive officers. These indemnification agreements and our charter and our bylaws indemnify each of our directors and officers to the fullest extent permitted by the Delaware General Corporation Law.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of common stock as of April 24, 2020 for:

- each person, or group of affiliated persons, who is known by us to be the beneficial owner of greater than five percent of our outstanding common stock;
- each of our directors and director nominees;
- each of our named executive officers named in the Summary Compensation Table above; and
- all of our 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 24, 2020 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 214,286,337 shares outstanding as of April 24, 2020. Except as otherwise noted below, the address for persons listed in the table is c/o Ziopharm Oncology, Inc., One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor, Boston, Massachusetts 02129.

<u>Name of Beneficial Owner</u>	<u>Number of Shares Beneficially Owned</u>	<u>Percentage of Common Stock Beneficially Owned (%)</u>
5% Stockholders:		
MSD Credit Opportunity Master Fund, L.P.(1)	22,101,509	9.99
Miller Value Partners, LLC(2)	16,522,144	7.6
White Rock Capital Partners(3)	13,085,758	6.0
The Vanguard Group, Inc. (4)	12,595,011	5.9
BlackRock, Inc.(5)	12,491,719	5.8
Directors, Director Nominees and Named Executive Officers:		
Chris Bowden, M.D.	—	—
Scott Braunstein(6)	183,480	*
Elan Z. Ezickson(7)	96,887	*
Heidi Hagen(8)	31,780	*
Douglas W. Pagán(9)	124,293	*
Scott Tarriff(10)	220,886	*
Laurence James Neil Cooper, M.D., Ph.D.(11)	2,103,937	*
David M. Mauney, M.D.(12)	723,908	*
Satyavrat Shukla(13)	90,825	*
Robert Hadfield(14)	344,632	*
Kevin G. Lafond(15)	320,375	*
All of our current directors and executive officers as a group (13 persons)(16)	5,054,016	2.3

* Less than one percent.

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- (1) Based in part on a Schedule 13G/A filed with the SEC on February 14, 2020 by MSD Partners, L.P. (“MSD Partners”). MSD Partners is the investment manager of, and may be deemed to beneficially own securities beneficially owned by, MSD Credit Opportunity Master Fund, L.P. MSD Partners (GP), LLC (“MSD GP”) is the general partner of, and may be deemed to beneficially own securities beneficially owned by, MSD Partners. Each of Glenn R. Fuhrman, John C. Phelan and Marc R. Lisker is a manager of, and may be deemed to beneficially own securities beneficially owned by, MSD GP. The 22,101,509 shares includes 6,949,993 out of the 7,575,758 shares of common stock issuable upon the full exercise of a warrant, which is the number of shares issuable upon exercise as limited by the Beneficial Ownership Limitation (as defined below) as of April 24, 2020. Such warrant is only exercisable to the extent that the holder thereof, together with its affiliates, would beneficially own no more than 9.99% of the outstanding shares of our common stock after giving effect to such exercise (the “Beneficial Ownership Limitation”). As a result of the Beneficial Ownership Limitation, the number of shares that may be issued to the holder upon exercise of the warrant may change depending upon changes in the outstanding shares of our common stock. Upon 61 days’ prior notice to the Company, the holder may increase, decrease or terminate the Beneficial Ownership Limitation. The address of MSD Credit Opportunity Master Fund, L.P. is c/o Maples Corporate Services Limited, P.O. Box 309, Uglund House, Grand Cayman, KY1-1104, Cayman Islands.
- (2) Based in part on a Schedule 13G filed with the SEC on February 14, 2020 by Miller Value Partners, LLC (“Miller Value”). Miller Value, an investment adviser, is the beneficial owner of 16,522,144 shares and has shared voting power and shared dispositive power with respect to all such shares. William H. Miller III Living Trust, the control person of Miller Value, may be deemed to exercise voting and/or dispositive power over the shares held for the account of Miller Value. Aggregate beneficial ownership reported by Miller Value includes beneficial ownership of Miller Opportunity Trust, a registered investment company. The 16,522,144 shares includes 3,787,879 shares of common stock issuable upon the exercise of a warrant. Such warrant is only exercisable to the extent that the holder thereof, together with its affiliates, would beneficially own no more than the Beneficial Ownership Limitation. As a result of the Beneficial Ownership Limitation, the number of shares that may be issued to the holder upon exercise of the warrant may change depending upon changes in the outstanding shares of our common stock. Upon 61 days’ prior notice to the Company, the holder may increase, decrease or terminate the Beneficial Ownership Limitation. The address of Miller Value is One South Street, Suite 2550, Baltimore, MD 21202.
- (3) Based in part on a Schedule 13G/A filed with the SEC on January 30, 2020 by White Rock Capital Management, L.P. (“White Rock Management”). White Rock Management may be deemed to exercise voting and/or dispositive power over the shares held for the account of White Rock Capital Partners, L.P. (“White Rock Partners”). The general partner of White Rock Partners is White Rock Management, the general partner of which is White Rock Capital (TX), Inc. Thomas U. Barton and Joseph U. Barton are the shareholders of White Rock Capital (TX), Inc. In such capacities, each of Thomas U. Barton and Joseph U. Barton each may be deemed to be the beneficial owner of the shares held for the account of White Rock Partners. The 13,085,758 shares includes 3,787,879 shares of common stock issuable upon the exercise of a warrant. Such warrant is only exercisable to the extent that the holder thereof, together with its affiliates, would beneficially own no more than the Beneficial Ownership Limitation. As a result of the Beneficial Ownership Limitation, the number of shares that may be issued to the holder upon exercise of the warrant may change depending upon changes in the outstanding shares of our common stock. Upon 61 days’ prior notice to the Company, the holder may increase, decrease or terminate the Beneficial Ownership Limitation. The address of White Rock Partners is 3131 Turtle Creek Boulevard, Suite 800, Dallas, Texas 75219.
- (4) Based solely on a Schedule 13G/A filed with the SEC on February 11, 2020 by The Vanguard Group, Inc. (“Vanguard”). Vanguard is the beneficial owner of 12,595,011 shares and has sole voting power with respect to 340,479 shares and sole dispositive power with respect to 12,269,028 shares, and shared voting power with respect to 9,851 shares and shared dispositive power with respect to 325,983 shares. Aggregate beneficial ownership reported by Vanguard includes beneficial ownership of its subsidiaries, Vanguard Fiduciary Trust Company and Vanguard Investments Australia, Ltd. The address of Vanguard is 100 Vanguard Blvd., Malvern, PA 19355.
- (5) Based solely on a Schedule 13G/A filed with the SEC on February 6, 2020 by Blackrock, Inc. BlackRock, Inc., as a parent holding company, is the beneficial owner of 12,491,719 shares and has sole voting power

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with respect to 12,249,430 shares and sole dispositive power with respect to 12,491,719 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. and BlackRock Investment Management, LLC. The address of BlackRock, Inc. is 55 East 52nd Street, New York, New York 10055.

- (6) Consists of (i) 31,780 shares of common stock held by Mr. Braunstein and (ii) 151,700 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (7) Consists of (i) 71,887 shares of common stock held by Mr. Ezickson and (ii) 25,000 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (8) Consists of 31,780 shares of common stock held by Ms. Hagen.
- (9) Consists of (i) 35,943 shares of common stock held by Mr. Pagán and (ii) 88,350 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (10) Consists of (i) 4,186 shares of common stock held by Mr. Tarriff and (ii) 216,700 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (11) Consists of (i) 1,904,974 shares of common stock held by Dr. Cooper and (ii) 198,963 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (12) Consists of (i) 275,778 shares of common stock held by Dr. Mauney and (ii) 448,130 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (13) Consists of (i) 80,500 shares of common stock held by Mr. Shukla and (ii) 10,325 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (14) Consists of (i) 159,819 shares of common stock held by Mr. Hadfield and (ii) 184,813 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (15) Consists of (i) 81,985 shares of common stock held by Mr. Lafond and (ii) 238,390 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.
- (16) Consists of (i) 3,133,985 shares of common stock and (ii) 1,920,031 shares of common stock issuable upon the exercise of options exercisable within 60 days of April 24, 2020.

HOUSEHOLDING OF PROXY MATERIALS

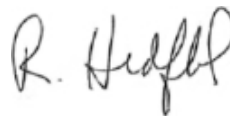
The SEC has adopted rules that permit companies and intermediaries (such as brokers) to satisfy the delivery requirements for Notices of Internet Availability of Proxy Materials or other annual meeting materials with respect to two or more stockholders sharing the same address by delivering a single 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: Legal Affairs Department or contact us 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.

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,

A handwritten signature in black ink, appearing to read "R. Hadfield". The signature is written in a cursive style with a large initial "R" and a stylized "H".

Robert Hadfield
Executive Vice, President, General Counsel and Secretary

May 18, 2020

A copy of the Company's Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2019 is available without charge upon written request to: Corporate Secretary, One First Avenue, Parris Building 34, Navy Yard Plaza, Third Floor Boston, Massachusetts 02129.

**ZIOPHARM ONCOLOGY, INC.
2020 EQUITY INCENTIVE PLAN**

**ADOPTED BY THE BOARD OF DIRECTORS: MAY 4, 2020
APPROVED BY THE STOCKHOLDERS: _____, 2020**

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1. GENERAL.

(a) Successor to and Continuation of Prior Plan. The Plan is the successor to and continuation of the Prior Plan. As of the Effective Date, (i) no additional awards may be granted under the Prior Plan; (ii) the Prior Plan's Available Reserve plus any Returning Shares will become available for issuance pursuant to Awards granted under this Plan in accordance with Section 2; and (iii) all outstanding awards granted under the Prior Plan will remain subject to the terms of the Prior Plan (except to the extent such outstanding awards result in Returning Shares that become available for issuance pursuant to Awards granted under this Plan). All Awards granted under this Plan will be subject to the terms of this Plan.

