

CTI BIOPHARMA CORP
Form PRE 14A
March 14, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 14A

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-11(c) or §240.14a-12

CTI BioPharma Corp.
(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.

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

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(1) Amount Previously Paid:

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(3) Filing Party:

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CTI BIOPHARMA CORP.

Notice of Annual Meeting of Shareholders May 16, 2017

NOTICE OF 2017 ANNUAL MEETING OF SHAREHOLDERS

Location:

Company's Principal Executive Offices 3101 Western Avenue, Suite 600 Seattle,
Washington 98121, U.S.A.

Date: May 16, 2017

Time: 10:00 a.m. Pacific
Time

The Notice of Meeting, Proxy Statement and Annual Report on Form 10-K are available free of charge at
<http://www.ctibiopharma.com>.

Items of Business:

- (1) To elect directors to the Company's Board of Directors to serve one-year terms;
To approve an amendment to the Company's amended and restated articles of incorporation to increase the total
- (2) number of authorized shares from 41,533,333 to 81,533,333 and to increase the total number of authorized shares of common stock from 41,500,000 to 81,500,000;
- (3) To approve the Company's 2017 Equity Incentive Plan;
- (4) To ratify the selection of Marcum LLP as the Company's independent auditor for the year ending December 31, 2017;
- (5) To approve, by non-binding advisory vote, the compensation of the Company's named executive officers;
- (6) To provide an advisory vote to determine whether an advisory vote on executive compensation should occur every one, two or three years;
- (7) To approve the adjournment of the Annual Meeting, if necessary or appropriate, to solicit additional proxies if there are insufficient votes at the time of the Annual Meeting to adopt any of Proposals 1 through 6; and
- (8) To transact such other business as may properly come before the Annual Meeting and all adjournments and postponements thereof.

Record Date: Close of business on March 15, 2017.

YOUR VOTE IS VERY IMPORTANT. Whether or not you plan to attend the 2017 Annual Meeting of Shareholders, we urge you to please cast your vote as soon as possible using one of the methods described in the accompanying Proxy Statement.

By Order of the Board of Directors

Bruce J. Seeley

Executive Vice President, Chief Commercial and Administrative Officer

Seattle, Washington March 14, 2017

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CTI BIOPHARMA CORP.
3101 Western Avenue, Suite 600
Seattle, Washington 98121, U.S.A.

PROXY STATEMENT

PROXY SUMMARY

This summary highlights information described in more detail elsewhere in this Proxy Statement. It does not contain all of the information that you should consider, and you should read the entire Proxy Statement carefully before voting. Page references are provided to help you find further information.

The Annual Meeting of Shareholders (the “Annual Meeting”) of CTI BioPharma Corp. (the “Company”, “our”, “us”, or “we”) will be held at the following time and location:

Date and Time:

May 16, 2017
10:00 a.m. Pacific Time

Location:

Company’s Principal Executive Offices,
3101 Western Avenue, Suite 600
Seattle, Washington 98121, U.S.A.

Delivery of Proxy Materials (see page 9)

On or about March [], 2017, proxy materials for the Annual Meeting, including this Proxy Statement, are being made available to shareholders entitled to vote at the Annual Meeting. We are utilizing the United States (the “U.S.”) Securities and Exchange Commission (the “SEC”) rules that allow issuers to furnish proxy materials to their shareholders on the Internet.

Eligibility to Vote (see page 10)

You may vote if you were a shareholder of record at the close of business on March 15, 2017.

How to Cast Your Vote (see page 11)

For non-Italian Shareholders

Log on to www.proxyvote.com and follow the instructions, using the Control Number shown on the Notice of Internet Availability of Proxy Materials (or paper proxy or voting instruction card if you receive one), until 11:59 p.m. Eastern Time on May 15, 2017;

If you receive a proxy card, call the telephone number and follow the instructions shown on the proxy or voting instruction card, using the Control Number shown on the card, until 11:59 p.m. Eastern Time on May 15, 2017;

If you receive a proxy or voting instruction card, mark, sign and date the card and promptly return it in the prepaid envelope so that it is received prior to the adjournment of the Annual Meeting on May 16, 2017; or

In person, if you are a shareholder of record, by voting your shares at the Annual Meeting. If your shares are held in the name of a broker, nominee or other intermediary, you must obtain a proxy, executed in your favor, to bring to the meeting.