(b) Plan Purpose. The Company, by means of the Plan, seeks to secure and retain the services of Employees, Directors and Consultants, to provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and to provide a means by which such persons may be given an opportunity to benefit from increases in value of the Common Stock through the granting of Awards.

(c) Available Awards. The Plan provides for the grant of the following Awards: (i) Incentive Stock Options; (ii) Nonstatutory Stock Options; (iii) SARs; (iv) Restricted Stock Awards; (v) RSU Awards; and (vi) Performance Awards.

(d) Adoption Date. The Plan will come into existence on the Adoption Date. No Award may be granted under the Plan prior to the Adoption Date. Any Award granted prior to the Effective Date is contingent upon timely receipt of stockholder approval to the extent required under applicable tax, securities and regulatory rules, and satisfaction of any other compliance requirements.

2. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve. Subject to adjustment in accordance with Section 2(c) and any adjustments as necessary to implement any Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Awards will not exceed (i) 22,066,275 shares (which includes 21,000,000 new shares and the Prior Plan's Available Reserve as of March 31, 2020), *less* (A) one share of Common Stock for every one share that was subject to an Appreciation Award granted under the Prior Plan after March 31, 2020, and prior to the Effective Date and (B) 1.5 shares of Common Stock for every one share that was subject to a Full Value Award granted under the Prior Plan after March 31, 2020, and prior to the Effective Date, plus (ii) the number of Returning Shares, if any, as such shares become available from time to time.

(b) Aggregate Incentive Stock Option Limit. Notwithstanding anything to the contrary in Section 2(a) and subject to any adjustments as necessary to implement any Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options is 30,238,690 shares.

(c) Share Reserve Operation.

(i) Share Counting. Subject to subsection 3(c)(iv), the number of shares of Common Stock available for issuance under the Plan shall be reduced by: (1) one share of Common Stock for each share of Common Stock issued pursuant to an Appreciation Award and (2) 1.5 shares of Common Stock for each share of Common Stock issued pursuant to a Full Value Award. The number of shares of Common Stock available for issuance under the Plan will be increased by: (A) one share of Common Stock for each Returning Share subject to an Appreciation Award and (B) 1.5 shares of Common Stock for each Returning Share subject to a Full Value Award.

(ii) Limit Applies to Shares of Common Stock Issued Pursuant to Awards. For clarity, the Share Reserve is a limit on the number of shares of Common Stock that may be issued pursuant to Awards and does not

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limit the granting of Awards, except that the Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy its obligations to issue shares pursuant to such Awards. Shares may be issued in connection with a merger or acquisition as permitted by, as applicable, Nasdaq Listing Rule 5635(c), NYSE Listed Company Manual Section 303A.08, NYSE American Company Guide Section 711 or other applicable rule, and such issuance will not reduce the number of shares available for issuance under the Plan.

(iii) Actions that Do Not Constitute Issuance of Shares of Common Stock and Do Not Reduce Share Reserve. The following actions do not result in an issuance of shares under the Plan and accordingly do not reduce the number of shares of Common Stock subject to the Share Reserve and available for issuance under the Plan: (1) the expiration or termination of any portion of an Award without the shares covered by such portion of the Award having been issued; (2) the settlement of any portion of an Award in cash (*i.e.*, the Participant receives cash rather than shares of Common Stock); (3) the withholding of shares that would otherwise be issued by the Company to satisfy the exercise, strike or purchase price of a Full Value Award; and (4) the withholding of shares that would otherwise be issued by the Company to satisfy a tax withholding obligation in connection with a Full Value Award.

(iv) Reversion of Previously Issued Shares of Common Stock to Share Reserve.

(1) Shares Available for Subsequent Issuance. The following shares of Common Stock previously issued pursuant to an Award and accordingly initially deducted from the Share Reserve will be added back to the Share Reserve and again become available for issuance under the Plan: (1) any shares that are forfeited back to or redeemed or repurchased by the Company or any Affiliate (in accordance with applicable law) because of a failure to meet a contingency or condition required for the vesting of such shares; (2) any shares that are reacquired by the Company to satisfy the exercise, strike or purchase price of a Full Value Award; and (3) any shares that are reacquired by the Company to satisfy a tax withholding obligation in connection with a Full Value Award. The number of shares of Common Stock that shall revert to and again available for issuance under the Plan pursuant to the foregoing provision shall be: (A) one share of Common Stock for each forfeited, redeemed or repurchased share subject to an Appreciation Award granted under the Plan and (B) 1.5 shares of Common Stock for each forfeited, redeemed or repurchased share subject to a Full Value Award granted under the Plan.

(2) Shares Not Available for Subsequent Issuance. The following shares of Common Stock will not become available again for issuance under the Plan: (A) any shares of Common Stock that are reacquired or withheld (or not issued) by the Company to satisfy the exercise or strike price of an Appreciation Award (including any shares subject to such Appreciation Award that are not delivered because such award is exercised through a reduction of shares subject to such Appreciation Award (*i.e.*, “net exercised”)); (B) any shares that are reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with an Appreciation Award; (C) any shares repurchased by the Company on the open market with the proceeds of the exercise or strike price of an Appreciation Award; and (D) in the event that a Stock Appreciation Right granted under the Plan or a stock appreciation right granted under the Prior Plan is settled in shares of Common Stock, the gross number of shares of Common Stock subject to such award.

3. ELIGIBILITY AND LIMITATIONS.

(a) Eligible Award Recipients. Subject to the terms of the Plan, Employees, Directors and Consultants are eligible to receive Awards.

(b) Specific Award Limitations.

(i) Limitations on Incentive Stock Option Recipients. Incentive Stock Options may be granted only to Employees of the Company or a “parent corporation” or “subsidiary corporation” thereof (as such terms are defined in Sections 424(e) and (f) of the Code).

(ii) Incentive Stock Option \$100,000 Limitation. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds \$100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(iii) Limitations on Incentive Stock Options Granted to Ten Percent Stockholders. A Ten Percent Stockholder may not be granted an Incentive Stock Option unless (i) the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant of such Option and (ii) the Option is not exercisable after the expiration of five years from the date of grant of such Option.

(iv) Limitations on Nonstatutory Stock Options and SARs. Nonstatutory Stock Options and SARs may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any “parent” of the Company (as such term is defined in Rule 405) unless the stock underlying such Awards is treated as “service recipient stock” under Section 409A because the Awards are granted pursuant to a corporate transaction (such as a spin off transaction) or unless such Awards otherwise comply with the distribution requirements of Section 409A.

(c) Aggregate Incentive Stock Option Limit. The aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options is the number of shares specified in Section 2(b).

4. OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option and SAR will have such terms and conditions as determined by the Board. Each Option will be designated in writing as an Incentive Stock Option or Nonstatutory Stock Option at the time of grant; provided, however, that if an Option is not so designated, then such Option will be a Nonstatutory Stock Option, and the shares purchased upon exercise of each type of Option will be separately accounted for. Each SAR will be denominated in shares of Common Stock equivalents. The terms and conditions of separate Options and SARs need not be identical; provided, however, that each Option Agreement and SAR Agreement will conform (through incorporation of provisions hereof by reference in the Award Agreement or otherwise) to the substance of each of the following provisions:

(a) Term. Subject to Section 3(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of ten years from the date of grant of such Award or such shorter period specified in the Award Agreement.

(b) Exercise or Strike Price. Subject to Section 3(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will not be less than 100% of the Fair Market Value on the date of grant of such Award. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value on the date of grant of such Award if such Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Transaction and in a manner consistent with the provisions of Sections 409A and, if applicable, 424(a) of the Code.

(c) Exercise Procedure and Payment of Exercise Price for Options. In order to exercise an Option, the Participant must provide notice of exercise to the Plan Administrator in accordance with the procedures specified in the Option Agreement or otherwise provided by the Company. The Board has the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to utilize a particular method of payment.

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The exercise price of an Option may be paid, to the extent permitted by Applicable Law and as determined by the Board, by one or more of the following methods of payment to the extent set forth in the Option Agreement:

(i) by cash or check, bank draft or money order payable to the Company;

(ii) pursuant to a “cashless exercise” program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the Common Stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock that are already owned by the Participant free and clear of any liens, claims, encumbrances or security interests, with a Fair Market Value on the date of exercise that does not exceed the exercise price, provided that (1) at the time of exercise the Common Stock is publicly traded, (2) any remaining balance of the exercise price not satisfied by such delivery is paid by the Participant in cash or other permitted form of payment, (3) such delivery would not violate any Applicable Law or agreement restricting the redemption of the Common Stock, (4) any certificated shares are endorsed or accompanied by an executed assignment separate from certificate, and (5) such shares have been held by the Participant for any minimum period necessary to avoid adverse accounting treatment as a result of such delivery;

(iv) if the Option is a Nonstatutory Stock Option, by a “net exercise” arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value on the date of exercise that does not exceed the exercise price, provided that (1) such shares used to pay the exercise price will not be exercisable thereafter and (2) any remaining balance of the exercise price not satisfied by such net exercise is paid by the Participant in cash or other permitted form of payment; or

(v) in any other form of consideration that may be acceptable to the Board and permissible under Applicable Law.

(d) Exercise Procedure and Payment of Appreciation Distribution for SARs. In order to exercise any SAR, the Participant must provide notice of exercise to the Plan Administrator in accordance with the SAR Agreement. The appreciation distribution payable to a Participant upon the exercise of a SAR will not be greater than an amount equal to the excess of (i) the aggregate Fair Market Value on the date of exercise of a number of shares of Common Stock equal to the number of Common Stock equivalents that are vested and being exercised under such SAR, over (ii) the strike price of such SAR. Such appreciation distribution may be paid to the Participant in the form of Common Stock or cash (or any combination of Common Stock and cash) or in any other form of payment, as determined by the Board and specified in the SAR Agreement.