For Italian Shareholders

If you are an Italian shareholder (as such term is defined below), please refer to the section entitled “General Information Concerning the Annual Meeting - Important Information for our Shareholders in Italy” for information pertaining to applicable voting procedures starting on page 11.

Summary of Voting Matters

	Board Vote Recommendation	Page Reference
1. Approval of proposal to elect directors to the Board of Directors (the “Board”) to serve one-year terms.	FOR	<u>12</u>
2. Approval of an amendment to the Company’s amended and restated articles of incorporation (the “Articles”).	FOR	<u>21</u>
3. To approve the Company’s 2017 Equity Incentive Plan.	FOR	<u>25</u>
4. Ratification of selection of Marcum LLP as our independent auditor for the year ending December 31, 2017.	FOR	<u>33</u>
5. Approval, by non-binding advisory vote, of the compensation of the Company’s named executive officers.	FOR	<u>37</u>
6. Approval of frequency of the non-binding vote on the compensation of the Company’s named executive officers.	ONE YEAR	<u>39</u>
7. Approval of adjournment of the Annual Meeting, if necessary or appropriate.	FOR	<u>40</u>

Your Vote Matters! (see page 11)

It is very important that you cast your vote and play a part in the future of the Company. Under rules of the New York Stock Exchange (the “NYSE”), if you hold your shares through a broker, bank or other nominee, they cannot vote on your behalf on the foregoing proposals 1, 3, 5 or 6 at the Annual Meeting because they are considered non-routine matters. Thus, it is important that you cast your vote on these and all proposals to make sure your voice is heard.

Director Nominees (see page 15)

Nominee	Director Since
Adam R. Craig, M.D., Ph.D.	2017
Richard L. Love	2007
Michael A. Metzger	2017
Phillip M. Nudelman, Ph. D.	1994
Matthew D. Perry	2016
Jack W. Singer, M.D.	1991
Frederick W. Telling, Ph.D.	2006
Reed V. Tuckson, M.D., F.A.C.P.	2011

Governance Highlights

Six of our eight director nominees are independent or will be independent effective March 2017, and our independent directors meet regularly in executive sessions.

Board policy stipulates that the positions of Chief Executive Officer and Chairman of the Board are to be held by separate individuals.

Performance evaluations of the Board and its committees are performed annually.

The Board and its committees, as applicable, are responsible for risk oversight.

Senior executives, financial officers and directors are subject to codes of ethics.

The Board is diverse as to ethnicity, experience and skills.

Fiscal Year 2016 Business Highlights

Select key recent 2017 and fiscal year 2016 highlights include:

Research and Development

In January 2017, we received a €7.5 million milestone payment from our partner, Servier, following the achievement of a milestone associated with patient enrollment in the Phase 3 PIX306 clinical trial of PIXUVRI.

In January 2017, the U.S. Food and Drug Administration ("FDA") removed the full clinical hold following review of our complete response submission which included, among other items, final Clinical Study Reports for both PERSIST-1 and 2 trials and a dose-exploration clinical trial protocol that the FDA requested. At that time, we announced that we intend to conduct a new trial, PAC203, that plans to enroll up to approximately 105 patients with primary myelofibrosis who have failed prior ruxolitinib therapy to evaluate the dose response relationship for safety and efficacy (spleen volume reduction at 12 and 24 weeks) of three dose regimens: 100 mg once-daily, 100 mg twice-daily (BID) and 200 mg BID. The 200 mg BID dose regimen was used in PERSIST-2.

In December 2016, we announced the presentation of data from PERSIST-2, a randomized Phase 3 clinical trial comparing pacritinib with physician-specified (BAT), for the treatment of high risk, thrombocytopenic myelofibrosis patients (platelet counts less than 100,000 per microliter) in a late-breaking oral session at the American Society of Hematology (ASH) Annual Meeting. Data presented at ASH show that in myelofibrosis patients a statistically significant response rate in spleen volume reduction (SVR) with pacritinib therapy was observed compared to BAT that included use of the approved JAK1/JAK2 inhibitor ruxolitinib (p=0.001). The co-primary endpoint of reduction of Total Symptom Score (TSS) was not achieved (p=0.079) but trended toward improvement in TSS. Irrespective of prior ruxolitinib treatment, pacritinib therapy resulted in a statistically significant higher proportion of patients with SVR than patients on BAT.

In June 2016, we announced the presentation of long-term safety and efficacy results from PERSIST-1, a randomized Phase 3 trial comparing the efficacy and safety of pacritinib with that of best available therapy other than JAK inhibitors without exclusion for low platelet counts. A planned analysis of the study up to 72 weeks demonstrated treatment with

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pacritinib led to durable reductions in spleen volume and symptom burden in patients with myelofibrosis.

Corporate

In March 2017, we announced that Louis A. Bianco resigned as our Executive Vice President, Finance and Administration. Bruce J. Seeley, the Company's former Executive Vice President, Chief Commercial Officer, was appointed to serve as the principal financial officer of the Company, effective immediately, and has assumed the title of Executive Vice President, Chief Commercial and Administrative Officer and Secretary.

In February 2017, we announced the appointment of Adam R. Craig, M.D., Ph.D., as President and Chief Executive Officer (CEO) and member of the Board of Directors effective March 20, 2017. Dr. Craig has over 20 years of experience in hematology, oncology and drug development in both the U.S. and Europe. Dr. Craig worked as an independent consultant providing strategic and operational advice and support to CTI BioPharma and other hematology/oncology biotechnology companies. Prior to consulting, Dr. Craig was Chief Medical Officer (CMO) and Executive Vice President of Development at Sunesis Pharmaceuticals and CMO and Senior Vice President of Chemgenex Pharmaceuticals Ltd. Dr. Craig is a Member of the Royal College of Physicians (UK) and undertook Post-Graduate Training in Pediatrics and Pediatric Oncology. Dr. Craig earned his Bachelor's and Medical degrees from Charing Cross and Westminster Medical School, University of London and holds a Ph.D. in Molecular Oncology from Leeds University in the U.K. and an MBA from the Open Business School, in the United Kingdom. Dr. Craig recently served as a Product Development Reviewer for the Cancer Prevention Research Institute of Texas.

In January 2017, we announced that Michael Metzger had been appointed to the Board of Directors. Mr. Metzger has extensive experience leading and growing companies in the biopharmaceutical industry over the last 20 years. Mr. Metzger is currently president and chief operating officer of Syndax Pharmaceuticals, Inc., a publicly traded immuno-oncology biopharmaceutical company. He has served in executive and senior management positions at Regado Biosciences, Mersana Therapeutics, Forest Laboratories and Onconova Therapeutics.

In January 2017, we announced that we completed a reverse stock split. Upon the effective date, each of our shareholders received one (1) new share of our common stock for every ten (10) shares that such shareholders previously held.

In October 2016, we announced that James A. Bianco, M.D. retired from his position as president and chief executive officer. At the request of the Board of Directors, Richard Love, a director of the Company since 2007, was appointed to serve as interim president and chief executive officer. Mr. Love started two biotechnology companies, Triton Biosciences Inc. and ILEX Oncology Inc., and he served as Chief Executive Officer for Triton Biosciences Inc. from 1983 to 1991 and as Chief Executive Officer for ILEX Oncology from 1994 to 2001. Mr. Love also served in executive positions at not-for-profit organizations including the Cancer Therapy and Research Center (CTRC) and the Translational Genomics Research Institute (TGen).

In January 2016, we announced that Matthew Perry had been appointed to the Board of Directors. Mr. Perry is the President of BVF Partners L.P., or BVF, and the co-portfolio manager for the underlying funds managed by the firm. BVF is a private investment partnership that manages over \$1 billion and focuses on small-cap, value oriented investment opportunities.

Executive Compensation (see page 42)

Our executive compensation program embraces a number of features intended to reflect best practices in the market and help ensure that the program reinforces shareholder interests. Such features include the following:

• Vesting of a significant percentage of executives' equity awards outstanding in 2016 was contingent on the achievement of specific operational and financial performance goals established by the Compensation Committee of

the Board (the "Compensation Committee"). As discussed in "Compensation Discussion and Analysis" starting on page 42, these Long-Term Performance Awards were forfeited on December 31, 2016 to the extent the applicable performance conditions had not been satisfied.