(e) Transferability. Options and SARs may not be transferred to third party financial institutions for value. The Board may impose such additional limitations on the transferability of an Option or SAR as it determines. In the absence of any such determination by the Board, the following restrictions on the transferability of Options and SARs will apply, provided that except as explicitly provided herein, neither an Option nor a SAR may be transferred for consideration and *provided, further*, that if an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer:

(i) Restrictions on Transfer. An Option or SAR will not be transferable, except by will or by the laws of descent and distribution, and will be exercisable during the lifetime of the Participant only by the Participant; provided, however, that the Board may permit transfer of an Option or SAR in a manner that is not prohibited by applicable tax and securities laws upon the Participant’s request, including to a trust if the Participant is considered to be the sole beneficial owner of such trust (as determined under Section 671 of the Code and applicable state law) while such Option or SAR is held in such trust, provided that the Participant and the trustee enter into a transfer and other agreements required by the Company.

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(ii) Domestic Relations Orders. Notwithstanding the foregoing, subject to the execution of transfer documentation in a format acceptable to the Company and subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to a domestic relations order.

(f) Vesting. The Board may impose such restrictions on or conditions to the vesting and/or exercisability of an Option or SAR as determined by the Board. Except as otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, vesting of Options and SARs will cease upon termination of the Participant's Continuous Service.

(g) Termination of Continuous Service for Cause. Except as explicitly otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, if a Participant's Continuous Service is terminated for Cause, the Participant's Options and SARs will terminate and be forfeited immediately upon such termination of Continuous Service, and the Participant will be prohibited from exercising any portion (including any vested portion) of such Awards on and after the date of such termination of Continuous Service and the Participant will have no further right, title or interest in such forfeited Award, the shares of Common Stock subject to the forfeited Award, or any consideration in respect of the forfeited Award.

(h) Post-Termination Exercise Period Following Termination of Continuous Service for Reasons Other than Cause. Except as otherwise provided in the Award Agreement or other written agreement between Participant and the Company or an Affiliate, subject to Section 4(i), if a Participant's Continuous Service terminates for any reason other than for Cause, the Participant may exercise his or her Option or SAR to the extent vested, but only within the following period of time or, if applicable, such other period of time provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate; provided, however, that in no event may such Award be exercised after the expiration of its maximum term (as set forth in Section 4(a)):

(i) three months following the date of such termination if such termination is a termination without Cause (other than any termination due to the Participant's Disability or death);

(ii) 12 months following the date of such termination if such termination is due to the Participant's Disability;

(iii) 18 months following the date of such termination if such termination is due to the Participant's death; or

(iv) 18 months following the date of the Participant's death if such death occurs following the date of such termination but during the period such Award is otherwise exercisable (as provided in (i) or (ii) above).

Following the date of such termination, to the extent the Participant does not exercise such Award within the applicable Post-Termination Exercise Period (or, if earlier, prior to the expiration of the maximum term of such Award), such unexercised portion of the Award will terminate, and the Participant will have no further right, title or interest in the terminated Award, the shares of Common Stock subject to the terminated Award, or any consideration in respect of the terminated Award.

(i) Restrictions on Exercise; Extension of Exercisability. A Participant may not exercise an Option or SAR at any time that the issuance of shares of Common Stock upon such exercise would violate Applicable Law. Except as otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, if a Participant's Continuous Service terminates for any reason other than for Cause and, at any time during the last thirty days of the applicable Post-Termination Exercise Period: (i) the exercise of the Participant's Option or SAR would be prohibited solely because the issuance of shares of Common Stock upon such exercise would violate Applicable Law, or (ii) the immediate sale of any shares of Common Stock issued upon such exercise would violate the Company's Trading Policy, then the applicable Post-Termination

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Exercise Period will be extended to the last day of the calendar month that commences following the date the Award would otherwise expire, with an additional extension of the exercise period to the last day of the next calendar month to apply if any of the foregoing restrictions apply at any time during such extended exercise period, generally without limitation as to the maximum permitted number of extensions); *provided, however*, that in no event may such Award be exercised after the expiration of its maximum term (as set forth in Section 4(a)).

(j) Non-Exempt Employees. No Option or SAR, whether or not vested, granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, will be first exercisable for any shares of Common Stock until at least six months following the date of grant of such Award. Notwithstanding the foregoing, in accordance with the provisions of the Worker Economic Opportunity Act, any vested portion of such Award may be exercised earlier than six months following the date of grant of such Award in the event of (i) such Participant's death or Disability, (ii) a Transaction in which such Award is not assumed, continued or substituted, (iii) a Change in Control, or (iv) such Participant's retirement (as such term may be defined in the Award Agreement or another applicable agreement or, in the absence of any such definition, in accordance with the Company's then current employment policies and guidelines). This Section 4(j) is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay.

(k) Whole Shares. Options and SARs may be exercised only with respect to whole shares of Common Stock or their equivalents.

5. AWARDS OTHER THAN OPTIONS AND STOCK APPRECIATION RIGHTS.

(a) Restricted Stock Awards and RSU Awards. Each Restricted Stock Award and RSU Award will have such terms and conditions as determined by the Board; provided, however, that each Restricted Stock Award Agreement and RSU Award Agreement will conform (through incorporation of the provisions hereof by reference in the Award Agreement or otherwise) to the substance of each of the following provisions:

(i) Form of Award.

(1) RSAs: To the extent consistent with the Company's Bylaws, at the Board's election, shares of Common Stock subject to a Restricted Stock Award may be (i) held in book entry form subject to the Company's instructions until such shares become vested or any other restrictions lapse, or (ii) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. Unless otherwise determined by the Board, a Participant will have voting and other rights as a stockholder of the Company with respect to any shares subject to a Restricted Stock Award.

(2) RSUs: A RSU Award represents a Participant's right to be issued on a future date the number of shares of Common Stock that is equal to the number of restricted stock units subject to the RSU Award. As a holder of a RSU Award, a Participant is an unsecured creditor of the Company with respect to the Company's unfunded obligation, if any, to issue shares of Common Stock in settlement of such Award and nothing contained in the Plan or any RSU Agreement, and no action taken pursuant to its provisions, will create or be construed to create a trust of any kind or a fiduciary relationship between a Participant and the Company or an Affiliate or any other person. A Participant will not have voting or any other rights as a stockholder of the Company with respect to any RSU Award (unless and until shares are actually issued in settlement of a vested RSU Award).

(ii) Consideration.

(1) RSA: A Restricted Stock Award may be granted in consideration for (A) cash or check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of consideration (including future services) as the Board may determine and permissible under Applicable Law.

(2) **RSU:** Unless otherwise determined by the Board at the time of grant, a RSU Award will be granted in consideration for the Participant's services to the Company or an Affiliate, such that the Participant will not be required to make any payment to the Company (other than such services) with respect to the grant or vesting of the RSU Award, or the issuance of any shares of Common Stock pursuant to the RSU Award. If, at the time of grant, the Board determines that any consideration must be paid by the Participant (in a form other than the Participant's services to the Company or an Affiliate) upon the issuance of any shares of Common Stock in settlement of the RSU Award, such consideration may be paid in any form of consideration as the Board may determine and permissible under Applicable Law.

(iii) **Vesting.** The Board may impose such restrictions on or conditions to the vesting of a Restricted Stock Award or RSU Award as determined by the Board. Except as otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, vesting of Restricted Stock Awards and RSU Awards will cease upon termination of the Participant's Continuous Service.

(iv) **Termination of Continuous Service.** Except as otherwise provided in the Award Agreement or other written agreement between a Participant and the Company or an Affiliate, if a Participant's Continuous Service terminates for any reason, (i) the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant under his or her Restricted Stock Award that have not vested as of the date of such termination as set forth in the Restricted Stock Award Agreement and (ii) any portion of his or her RSU Award that has not vested will be forfeited upon such termination and the Participant will have no further right, title or interest in the RSU Award, the shares of Common Stock issuable pursuant to the RSU Award, or any consideration in respect of the RSU Award.

(v) **Settlement of RSU Awards.** A RSU Award may be settled by the issuance of shares of Common Stock or cash (or any combination thereof) or in any other form of payment, as determined by the Board and specified in the RSU Award Agreement. At the time of grant, the Board may determine to impose such restrictions or conditions that delay such delivery to a date following the vesting of the RSU Award.

(b) **Performance Awards.** With respect to any Performance Award, the length of any Performance Period, the Performance Goals to be achieved during the Performance Period, the other terms and conditions of such Award, and the measure of whether and to what degree such Performance Goals have been attained will be determined by the Board.

6. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) **Capitalization Adjustments.** In the event of a Capitalization Adjustment, the Board shall appropriately and proportionately adjust: (i) the class(es) and maximum number of shares of Common Stock subject to the Plan pursuant to Section 2(a), (ii) the class(es) and maximum number of shares that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 2(b), and (iii) the class(es) and number of securities and exercise price, strike price or purchase price of Common Stock subject to outstanding Awards. The Board shall make such adjustments, and its determination shall be final, binding and conclusive. Notwithstanding the foregoing, no fractional shares or rights for fractional shares of Common Stock shall be created in order to implement any Capitalization Adjustment. The Board shall determine an appropriate equivalent benefit, if any, for any fractional shares or rights to fractional shares that might be created by the adjustments referred to in the preceding provisions of this Section.

(b) **Dissolution or Liquidation.** Except as otherwise provided in the Award Agreement or other written agreement between the Participant and the Company or an Affiliate, in the event of a dissolution or liquidation of the Company, all outstanding Awards (other than Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the

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Company notwithstanding the fact that the holder of such Award is providing Continuous Service, provided, however, that the Board may determine to cause some or all Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) Transaction. The following provisions will apply to Awards in the event of a Transaction unless otherwise provided in the instrument evidencing the Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of an Award.

(i) Awards May Be Assumed. In the event of a Transaction, any surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) may assume or continue any or all Awards outstanding under the Plan or may substitute similar awards for Awards outstanding under the Plan (including but not limited to, awards to acquire the same consideration paid to the stockholders of the Company pursuant to the Transaction), and any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to Awards may be assigned by the Company to the successor of the Company (or the successor's parent company, if any), in connection with such Transaction. A surviving corporation or acquiring corporation (or its parent) may choose to assume or continue only a portion of an Award or substitute a similar award for only a portion of an Award, or may choose to assume or continue the Awards held by some, but not all Participants. The terms of any assumption, continuation or substitution will be set by the Board.

(ii) Awards Held by Current Participants. In the event of a Transaction in which the surviving corporation or acquiring corporation (or its parent company) does not assume or continue such outstanding Awards or substitute similar awards for such outstanding Awards, then with respect to Awards that have not been assumed, continued or substituted and that are held by Participants whose Continuous Service has not terminated prior to the effective time of the Transaction (referred to as the "**Current Participants**"), the vesting of such Awards (and, with respect to Options and Stock Appreciation Rights, the time when such Awards may be exercised) will be accelerated in full to a date prior to the effective time of such Transaction (contingent upon the effectiveness of the Transaction) as the Board determines (or, if the Board does not determine such a date, to the date that is five (5) days prior to the effective time of the Transaction), and such Awards will terminate if not exercised (if applicable) at or prior to the effective time of the Transaction, and any reacquisition or repurchase rights held by the Company with respect to such Awards will lapse (contingent upon the effectiveness of the Transaction). With respect to the vesting of Performance Awards that will accelerate upon the occurrence of a Transaction pursuant to this subsection (ii) and that have multiple vesting levels depending on the level of performance, unless otherwise provided in the Award Agreement, the vesting of such Performance Awards will accelerate at 100% of the target level upon the occurrence of the Transaction. With respect to the vesting of Awards that will accelerate upon the occurrence of a Transaction pursuant to this subsection (ii) and are settled in the form of a cash payment, such cash payment will be made no later than 30 days following the occurrence of the Transaction.

(iii) Awards Held by Persons other than Current Participants. In the event of a Transaction in which the surviving corporation or acquiring corporation (or its parent company) does not assume or continue such outstanding Awards or substitute similar awards for such outstanding Awards, then with respect to Awards that have not been assumed, continued or substituted and that are held by persons other than Current Participants, such Awards will terminate if not exercised (if applicable) prior to the occurrence of the Transaction; provided, however, that any reacquisition or repurchase rights held by the Company with respect to such Awards will not terminate and may continue to be exercised notwithstanding the Transaction.

(iv) Payment for Awards in Lieu of Exercise. Notwithstanding the foregoing, in the event an Award will terminate if not exercised prior to the effective time of a Transaction, the Board may provide, in its sole discretion, that the holder of such Award may not exercise such Award but will receive a payment, in such form as may be determined by the Board, equal in value, at the effective time, to the excess, if any, of (1) the

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value of the property the Participant would have received upon the exercise of the Award (including, at the discretion of the Board, any unvested portion of such Award), over (2) any exercise price payable by such holder in connection with such exercise.

(d) Appointment of Stockholder Representative. As a condition to the receipt of an Award under this Plan, a Participant will be deemed to have agreed that the Award will be subject to the terms of any agreement governing a Transaction involving the Company, including, without limitation, a provision for the appointment of a stockholder representative that is authorized to act on the Participant's behalf with respect to any escrow, indemnities and any contingent consideration.

(e) No Restriction on Right to Undertake Transactions. The grant of any Award under the Plan and the issuance of shares pursuant to any Award does not affect or restrict in any way the right or power of the Company or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, any merger or consolidation of the Company, any issue of stock or of options, rights or options to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

7. ADMINISTRATION.

(a) Administration by Board. The Board will administer the Plan unless and until the Board delegates administration of the Plan to a Committee or Committees, as provided in subsection (c) below.

(b) Powers of Board. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine from time to time (1) which of the persons eligible under the Plan will be granted Awards; (2) when and how each Award will be granted; (3) what type or combination of types of Award will be granted; (4) the provisions of each Award granted (which need not be identical), including the time or times when a person will be permitted to receive an issuance of Common Stock or other payment pursuant to an Award; (5) the number of shares of Common Stock or cash equivalent with respect to which an Award will be granted to each such person; and (6) the Fair Market Value applicable to an Award.

(ii) To construe and interpret the Plan and Awards granted under it, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Award Agreement, in a manner and to the extent it deems necessary or expedient to make the Plan or Award fully effective.

(iii) To settle all controversies regarding the Plan and Awards granted under it.

(iv) To accelerate the time at which an Award may first be exercised or the time during which an Award or any part thereof will vest, notwithstanding the provisions in the Award Agreement stating the time at which it may first be exercised or the time during which it will vest.

(v) To prohibit the exercise of any Option, SAR or other exercisable Award during a period of up to 30 days prior to the consummation of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the shares of Common Stock or the share price of the Common Stock including any Transaction, for reasons of administrative convenience.

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(vi) To suspend or terminate the Plan at any time. Suspension or termination of the Plan will not Materially Impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant.

(vii) To amend the Plan in any respect the Board deems necessary or advisable; provided, however, that stockholder approval will be required for any amendment to the extent required by Applicable Law. Except as provided above, rights under any Award granted before amendment of the Plan will not be Materially Impaired by any amendment of the Plan unless (1) the Company requests the consent of the affected Participant, and (2) such Participant consents in writing.

(viii) To submit any amendment to the Plan for stockholder approval.

(ix) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided however*, that, a Participant's rights under any Award will not be Materially Impaired by any such amendment unless (1) the Company requests the consent of the affected Participant, and (2) such Participant consents in writing.

(x) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Awards.

(xi) To adopt such procedures and sub-plans as are necessary or appropriate to permit and facilitate participation in the Plan by, or take advantage of specific tax treatment for Awards granted to, Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval will not be necessary for immaterial modifications to the Plan or any Award Agreement to ensure or facilitate compliance with the laws of the relevant foreign jurisdiction).

(c) Delegation to Committee.

(i) **General.** The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to another Committee or a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. Each Committee may retain the authority to concurrently administer the Plan with Committee or subcommittee to which it has delegated its authority hereunder and may, at any time, revert in such Committee some or all of the powers previously delegated. The Board may retain the authority to concurrently administer the Plan with any Committee and may, at any time, revert in the Board some or all of the powers previously delegated.

(ii) **Rule 16b-3 Compliance.** To the extent an Award is intended to qualify for the exemption from Section 16(b) of the Exchange Act that is available under Rule 16b-3 of the Exchange Act, the Award will be granted by the Board or a Committee that consists solely of two or more Non-Employee Directors, as determined under Rule 16b-3(b)(3) of the Exchange Act and thereafter any action establishing or modifying the terms of the Award will be approved by the Board or a Committee meeting such requirements to the extent necessary for such exemption to remain available.

(d) **Effect of Board's Decision.** All determinations, interpretations and constructions made by the Board or any Committee in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

(e) Cancellation and Re-Grant of Awards. Neither the Board nor any Committee will have the authority to: (i) reduce the exercise price or strike price of any outstanding Options or SARs under the Plan, (ii) cancel any outstanding Options or SARs that have an exercise price or strike price greater than the current Fair Market Value in exchange for cash or other Awards under the Plan (other than in connection with a Transaction), or (iii) take any other action with respect to an Option or SAR that would be treated as a repricing under the rules and regulations of the principal U.S. national securities exchange on which the Common Stock is listed, in each case unless the stockholders of the Company have approved such an action within twelve months prior to such an event.

(f) Delegation to an Officer. The Board or any Committee may delegate to one or more Officers the authority to do one or both of the following (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by Applicable Law, other types of Awards) and, to the extent permitted by Applicable Law, the terms thereof, and (ii) determine the number of shares of Common Stock to be subject to such Awards granted to such Employees; provided, however, that the resolutions or charter adopted by the Board or any Committee evidencing such delegation will specify the total number of shares of Common Stock that may be subject to the Awards granted by such Officer and that such Officer may not grant an Award to himself or herself. Any such Awards will be granted on the applicable form of Award Agreement most recently approved for use by the Board or the Committee, unless otherwise provided in the resolutions approving the delegation authority. Notwithstanding anything to the contrary herein, neither the Board nor any Committee may delegate to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) the authority to determine the Fair Market Value.

8. TAX WITHHOLDING

(a) Withholding Authorization. As a condition to acceptance of any Award under the Plan, a Participant authorizes withholding from payroll and any other amounts payable to such Participant, and otherwise agrees to make adequate provision for (including), any sums required to satisfy any U.S. federal, state, local and/or foreign tax or social insurance contribution withholding obligations of the Company or an Affiliate, if any, which arise in connection with the grant, exercise, vesting or settlement of such Award, as applicable. Accordingly, a Participant may not be able to exercise an Award even though the Award is vested, and the Company shall have no obligation to issue shares of Common Stock subject to an Award, unless and until such obligations are satisfied.