In recent years, the Compensation Committee approved arrangements for each of the named executive officers that eliminated any gross-up payments for "parachute payment" taxes under Sections 280G and 4999 of the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code") for our named executive officers, and approved revisions to the severance agreements with certain of our named executive officers to eliminate "walkaway" right provisions that would have permitted them to voluntarily terminate employment for any reason following a change in control and receive severance benefits. For a discussion of benefits payable to the named executive officers in connection with a

termination of employment or a change in control of the Company, see “Potential Payments upon Termination or Change in Control.”

Our executive compensation program is designed to align the compensation of our named executive officers with shareholders’ interests. To create this alignment, a significant portion of such compensation is “at-risk.” In this Proxy Statement, we refer to compensation as being “at risk” if it is subject to performance-based vesting criteria and/or time-based vesting criteria (whereby the awards will generally be forfeited unless the executive remains at the Company for the designated period of time), and/or the value of the award is based on the price of our common stock. Under the program, the portion of compensation guaranteed and not at risk for any fiscal year represents only a fraction of the total potential compensation. For more information on our named executive officer compensation, see “Compensation Discussion and Analysis” starting on page 42.

GENERAL INFORMATION CONCERNING THE ANNUAL MEETING

Annual Meeting Agenda

This Proxy Statement and the accompanying form of proxy card are furnished in connection with the solicitation of proxies by the Board for use at our Annual Meeting.

At the Annual Meeting, shareholders will be asked to:

1. elect directors to the Company's Board to serve one-year terms ("Proposal 1");
2. approve an amendment to the Articles ("Proposal 2");
3. approve the Company's 2017 Equity Incentive Plan ("Proposal 3");
4. ratify the selection of Marcum LLP as the Company's independent auditor for the year ending December 31, 2017 ("Proposal 4");
5. approve, by non-binding advisory vote, the compensation of the Company's named executive officers ("Proposal 5");
6. provide an advisory vote to determine whether an advisory vote on executive compensation should occur every one, two or three years ("Proposal 6");
7. approve the adjournment of the Annual Meeting, if necessary or appropriate, to solicit additional proxies if there are insufficient votes at the time of the Annual Meeting to adopt any of Proposals 1 through 6 ("Proposal 7" and, collectively with Proposals 1 through 7, the "Proposals"); and
8. transact such other business as may properly come before the Annual Meeting and all adjournments and postponements thereof.

Shareholder approval of Proposals 1, 2 and 3 are required by statutes or regulations applicable to us based on our listing on The NASDAQ Stock Market LLC ("NASDAQ") and our incorporation in the State of Washington.

Note Regarding Share-Related Numbers in this Proxy Statement

On January 1, 2017, we effected a 1-for-10 reverse stock split of our common stock (the "Reverse Stock Split"). All share amounts, per share amounts and share prices reflected throughout this Proxy Statement have been adjusted to reflect the Reverse Stock Split, unless otherwise noted.

Delivery of Proxy Materials

On or about March [], 2017, proxy materials for the Annual Meeting, including this Proxy Statement, are being made available to shareholders entitled to vote at the Annual Meeting. We are utilizing the SEC rules that allow issuers to furnish proxy materials to their shareholders on the Internet. We believe these rules allow us to provide you with the information you need while lowering the costs of delivery and reducing the environmental impact of the Annual Meeting. Pursuant to such rules, we are mailing to many of our shareholders a Notice of Internet Availability of Proxy Materials (the "Notice") instead of a paper copy of this Proxy Statement and our Annual Report on Form 10-K for the year ended December 31, 2016 (the "2016 Annual Report"). The Notice contains instructions on how to access those documents and vote online. The Notice also contains instructions on how each of those shareholders can receive a paper copy of the proxy materials, including this Proxy Statement, the 2016 Annual Report and a form of proxy card or voting instruction card. Shareholders (other than Italian shareholders) who do not receive a Notice, such as shareholders who have previously requested to receive paper copies of proxy materials, will receive a paper copy of the proxy materials by mail. In the case of Italian shareholders, such shareholders will be able to obtain a copy of the proxy materials in the manner outlined under the heading "Important Information for our Shareholders in Italy - Availability of Meeting Materials."