(b) Satisfaction of Withholding Obligation. To the extent permitted by the terms of an Award Agreement, the Company may, in its sole discretion, satisfy any U.S. federal, state, local and/or foreign tax or social insurance withholding obligation relating to an Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Award; (iii) withholding cash from an Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; (v) by allowing a Participant to effectuate a “cashless exercise” pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board, or (vi) by such other method as may be set forth in the Award Agreement.

(c) No Obligation to Notify or Minimize Taxes; No Liability to Claims. Except as required by Applicable Law the Company has no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Award. Furthermore, the Company has no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of an Award or a possible period in which the Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of an Award to the holder of such Award and will not be liable to any holder of an Award for any adverse tax consequences to such holder in connection with an Award. As a condition to accepting an Award under the Plan, each Participant (i) agrees to not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from such Award or other Company compensation and (ii) acknowledges that such Participant was advised to consult with his or her own personal tax, financial and other legal advisors

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regarding the tax consequences of the Award and has either done so or knowingly and voluntarily declined to do so. Additionally, each Participant acknowledges any Option or SAR granted under the Plan is exempt from Section 409A only if the exercise or strike price is at least equal to the “fair market value” of the Common Stock on the date of grant as determined by the Internal Revenue Service and there is no other impermissible deferral of compensation associated with the Award. Additionally, as a condition to accepting an Option or SAR granted under the Plan, each Participant agrees not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates in the event that the Internal Revenue Service asserts that such exercise price or strike price is less than the “fair market value” of the Common Stock on the date of grant as subsequently determined by the Internal Revenue Service.

(d) Withholding Indemnification. As a condition to accepting an Award under the Plan, in the event that the amount of the Company’s and/or its Affiliate’s withholding obligation in connection with such Award was greater than the amount actually withheld by the Company and/or its Affiliates, each Participant agrees to indemnify and hold the Company and/or its Affiliates harmless from any failure by the Company and/or its Affiliates to withhold the proper amount.

9. MISCELLANEOUS.

(a) Dividends and Dividend Equivalents. Dividends or dividend equivalents may be paid or credited, as applicable, with respect to any shares of Common Stock subject to an Award other than an Option or Stock Appreciation Right, as determined by the Board and contained in the applicable Award Agreement; *provided, however*, that (i) no dividends or dividend equivalents may be paid with respect to any such shares before the date such shares have vested under the terms of such Award Agreement, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of such Award Agreement (including, but not limited to, any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to the Company on the date, if any, such shares are forfeited to or repurchased by the Company due to a failure to meet any vesting conditions under the terms of such Award Agreement.

(b) Source of Shares. The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

(c) Use of Proceeds from Sales of Common Stock. Proceeds from the sale of shares of Common Stock pursuant to Awards will constitute general funds of the Company.

(d) Corporate Action Constituting Grant of Awards. Corporate action constituting a grant by the Company of an Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (e.g., Board consents, resolutions or minutes) documenting the corporate action approving the grant contain terms (e.g., exercise price, vesting schedule or number of shares) that are inconsistent with those in the Award Agreement or related grant documents as a result of a clerical error in the Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Award Agreement or related grant documents.

(e) Stockholder Rights. No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Award unless and until (i) such Participant has satisfied all requirements for exercise of the Award pursuant to its terms, if applicable, and (ii) the issuance of the Common Stock subject to such Award is reflected in the records of the Company.

(f) No Employment or Other Service Rights. Nothing in the Plan, any Award Agreement or any other instrument executed thereunder or in connection with any Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the

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Award was granted or affect the right of the Company or an Affiliate to terminate at will and without regard to any future vesting opportunity that a Participant may have with respect to any Award (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the Bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state or foreign jurisdiction in which the Company or the Affiliate is incorporated, as the case may be. Further, nothing in the Plan, any Award Agreement or any other instrument executed thereunder or in connection with any Award will constitute any promise or commitment by the Company or an Affiliate regarding the fact or nature of future positions, future work assignments, future compensation or any other term or condition of employment or service or confer any right or benefit under the Award or the Plan unless such right or benefit has specifically accrued under the terms of the Award Agreement and/or Plan.

(g) Change in Time Commitment. In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Award to the Participant, the Board may determine, to the extent permitted by Applicable Law, to (i) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (ii) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Award that is so reduced or extended.

(h) Execution of Additional Documents. As a condition to accepting an Award under the Plan, the Participant agrees to execute any additional documents or instruments necessary or desirable, as determined in the Plan Administrator's sole discretion, to carry out the purposes or intent of the Award, or facilitate compliance with securities and/or other regulatory requirements, in each case at the Plan Administrator's request.

(i) Electronic Delivery and Participation. Any reference herein or in an Award Agreement to a "written" agreement or document will include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto) or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access). By accepting any Award the Participant consents to receive documents by electronic delivery and to participate in the Plan through any on-line electronic system established and maintained by the Plan Administrator or another third party selected by the Plan Administrator. The form of delivery of any Common Stock (e.g., a stock certificate or electronic entry evidencing such shares) shall be determined by the Company.

(j) Clawback/Recovery. All Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other Applicable Law and any clawback policy that the Company otherwise adopts, to the extent applicable and permissible under Applicable Law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Board determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a Participant's right to voluntarily terminate employment upon a "resignation for good reason," or for a "constructive termination" or any similar term under any plan of or agreement with the Company.

(k) Securities Law Compliance. A Participant will not be issued any shares in respect of an Award unless either (i) the shares are registered under the Securities Act; or (ii) the Company has determined that such issuance

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would be exempt from the registration requirements of the Securities Act. Each Award also must comply with other Applicable Law governing the Award, and a Participant will not receive such shares if the Company determines that such receipt would not be in material compliance with Applicable Law.

(l) Transfer or Assignment of Awards; Issued Shares. Except as expressly provided in the Plan or the form of Award Agreement, Awards granted under the Plan may not be transferred or assigned by the Participant. After the vested shares subject to an Award have been issued, or in the case of Restricted Stock and similar awards, after the issued shares have vested, the holder of such shares is free to assign, hypothecate, donate, encumber or otherwise dispose of any interest in such shares provided that any such actions are in compliance with the provisions herein, the terms of the Trading Policy and Applicable Law.

(m) Effect on Other Employee Benefit Plans. The value of any Award granted under the Plan, as determined upon grant, vesting or settlement, shall not be included as compensation, earnings, salaries, or other similar terms used when calculating any Participant's benefits under any employee benefit plan sponsored by the Company or any Affiliate, except as such plan otherwise expressly provides. The Company expressly reserves its rights to amend, modify, or terminate any of the Company's or any Affiliate's employee benefit plans.

(n) Deferrals. To the extent permitted by Applicable Law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Award may be deferred and may also establish programs and procedures for deferral elections to be made by Participants. Deferrals will be made in accordance with the requirements of Section 409A.

(o) Section 409A. Unless otherwise expressly provided for in an Award Agreement, the Plan and Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Awards granted hereunder exempt from Section 409A, and, to the extent not so exempt, in compliance with the requirements of Section 409A. If the Board determines that any Award granted hereunder is not exempt from and is therefore subject to Section 409A, the Award Agreement evidencing such Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and to the extent an Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding an Award that constitutes "deferred compensation" under Section 409A is a "specified employee" for purposes of Section 409A, no distribution or payment of any amount that is due because of a "separation from service" (as defined in Section 409A without regard to alternative definitions thereunder) will be issued or paid before the date that is six months and one day following the date of such Participant's "separation from service" or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

(p) Choice of Law. This Plan and any controversy arising out of or relating to this Plan shall be governed by, and construed in accordance with, the internal laws of the State of Delaware, without regard to conflict of law principles that would result in any application of any law other than the law of the State of Delaware.

10. COVENANTS OF THE COMPANY.

(a) Compliance with Law. The Company will seek to obtain from each regulatory commission or agency, as may be deemed to be necessary, having jurisdiction over the Plan such authority as may be required to grant Awards and to issue and sell shares of Common Stock upon exercise or vesting of the Awards; provided, however, that this undertaking will not require the Company to register under the Securities Act the Plan, any Award or any Common Stock issued or issuable pursuant to any such Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary or advisable for the lawful issuance and sale of Common Stock

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under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise or vesting of such Awards unless and until such authority is obtained. A Participant is not eligible for the grant of an Award or the subsequent issuance of Common Stock pursuant to the Award if such grant or issuance would be in violation of any Applicable Law.

11. ADDITIONAL RULES FOR AWARDS SUBJECT TO SECTION 409A.

(a) Application. Unless the provisions of this Section of the Plan are expressly superseded by the provisions in the form of Award Agreement, the provisions of this Section shall apply and shall supersede anything to the contrary set forth in the Award Agreement for a Non-Exempt Award.

(b) Non-Exempt Awards Subject to Non-Exempt Severance Arrangements. To the extent a Non-Exempt Award is subject to Section 409A due to application of a Non-Exempt Severance Arrangement, the following provisions of this subsection (b) apply.

(i) If the Non-Exempt Award vests in the ordinary course during the Participant's Continuous Service in accordance with the vesting schedule set forth in the Award Agreement, and does not accelerate vesting under the terms of a Non-Exempt Severance Arrangement, in no event will the shares be issued in respect of such Non-Exempt Award any later than the later of: (i) December 31st of the calendar year that includes the applicable vesting date, or (ii) the 60th day that follows the applicable vesting date.

(ii) If vesting of the Non-Exempt Award accelerates under the terms of a Non-Exempt Severance Arrangement in connection with the Participant's Separation from Service, and such vesting acceleration provisions were in effect as of the date of grant of the Non-Exempt Award and, therefore, are part of the terms of such Non-Exempt Award as of the date of grant, then the shares will be earlier issued in settlement of such Non-Exempt Award upon the Participant's Separation from Service in accordance with the terms of the Non-Exempt Severance Arrangement, but in no event later than the 60th day that follows the date of the Participant's Separation from Service. However, if at the time the shares would otherwise be issued the Participant is subject to the distribution limitations contained in Section 409A applicable to "specified employees," as defined in Section 409A(a)(2)(B)(i) of the Code, such shares shall not be issued before the date that is six months following the date of such Participant's Separation from Service, or, if earlier, the date of the Participant's death that occurs within such six month period.