Solicitation of Proxies

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This solicitation is made on behalf of the Board. All expenses in connection with the solicitation of proxies will be borne by us. In addition to solicitation by mail, our officers, directors or other regular employees may solicit proxies by telephone, facsimile, electronic communication or in person. These individuals will not receive any additional compensation for these services. We have engaged The Proxy Advisory Group, LLC to assist in the solicitation of proxies and provide related advice and informational support, for a service fee, plus customary disbursements, which are not expected to exceed \$30,000 in the aggregate.

Record Date, Eligibility to Vote, Voting Rights and Outstanding Shares

Only shareholders of record on our shareholder books at the close of business on March 15, 2017 (the “Record Date”) will be entitled to notice of, and to vote at, the Annual Meeting. Each holder of record of our common stock, no par value per share, outstanding on the Record Date will be entitled to one vote per share on all matters to be voted upon at the Annual Meeting. As of the close of business on the Record Date, there were [] shares of the Company’s common stock issued and outstanding and no shares of any other class of capital stock outstanding.

Dissenters Rights or Appraisal Rights

Pursuant to applicable Washington law, there are no dissenters or appraisal rights relating to the matters to be acted upon at the Annual Meeting.

Quorum, Abstentions, Required Vote and Broker Non-Votes

Overview

All votes will be tabulated by the inspector of election appointed for the Annual Meeting, who will separately tabulate affirmative and negative votes, abstentions, withheld votes and broker non-votes. Abstentions represent a shareholder’s affirmative choice to decline to vote on a proposal. Properly executed proxy cards that are marked “abstain” or “withhold all” on any proposal, as applicable, will be treated as abstentions for that proposal.

Broker non-votes occur when a broker holding shares for a beneficial owner does not vote on a particular matter because such broker does not have discretionary authority to vote on that matter and has not received voting instructions from the beneficial owner. Brokers typically do not have discretionary authority to vote on non-routine matters. Under the applicable rules of the NYSE (the “NYSE Rules”), brokers have discretionary authority to vote on routine matters when they have not received timely voting instructions from the beneficial owner. The routine versus non-routine matters to be voted upon at the Annual Meeting are discussed in greater detail below.

Quorum

A quorum of shareholders must be established at the Annual Meeting in order to transact business at the Annual Meeting. Under the Washington Business Corporation Act, a quorum may be established in one of two ways. Pursuant to the first quorum standard, the presence in person, by telephone or by proxy of the holders of at least one-third of the shares outstanding and entitled to vote at the Annual Meeting constitutes a quorum (“Quorum Standard 1”). Therefore, we will need at least [] shares of our common stock present in person, by telephone or by proxy at the Annual Meeting for a quorum pursuant to Quorum Standard 1 to be established. Alternatively, we may establish a quorum under a second quorum standard, which requires that a majority of the shares outstanding and entitled to vote at the Annual Meeting, other than shares held of record by Depository Trust Company (“DTC”), and credited to the account of stock depositories located in a member state of the European Union (the “E.U.”), must be present in person, by telephone or by proxy at the Annual Meeting, provided the number of votes comprising such majority equals or exceeds one-sixth of the shares outstanding and entitled to vote at the Annual Meeting (“Quorum Standard 2”). As of the close of business on the Record Date, there were [] shares of our common stock issued and outstanding other than

shares held of record by DTC and credited to the account of stock depositories located in a member state of the E.U. Accordingly, [] of the shares of our common stock, other than shares held of record by DTC and credited to the account of stock depositories located in a member state of the E.U., must be present in person, by telephone or by proxy at the Annual Meeting for Quorum Standard 2 to be established. All shares of our common stock are eligible to vote for the Proposals. Under Quorum Standard 2, certain shares are not counted for quorum purposes. However, even if a quorum is established under Quorum Standard 2, all shares are eligible to vote and all such votes will be counted.

While our Amended and Restated Bylaws (the “Bylaws”) provide that a quorum shall consist of shareholders representing, either in person or by proxy, one-third of the votes entitled to be cast on the matter by each voting group at the Annual Meeting, applicable Washington law expressly provides that Quorum Standard 2 shall also apply.

In the absence of a quorum, the Chairman of the Annual Meeting may adjourn the Annual Meeting.