(iii) If vesting of a Non-Exempt Award accelerates under the terms of a Non-Exempt Severance Arrangement in connection with a Participant's Separation from Service, and such vesting acceleration provisions were not in effect as of the date of grant of the Non-Exempt Award and, therefore, are not a part of the terms of such Non-Exempt Award on the date of grant, then such acceleration of vesting of the Non-Exempt Award shall not accelerate the issuance date of the shares, but the shares shall instead be issued on the same schedule as set forth in the Grant Notice as if they had vested in the ordinary course during the Participant's Continuous Service, notwithstanding the vesting acceleration of the Non-Exempt Award. Such issuance schedule is intended to satisfy the requirements of payment on a specified date or pursuant to a fixed schedule, as provided under Treasury Regulations Section 1.409A-3(a)(4).

(c) Treatment of Non-Exempt Awards Upon a Transaction for Employees and Consultants. The provisions of this subsection (c) shall apply and shall supersede anything to the contrary set forth in the Plan with respect to the permitted treatment of any Non-Exempt Award in connection with a Transaction if the Participant was either an Employee or Consultant upon the applicable date of grant of the Non-Exempt Award.

(i) Vested Non-Exempt Awards. The following provisions shall apply to any Vested Non-Exempt Award in connection with a Transaction:

(1) If the Transaction is also a Section 409A Change in Control then the Acquiring Entity may not assume, continue or substitute the Vested Non-Exempt Award. Upon the Section 409A Change in Control the

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settlement of the Vested Non-Exempt Award will automatically be accelerated and the shares will be immediately issued in respect of the Vested Non-Exempt Award. Alternatively, the Company may instead provide that the Participant will receive a cash settlement equal to the Fair Market Value of the shares that would otherwise be issued to the Participant upon the Section 409A Change in Control.

(2) If the Transaction is not also a Section 409A Change in Control, then the Acquiring Entity must either assume, continue or substitute each Vested Non-Exempt Award. The shares to be issued in respect of the Vested Non-Exempt Award shall be issued to the Participant by the Acquiring Entity on the same schedule that the shares would have been issued to the Participant if the Transaction had not occurred. In the Acquiring Entity's discretion, in lieu of an issuance of shares, the Acquiring Entity may instead substitute a cash payment on each applicable issuance date, equal to the Fair Market Value of the shares that would otherwise be issued to the Participant on such issuance dates, with the determination of the Fair Market Value of the shares made on the date of the Transaction.

(ii) Unvested Non-Exempt Awards. The following provisions shall apply to any Unvested Non-Exempt Award unless otherwise determined by the Board pursuant to subsection (e) of this Section.

(1) In the event of a Transaction, the Acquiring Entity shall assume, continue or substitute any Unvested Non-Exempt Award. Unless otherwise determined by the Board, any Unvested Non-Exempt Award will remain subject to the same vesting and forfeiture restrictions that were applicable to the Award prior to the Transaction. The shares to be issued in respect of any Unvested Non-Exempt Award shall be issued to the Participant by the Acquiring Entity on the same schedule that the shares would have been issued to the Participant if the Transaction had not occurred. In the Acquiring Entity's discretion, in lieu of an issuance of shares, the Acquiring Entity may instead substitute a cash payment on each applicable issuance date, equal to the Fair Market Value of the shares that would otherwise be issued to the Participant on such issuance dates, with the determination of Fair Market Value of the shares made on the date of the Transaction.

(2) If the Acquiring Entity will not assume, substitute or continue any Unvested Non-Exempt Award in connection with a Transaction, then such Award shall automatically terminate and be forfeited upon the Transaction with no consideration payable to any Participant in respect of such forfeited Unvested Non-Exempt Award. Notwithstanding the foregoing, to the extent permitted and in compliance with the requirements of Section 409A, the Board may in its discretion determine to elect to accelerate the vesting and settlement of the Unvested Non-Exempt Award upon the Transaction, or instead substitute a cash payment equal to the Fair Market Value of such shares that would otherwise be issued to the Participant, as further provided in subsection (e)(ii) below. In the absence of such discretionary election by the Board, any Unvested Non-Exempt Award shall be forfeited without payment of any consideration to the affected Participants if the Acquiring Entity will not assume, substitute or continue the Unvested Non-Exempt Awards in connection with the Transaction.

(3) The foregoing treatment shall apply with respect to all Unvested Non-Exempt Awards upon any Transaction, and regardless of whether or not such Transaction is also a Section 409A Change in Control.

(d) Treatment of Non-Exempt Awards Upon a Transaction for Non-Employee Directors. The following provisions of this subsection (d) shall apply and shall supersede anything to the contrary that may be set forth in the Plan with respect to the permitted treatment of a Non-Exempt Director Award in connection with a Transaction.

(i) If the Transaction is also a Section 409A Change in Control then the Acquiring Entity may not assume, continue or substitute the Non-Exempt Director Award. Upon the Section 409A Change in Control the vesting and settlement of any Non-Exempt Director Award will automatically be accelerated and the shares will be immediately issued to the Participant in respect of the Non-Exempt Director Award. Alternatively, the Company may provide that the Participant will instead receive a cash settlement equal to the Fair Market Value of the shares that would otherwise be issued to the Participant upon the Section 409A Change in Control pursuant to the preceding provision.

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(ii) If the Transaction is not also a Section 409A Change in Control, then the Acquiring Entity must either assume, continue or substitute the Non-Exempt Director Award. Unless otherwise determined by the Board, the Non-Exempt Director Award will remain subject to the same vesting and forfeiture restrictions that were applicable to the Award prior to the Transaction. The shares to be issued in respect of the Non-Exempt Director Award shall be issued to the Participant by the Acquiring Entity on the same schedule that the shares would have been issued to the Participant if the Transaction had not occurred. In the Acquiring Entity's discretion, in lieu of an issuance of shares, the Acquiring Entity may instead substitute a cash payment on each applicable issuance date, equal to the Fair Market Value of the shares that would otherwise be issued to the Participant on such issuance dates, with the determination of Fair Market Value made on the date of the Transaction.

(e) If the RSU Award is a Non-Exempt Award, then the provisions in this Section 11(e) shall apply and supersede anything to the contrary that may be set forth in the Plan or the Award Agreement with respect to the permitted treatment of such Non-Exempt Award:

(i) Any exercise by the Board of discretion to accelerate the vesting of a Non-Exempt Award shall not result in any acceleration of the scheduled issuance dates for the shares in respect of the Non-Exempt Award unless earlier issuance of the shares upon the applicable vesting dates would be in compliance with the requirements of Section 409A.

(ii) The Company explicitly reserves the right to earlier settle any Non-Exempt Award to the extent permitted and in compliance with the requirements of Section 409A, including pursuant to any of the exemptions available in Treasury Regulations Section 1.409A-3(j)(4)(ix).

(iii) To the extent the terms of any Non-Exempt Award provide that it will be settled upon a Transaction, to the extent it is required for compliance with the requirements of Section 409A, the Transaction event triggering settlement must also constitute a Section 409A Change in Control. To the extent the terms of a Non-Exempt Award provides that it will be settled upon a termination of employment or termination of Continuous Service, to the extent it is required for compliance with the requirements of Section 409A, the termination event triggering settlement must also constitute a Separation From Service. However, if at the time the shares would otherwise be issued to a Participant in connection with a "separation from service" such Participant is subject to the distribution limitations contained in Section 409A applicable to "specified employees," as defined in Section 409A(a)(2)(B)(i) of the Code, such shares shall not be issued before the date that is six months following the date of the Participant's Separation From Service, or, if earlier, the date of the Participant's death that occurs within such six month period.

(iv) The provisions in this subsection (e) for delivery of the shares in respect of the settlement of a RSU Award that is a Non-Exempt Award are intended to comply with the requirements of Section 409A so that the delivery of the shares to the Participant in respect of such Non-Exempt Award will not trigger the additional tax imposed under Section 409A, and any ambiguities herein will be so interpreted.

12. SEVERABILITY.

If all or any part of the Plan or any Award Agreement is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity shall not invalidate any portion of the Plan or such Award Agreement not declared to be unlawful or invalid. Any Section of the Plan or any Award Agreement (or part of such a Section) so declared to be unlawful or invalid shall, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

13. TERMINATION OF THE PLAN.

The Board may suspend or terminate the Plan at any time. No Incentive Stock Options may be granted after the tenth anniversary of the earlier of: (i) the Adoption Date, or (ii) the Effective Date. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

14. DEFINITIONS.

As used in the Plan, the following definitions apply to the capitalized terms indicated below:

(a) “**Acquiring Entity**” means the surviving or acquiring corporation (or its parent company) in connection with a Transaction.

(b) “**Adoption Date**” means the date the Plan is first approved by the Board or Compensation Committee.

(c) “**Affiliate**” means, at the time of determination, any “parent” or “subsidiary” of the Company as such terms are defined in Rule 405 promulgated under the Securities Act. The Board may determine the time or times at which “parent” or “subsidiary” status is determined within the foregoing definition.

(d) “**Applicable Law**” means any applicable securities, federal, state, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, listing rule, regulation, judicial decision, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body (including under the authority of any applicable self-regulating organization such as the Nasdaq Stock Market, New York Stock Exchange, or the Financial Industry Regulatory Authority).