Abstentions

Abstentions will be counted in determining whether a quorum is present, except that abstentions of shares credited to the account of stock depositories located in a member state of the E.U. (including shares that are held through Monte Titoli, S.p.A., the Italian central clearing agency (“Monte Titoli”)) will not be counted in determining whether a quorum is present for purposes of establishing Quorum Standard 2.

Vote Required and Effect of Abstentions and Broker Non-Votes on Vote

The nominees for director seats who receive the most votes cast in Proposal 1, either at the Annual Meeting in person, by telephone or by proxy shall be elected. Abstentions will have no effect on the outcome of Proposal 1. No cumulative voting for directors is permitted under our Articles.

The affirmative vote of a majority of votes actually cast that are present in person, by telephone or by proxy is required to approve Proposals 2, 3, 4, 5 and 7. Abstentions will not be counted as votes cast against Proposals 2, 3, 4, 5 and 7 and will have no effect on the outcome of Proposals 2, 3, 4, 5 and 7 because approval is based on the number of votes actually cast.

Proposals 1, 3, 5 and 6 are considered to be non-routine matters under the NYSE Rules, and, as a result, if you do not instruct your broker, bank or other nominee on how to vote the shares in your account for Proposals 1, 3, 5 and 6, brokers will not be permitted to exercise their voting authority and uninstructed shares will constitute broker non-votes. However, broker non-votes for Proposals 1, 3, 5 and 6 will have no effect on the outcome of such proposals because approval is based on the number of votes actually cast. Shareholders’ choices for Proposal 6 are limited to “one year,” “two years,” “three years” and abstain. Proposals 2, 4 and 7 are considered to be routine matters under the NYSE Rules and, accordingly, if you do not instruct your broker, bank or other nominee on how to vote the shares in your account for Proposals 2, 4 and 7, brokers will be permitted to exercise their discretionary authority to vote for such proposals. Abstentions and broker non-votes will have no effect on the outcome of Proposal 6.

Methods of Voting (other than for shareholders in Italy, which are discussed below)

Beneficial Shareholders

If you own shares through a broker, bank or other holder of record, you will need to instruct the holder of record how to vote your shares. In order to provide voting instructions to the holder of record of your shares, please refer to the materials forwarded by your broker, bank or other holder of record. You may not vote your shares in person at the Annual Meeting unless you obtain a “legal proxy” from the bank, broker or other holder of record that holds your shares, giving you the right to vote the shares at the Annual Meeting.

Registered Shareholders

If you own shares that are registered in your name, you may vote by proxy before the Annual Meeting by internet at www.proxyvote.com, by calling 1-800-690-6903 or by signing and returning your proxy card. To vote by internet or telephone, you will need your 16-digit voting control number, which can be found on your proxy card or Notice. If you return a signed proxy card but do not provide voting instructions for some or all of the matters to be voted on,

your shares will be voted on all uninstructed matters in accordance with the recommendations of the Board. You may also vote your shares in person at the Annual Meeting. If you choose to do so, you can vote using the ballot that will be provided at the Annual Meeting.

Important Information for our Shareholders in Italy

Voting Methods

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Our Italian shareholders whose shares are held directly by a U.S. brokerage account in that shareholder's name or who are registered directly with us as a record holder (i.e., you hold your shares in registered form) may vote via the internet or phone methods described above. Persons holding shares of our common stock through Monte Titoli (which shareholders are referred to in this Proxy Statement as our shareholders in Italy or our Italian shareholders) are not able to vote via the internet or phone methods described above and must instead vote in the manner described below.

If you hold shares of our common stock as a result of our 2004 merger with Novuspharma S.p.A. or if you acquired shares of our common stock through an account with an Italian bank on the Mercato Telematico Azionario stock market in Italy, you most likely hold these shares indirectly through the facilities of Monte Titoli, and through the banks and brokers participating in the Monte Titoli system (unless you or your broker has taken action to remove your shares from the Monte Titoli system and requested to have shares registered in your name). Monte Titoli, in turn, indirectly holds these shares of our common stock through the participants in the U.S. clearing agency, DTC. Pursuant to U.S. law, voting power over these shares will be transferred from DTC through DTC participants and European intermediaries to Monte Titoli. Monte Titoli has agreed with us that it will re-transfer its voting power over such shares to the persons holding certifications of participation (each, a "Certification") in the Italian Central Depository System issued pursuant to Italian law (Section 21 (and the following sections) of the Regulation enacted by the Bank of Italy and the Commissione Nazionale per le Società e la Borsa ("CONSOB") on February 22, 2008).

Italian shareholders who have requested and received a Certification may vote in the following manner:

In person. You may attend the Annual Meeting and vote in person. To do so, please present your Certification at the door, together with proof of your identity.

By mail or facsimile. An Italian proxy card accompanies this Proxy Statement. You may also print an Italian proxy card from our website at <http://www.ctibiopharma.com>. You may use such proxy card to vote by mail or facsimile. Please mark your votes on the Italian proxy card and return it and your Certification by mail to the address shown on the card or by facsimile to the facsimile number shown on the card by the deadline shown on the card. Your name as you write it on your Italian proxy card must exactly match your name as printed on your Certification. Italian privacy law prevents us from learning in advance the names of the persons holding Certifications. Thus, you must include your Certification (or a complete copy) in the same envelope as your Italian proxy card in order for your vote to be counted (that is, in order to prove to our inspector of election that you have the right to vote).

By proxy. You may name another person as a substitute proxy by any means permitted by Washington law and our Bylaws. That substitute proxy may then attend the Annual Meeting, provided that he or she provides your Certification or a complete copy thereof, together with your written authorization naming such person as your proxy, to our inspector of election at the Annual Meeting in order to verify the authenticity of your proxy designation.

For future meetings, an Italian shareholder may also vote via Internet or by phone if the shares owned by such Italian shareholder are either (i) registered directly with us in that shareholder's name as record holder or (ii) transferred to and held by a U.S. brokerage account in that shareholder's name. If you are an Italian shareholder and wish to use this method of voting for future meetings, then, prior to the record date for such future meeting, you will need to do one of the following:

Register as a Direct Record Holder: Contact your bank for more information on the procedures required for direct registration of your shares in your name, which would include, among other things, the submission of a registration request (together with a Certification) to our transfer agent, the removal of your shares from Monte Titoli's account and the transfer of such shares to the U.S. directly in your name. Please note that registration in our shareholder books may require you to take additional steps if and when you decide to dispose of your shares.

Transfer Shares to a U.S. Brokerage Account: Contact your bank and inform the bank that you would like to transfer your shares to a U.S. brokerage account (to be held in your name and for your account). Your bank can explain the procedure and costs associated with that transfer. Please note that you will be required by your bank to bear the costs relating to such a transfer, including those debited or claimed by the U.S. broker-dealer for the management of the

account in the U.S.

Once your shares are registered on our records in your name or held by a U.S. broker-dealer in your name, you will receive the Annual Meeting documentation for any future meetings (including the Proxy Statement) at your address, together with a security code and instructions on how to vote your shares through the relevant website or by calling the telephone number provided in connection with that meeting.

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Availability of Meeting Materials

Copies of this Proxy Statement may be obtained by our Italian shareholders from any of the following places:

- the office of the Company's Italian legal counsel, Legance Studio Legale Associato (contact person: Mr. Giorgio Vanzanelli), at Via Dante 7, 20123 Milan;
- the office of any of the depository banks having our shares in their accounts, subject to their availability to provide a copy of the Proxy Statement and/or the proxy card;
- the SEC website at <http://www.sec.gov>; or
- our website at <http://www.ctibiopharma.com>.

This Proxy Statement will be available for our Italian shareholders at least twenty days before the Annual Meeting date of May 16, 2017. If you hold shares of our common stock in Italy through Monte Titoli, your broker is required by Italian law, upon your request, to provide you with a Certification in the Italian Central Depository System. All of our shareholders, including our Italian shareholders, are cordially invited to attend the Annual Meeting.

Importance of Your Vote

In the past, a significant percentage of our shares were held by persons in Italy. If our Italian shareholders do not take the time to vote, we may not be able to obtain a quorum, in which case we would be unable to conduct any business at the Annual Meeting and will not be able to obtain approval of the Proposals. Your vote is important. Please obtain a Certification and an Italian proxy card and vote today.