(e) “**Appreciation Award**” means (i) a stock option or stock appreciation right granted under the Prior Plan or (ii) an Option or SAR granted under the Plan, in each case with respect to which the exercise or strike price is at least 100% of the Fair Market Value of the Common Stock subject to the stock option or stock appreciation right, or Option or SAR, as applicable, on the date of grant.

(f) “**Award**” means any right to receive Common Stock, cash or other property granted under the Plan (including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a RSU Award, a SAR or a Performance Award).

(g) “**Award Agreement**” means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award. The Award Agreement generally consists of the Grant Notice and the agreement containing the written summary of the general terms and conditions applicable to the Award and which is provided to a Participant along with the Grant Notice.

(h) “**Board**” means the Board of Directors of the Company (or its designee). Any decision or determination made by the Board shall be a decision or determination that is made in the sole discretion of the Board (or its designee), and such decision or determination shall be final and binding on all Participants.

(i) “**Capitalization Adjustment**” means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Award after the Adoption Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(j) “**Cause**” will have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) the willful misconduct, failure, disregard or refusal by such Participant to perform any of the material duties of his or her material duties of employment; *provided, however,* that such Participant will have one opportunity to cure any breach within five (5) business days

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(“**Cure Period**”) of written notice to the Participant; (ii) any willful, intentional or grossly negligent act by such Participant having the effect of injuring, in a material way the business or reputation of the Company or an Affiliate; (iii) such Participant’s conviction of any felony or a misdemeanor involving moral turpitude (including entry of a *nolo contendere* plea); (iv) the determination by the Company, after a reasonable and good-faith investigation by the Company following a written allegation by another employee of the Company, that such Participant engaged in some form of harassment prohibited by law (including, without limitation, harassment that constitutes age, sex or race discrimination); (v) any misappropriation or embezzlement of the property of the Company or an Affiliate; or (vi) breach by such Participant of any agreement between the Participant and the Company or an Affiliate which is not cured by the Participant within thirty (30) days after notice thereof is given by the Company or an Affiliate. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(k) “**Change in Control**” or “**Change of Control**” means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events; provided, however, to the extent necessary to avoid adverse personal income tax consequences to the Participant in connection with an Award, also constitutes a Section 409A Change in Control:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company’s then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company’s securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (C) solely because the level of Ownership held by any Exchange Act Person (the “**Subject Person**”) exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(iv) individuals who, on the date the Plan is adopted by the Board, are members of the Board (the “**Incumbent Board**”) cease for any reason to constitute at least a majority of the members of the Board;

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provided, however, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member shall, for purposes of this Plan, be considered as a member of the Incumbent Board.

(l) Notwithstanding the foregoing or any other provision of this Plan, (A) the term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant shall supersede the foregoing definition with respect to Awards subject to such agreement; provided, however, that (1) if no definition of Change in Control (or any analogous term) is set forth in such an individual written agreement, the foregoing definition shall apply and (2) no Change in Control (or any analogous term) will be deemed to occur with respect to Awards subject to such an individual written agreement without a requirement that the Change in Control (or any analogous term) actually occur. “Code” means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(m) “Committee” means the Compensation Committee and any other committee of Directors to whom authority has been delegated by the Board or Compensation Committee in accordance with the Plan.

(n) “Common Stock” means the common stock of the Company.

(o) “Company” means ZIOPHARM Oncology, Inc., a Delaware corporation.

(p) “Compensation Committee” means the Compensation Committee of the Board.

(q) “Consultant” means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a “Consultant” for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company’s securities to such person.

(r) “Continuous Service” means that the Participant’s service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Director or Consultant or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant’s service with the Company or an Affiliate, will not terminate a Participant’s Continuous Service; provided, however, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, such Participant’s Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. For example, a change in status from an Employee of the Company to a Consultant of an Affiliate or to a Director will not constitute an interruption of Continuous Service. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party’s sole discretion, may determine whether Continuous Service will be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence will be treated as Continuous Service for purposes of vesting in an Award only to such extent as may be provided in the Company’s leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law. In addition, to the extent required for exemption from or compliance with Section 409A, the determination of whether there has been a termination of Continuous Service will be made, and such term will be construed, in a manner that is consistent with the definition of “separation from service” as defined under Treasury Regulation Section 1.409A-1(h) (without regard to any alternative definition thereunder).

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(s) “**Corporate Transaction**” means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least 50% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(t) “**determine**” or “**determined**” means as determined by the Board or the Committee (or its designee) in its sole discretion.

(u) “**Director**” means a member of the Board.

(v) “**Disability**” means, with respect to a Participant, such Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months, as provided in Section 22(e)(3) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(w) “**Effective Date**” means the date of the annual meeting of stockholders of the Company held in 2020 provided this Plan is approved by the Company’s stockholders at such meeting.

(x) “**Employee**” means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an “Employee” for purposes of the Plan.

(y) “**Employer**” means the Company or the Affiliate of the Company that employs the Participant.

(z) “**Entity**” means a corporation, partnership, limited liability company or other entity.

(aa) “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(bb) “**Exchange Act Person**” means any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that “Exchange Act Person” will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company’s then outstanding securities.

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(cc) “**Fair Market Value**” means, as of any date, unless otherwise determined by the Board, the value of the Common Stock (as determined on a per share or aggregate basis, as applicable) determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value will be the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) If there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, or if otherwise determined by the Board, the Fair Market Value will be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(dd) “**Full Value Award**” means an Award granted under the Plan or an award granted under the Prior Plan in each case that is not an Appreciation Award.

(ee) “**Governmental Body**” means any: (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or regulatory body, or quasi-governmental body of any nature (including any governmental division, department, administrative agency or bureau, commission, authority, instrumentality, official, ministry, fund, foundation, center, organization, unit, body or Entity and any court or other tribunal, and for the avoidance of doubt, any Tax authority) or other body exercising similar powers or authority; or (d) self-regulatory organization (including the Nasdaq Stock Market, New York Stock Exchange, and the Financial Industry Regulatory Authority).

(ff) “**Grant Notice**” means the notice provided to a Participant that he or she has been granted an Award under the Plan and which includes the name of the Participant, the type of Award, the date of grant of the Award, number of shares of Common Stock subject to the Award or potential cash payment right, (if any), the vesting schedule for the Award (if any) and other key terms applicable to the Award.

(gg) “**Incentive Stock Option**” means an option granted pursuant to Section 4 of the Plan that is intended to be, and qualifies as, an “incentive stock option” within the meaning of Section 422 of the Code.

(hh) “**Materially Impair**” means that a Participant’s rights under an Award will be materially adversely affected by a suspension or termination of the Plan, an amendment of the Plan, or an amendment to the terms of the Award, as applicable. For purposes of the Plan, a Participant’s rights under an Award will not be deemed to have been Materially Impaired by any of the foregoing actions if the Board, in its sole discretion, determines that such action, taken as a whole, does not materially impair the Participant’s rights under the Award. For example, an amendment to the terms of an Award in order to do any of the following, or that results in any of the following, will not be deemed to Materially Impair the Participant’s rights under the Award: (i) an imposition of reasonable restrictions on the minimum number of shares subject to an Option that may be exercised; (ii) to maintain the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (iii) a change in the terms of an Incentive Stock Option in a manner that disqualifies, impairs or otherwise affects the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (iv) to clarify the manner of exemption from, or to bring the Award into compliance with or qualify it for an exemption from, Section 409A; or (v) to comply with other Applicable Laws.

(ii) “**Non-Employee Director**” means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as

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to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act (“**Regulation S-K**”), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a “non-employee director” for purposes of Rule 16b-3.

(jj) “**Non-Exempt Award**” means any Award that is subject to, and not exempt from, Section 409A, including as the result of (i) a deferral of the issuance of the shares subject to the Award which is elected by the Participant or imposed by the Company, or (ii) the terms of any Non-Exempt Severance Agreement.

(kk) “**Non-Exempt Director Award**” means a Non-Exempt Award granted to a Participant who was a Director but not an Employee on the applicable grant date.

(ll) “**Non-Exempt Severance Arrangement**” means a severance arrangement or other agreement between the Participant and the Company that provides for acceleration of vesting of an Award and issuance of the shares in respect of such Award upon the Participant’s termination of employment or separation from service (as such term is defined in Section 409A(a)(2)(A)(i) of the Code (and without regard to any alternative definition thereunder) (“**Separation from Service**”) and such severance benefit does not satisfy the requirements for an exemption from application of Section 409A provided under Treasury Regulations Section 1.409A-1(b)(4), 1.409A-1(b)(9) or otherwise.

(mm) “**Nonstatutory Stock Option**” means any option granted pursuant to Section 4 of the Plan that does not qualify as an Incentive Stock Option.

(nn) “**Officer**” means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(oo) “**Option**” means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(pp) “**Option Agreement**” means a written agreement between the Company and the Optionholder evidencing the terms and conditions of the Option grant. The Option Agreement includes the Grant Notice for the Option and the agreement containing the written summary of the general terms and conditions applicable to the Option and which is provided to a Participant along with the Grant Notice. Each Option Agreement will be subject to the terms and conditions of the Plan.

(qq) “**Optionholder**” means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(rr) “**Own,**” “**Owned,**” “**Owner,**” “**Ownership**” means that a person or Entity will be deemed to “Own,” to have “Owned,” to be the “Owner” of, or to have acquired “Ownership” of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(ss) “**Participant**” means an Employee, Director or Consultant to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Award.

(tt) “**Performance Award**” means an Award that may vest or may be exercised or a cash award that may vest or become earned and paid contingent upon the attainment during a Performance Period of certain Performance Goals and which is granted under the terms and conditions of Section 5(b) pursuant to such terms as are approved by the Board. In addition, to the extent permitted by Applicable Law and set forth in the applicable Award Agreement, the Board may determine that cash or other property may be used in payment of Performance Awards. Performance Awards that are settled in cash or other property are not required to be valued in whole or in part by reference to, or otherwise based on, the Common Stock.

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(uu) “Performance Criteria” means the one or more criteria that the Board will select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that will be used to establish such Performance Goals may be based on any measure of performance selected by the Board.

(vv) “Performance Goals” means, for a Performance Period, the one or more goals established by the Board for the Performance Period based upon the Performance Criteria. Performance Goals may be based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Board (i) in the Award Agreement at the time the Award is granted or (ii) in such other document setting forth the Performance Goals at the time the Performance Goals are established, the Board will appropriately make adjustments in the method of calculating the attainment of Performance Goals for a Performance Period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of items that are “unusual” in nature or occur “infrequently” as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company’s bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; and (12) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the U.S. Food and Drug Administration or any other regulatory body. In addition, the Board retains the discretion to reduce, increase or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for such Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Award Agreement or the written terms of a Performance Award.

(ww) “Performance Period” means the period of time selected by the Board over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant’s right to vesting or exercise of an Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

(xx) “Plan” means this ZIOPHARM Oncology, Inc. 2020 Equity Incentive Plan.

(yy) “Plan Administrator” means the person, persons, and/or third-party administrator designated by the Company to administer the day to day operations of the Plan and the Company’s other equity incentive programs.

(zz) “Post-Termination Exercise Period” means the period following termination of a Participant’s Continuous Service within which an Option or SAR is exercisable, as specified in Section 4(h).

(aaa) “Prior Plan’s Available Reserve” means the number of shares available for the grant of new awards under the Prior Plan.

(bbb) “Prior Plan” means the ZIOPHARM Oncology, Inc. 2012 Equity Incentive Plan.

(ccc) “Prospectus” means the document containing the Plan information specified in Section 10(a) of the Securities Act.

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(ddd) “*Restricted Stock Award*” or “*RSA*” means an Award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 5(a).

(eee) “*Restricted Stock Award Agreement*” means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. The Restricted Stock Award Agreement includes the Grant Notice for the Restricted Stock Award and the agreement containing the written summary of the general terms and conditions applicable to the Restricted Stock Award and which is provided to a Participant along with the Grant Notice. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

(fff) “*Returning Shares*” means shares subject to outstanding stock awards granted under the Prior Plan and that after March 31, 2020: (A) are not issued because such stock award or any portion thereof expires or otherwise terminates without all of the shares covered by such stock award having been issued; (B) are not issued because such stock award or any portion thereof is settled in cash; (C) are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required for the vesting of such shares; (D) are withheld or reacquired to satisfy the exercise, strike or purchase price of a Full Value Award; or (E) are withheld or reacquired to satisfy a tax withholding obligation in connection with a Full Value Award.

(ggg) “*RSU Award*” or “*RSU*” means an Award of restricted stock units representing the right to receive an issuance of shares of Common Stock which is granted pursuant to the terms and conditions of Section 5(a).

(hhh) “*RSU Award Agreement*” means a written agreement between the Company and a holder of a RSU Award evidencing the terms and conditions of a RSU Award grant. The RSU Award Agreement includes the Grant Notice for the RSU Award and the agreement containing the written summary of the general terms and conditions applicable to the RSU Award and which is provided to a Participant along with the Grant Notice. Each RSU Award Agreement will be subject to the terms and conditions of the Plan.

(iii) “*Rule 16b-3*” means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(jjj) “*Rule 405*” means Rule 405 promulgated under the Securities Act.

(kkk) “*Section 409A*” means Section 409A of the Code and the regulations and other guidance thereunder.

(lll) “*Section 409A Change in Control*” means a change in the ownership or effective control of the Company, or in the ownership of a substantial portion of the Company’s assets, as provided in Section 409A(a)(2)(A)(v) of the Code and Treasury Regulations Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

(mmm) “*Securities Act*” means the Securities Act of 1933, as amended.

(nnn) “*Share Reserve*” means the number of shares available for issuance under the Plan as set forth in Section 2(a).

(ooo) “*Stock Appreciation Right*” or “*SAR*” means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 4.

(ppp) “*SAR Agreement*” means a written agreement between the Company and a holder of a SAR evidencing the terms and conditions of a SAR grant. The SAR Agreement includes the Grant Notice for the SAR and the agreement containing the written summary of the general terms and conditions applicable to the SAR and which is provided to a Participant along with the Grant Notice. Each SAR Agreement will be subject to the terms and conditions of the Plan.

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(qqq) “*Subsidiary*” means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(rrr) “*Ten Percent Stockholder*” means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Affiliate.

(sss) “*Trading Policy*” means the Company’s policy permitting certain individuals to sell Company shares only during certain “window” periods and/or otherwise restricts the ability of certain individuals to transfer or encumber Company shares, as in effect from time to time.

(ttt) “*Transaction*” means a Corporate Transaction or Change in Control.

(uuu) “*Unvested Non-Exempt Award*” means the portion of any Non-Exempt Award that had not vested in accordance with its terms upon or prior to the date of any Transaction.

(vvv) “*Vested Non-Exempt Award*” means the portion of any Non-Exempt Award that had vested in accordance with its terms upon or prior to the date of a Transaction.

AMENDMENT TO THE ZIOPHARM ONCOLOGY, INC.
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

CERTIFICATE OF AMENDMENT OF THE RESTATED
CERTIFICATE OF INCORPORATION OF ZIOPHARM ONCOLOGY, INC.

(Pursuant to Section 242 of the
General Corporation Law of the State of Delaware)

Ziopharm Oncology, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "General Corporation Law"),

DOES HEREBY CERTIFY:

1. A resolution was duly adopted by the Board of Directors of the Corporation pursuant to Section 242 of the General Corporation Law proposing this Amendment of the Corporation's Restated Certificate of Incorporation and declaring the advisability of this Amendment of the Restated Certificate of Incorporation, and authorizing the appropriate officers of the Corporation to solicit the consent of the shareholders therefor, which resolution setting forth the proposed amendment is as follows:

RESOLVED, that the first paragraph of section four of the Restated Certificate of Incorporation of the Corporation, as amended, be and it hereby is, deleted in its entirety and the following paragraph is inserted in lieu thereof:

"4. *Number of Shares.* The total number of shares of all classes of stock that the Corporation shall have authority to issue is Four Hundred Seventy Five Million (475,000,000) shares consisting of: Four Hundred Forty Five Million (445,000,000) shares of common stock, \$.001 par value per share ("Common Stock"); and Thirty Million (30,000,000) shares of preferred stock, \$.001 par value per share ("Preferred Stock").

2. This Certificate of Amendment of the Restated Certificate of Incorporation has been duly adopted by the shareholders of the Corporation in accordance with the provisions of Section 242 of the General Corporation Law.

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IN WITNESS WHEREOF, this Corporation has caused this Certificate of Amendment of the Restated Certificate of Incorporation to be signed by its Chief Executive Officer this day of , 2020.

ZIOPHARM ONCOLOGY, INC.

By: _____
Laurence J.N. Cooper
Chief Executive Officer

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

VOTE BY INTERNET

Before The Meeting - Go to www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information. Vote by 11:59 P.M. ET on June 28, 2020. Have your proxy card or Notice of Internet Availability of Proxy Materials in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/ZIOP2020

You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow on your proxy card or Notice of Internet Availability of Proxy Materials available and follow the instructions.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions. Vote by 11:59 P.M. ET on June 28, 2020. Have your proxy card or Notice of Internet Availability of Proxy Materials 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:

D17610-P40923

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

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

ZIOPHARM ONCOLOGY, INC.		For All	Withhold All	For All Except	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.
The Board of Directors recommends you vote FOR the following:					
1. Election of Directors		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nominees:					
01) Christopher Bowden	05) Heidi Hagen				
02) Scott Braunstein	06) Douglas W. Pagan				
03) Laurence J. N. Cooper	07) Scott Tarriff				
04) Elan Z. Ezickson					
The Board of Directors recommends you vote FOR proposals 2, 3, 4 and 5.					
2. To ratify the selection by the audit committee of the board of directors of RSM US LLP as the Company's independent registered public accounting firm of the Company for its fiscal year ending December 31, 2020.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. To approve, on an advisory basis, the compensation of the Company's named executive officers as disclosed in the proxy statement.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. To approve the Company's 2020 Equity Incentive Plan.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. To approve an amendment to the Company's amended and restated certificate of incorporation to increase the authorized number of shares of common stock from 250,000,000 shares to 445,000,000 shares.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: To transact any other business as may properly come before the meeting or any adjournments or postponements thereof.					
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.					
<div style="border: 1px solid black; height: 20px; width: 100%;"></div>	<div style="border: 1px solid black; height: 20px; width: 100%;"></div>	<div style="border: 1px solid black; height: 20px; width: 100%;"></div>		<div style="border: 1px solid black; height: 20px; width: 100%;"></div>	
Signature [PLEASE SIGN WITHIN BOX]	Date	Signature (Joint Owners)		Date	

Our Annual Meeting will be broadcast live on the Internet. To listen to the broadcast, log on to:
www.virtualshareholdermeeting.com/ZIOP2020.

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

D17611-P40923

**ZIOPHARM ONCOLOGY, INC.
Annual Meeting of Stockholders
June 29, 2020 9:00 AM ET
This proxy is solicited by the Board of Directors**

The undersigned hereby appoints Laurence James Neil Cooper, M.D., Ph.D. and Robert Hadfield 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 9:00 AM ET on June 29, 2020, virtually via live audio-only webcast at www.virtualshareholdermeeting.com/ZIOP2020, 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.

Continued and to be signed on reverse side