Deadline to Vote Shares

If you are a shareholder of record who holds shares in record name, your proxy must be received by telephone or the internet by 11:59 p.m. Eastern Time on May 15, 2017 in order for your shares to be voted at the Annual Meeting. You also have the option of completing, signing, dating and returning the proxy card enclosed with the Proxy Statement so that it is received prior to the adjournment of the Annual Meeting on May 16, 2017 in order for your shares to be voted at the Annual Meeting. If you hold your shares through a broker, bank or other nominee (e.g. as a beneficial owner), please comply with the deadlines included in the voting instruction card provided by the bank, broker or other nominee that holds your shares.

If you are an Italian shareholder who has requested and received a Certification, and you are not intending to vote in person, then, in order for your vote to be counted at the Annual Meeting, your Certification and Italian proxy card must be returned by mail to the address shown on the card or by facsimile to the facsimile number shown thereon prior to the adjournment of the Annual Meeting.

Revocability of Proxies

You may change your vote or revoke your proxy at any time before your proxy is voted at the Annual Meeting. Any shareholder of record executing a proxy has the power to revoke it at any time prior to the voting thereof on any matter by delivering written notice of revocation of your proxy to our Secretary, Bruce J. Seeley, at our principal executive offices, or by executing and delivering another proxy dated as of a later date or by voting in person at the Annual Meeting. For shares held through a broker, bank or other nominee, you may change your vote by submitting new voting instructions to your broker, bank or other nominee, or by obtaining a legal proxy from your broker, bank or other nominee giving you the right to vote your shares at the Annual Meeting.

Attendance at the Annual Meeting will not, by itself, revoke a proxy. For our Italian shareholders, any written notice of revocation or another proxy, in either case dated as of a later date, must also be accompanied by another Certification.

Absence of Specific Voting Instruction; Additional Matters That May Come Before Annual Meeting

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If a quorum is established at the Annual Meeting, all shares of our common stock represented by properly executed proxies that are not revoked will be voted in accordance with the instructions, if any, given therein. Proxy cards that are signed and returned without specifying a vote or an abstention on any proposal specified therein will be voted according to the recommendations of the Board on such proposals, which recommendations are for one year on Proposal 6 and in favor of each of the other Proposals, and will be voted, in the proxies' discretion, upon such other matter or matters that may properly come before the Annual Meeting and any such postponements or adjournments thereof. As of the date of this Proxy Statement, we know of no business other than the Proposals that will be presented for action at the Annual Meeting. All proxy cards, whether received prior to or after the original date of the Annual Meeting, will be valid as to any postponements or adjournments of the Annual Meeting.

Voting Agreement

At the time of our merger with Novuspharma, S.p.A., we entered into an agreement with Monte Titoli in order to ensure that persons receiving beneficial interests in shares of our common stock as a result of the merger or subsequently acquiring shares of our common stock through an account with an Italian bank on the Mercato Telematico Azionario stock market in Italy would be able to vote those shares. Monte Titoli agreed that each time it is designated as proxy by DTC, Monte Titoli will execute a further omnibus proxy transferring its voting power to the persons who hold Certifications issued pursuant to Italian law (Section 21 (and the following sections) of the Regulation enacted by the Bank of Italy and CONSOB on February 22, 2008).

PROPOSAL 1: ELECTION OF DIRECTORS

Summary

Under our Bylaws, the number of directors constituting the entire Board may be decreased or increased by majority action of either the Board or the shareholders. Unless a director dies, resigns or is removed, no decrease in the number of directors may have the effect of shortening the term of any incumbent director. In the event of a vacancy on the Board, our Bylaws permit a majority of the remaining directors in office to fill the vacancy, and the director then chosen will hold office until the next shareholders' meeting at which directors are elected. At such meeting, the director will stand for election until his or her successor is elected. The Board fixed the number of directors at nine, effective upon Dr. Craig's appointment to the Board, and upon the expiration of Dr. Bianco's term on the Board, the number of directors will be fixed at eight.

Nominees for Election as Directors

Dr. Craig, Mr. Love, Mr. Metzger, Dr. Nudelman, Mr. Perry, Dr. Singer, Dr. Telling, and Dr. Tuckson have each been nominated by the Board for election at the Annual Meeting for a one-year term, each expiring at the annual meeting of shareholders held in 2018 (the "2018 Annual Meeting"). All of our directors up for election to the Board are incumbent directors, except for Mr. Metzger, who joined the Board in January 2017, and Dr. Craig who will join the Board in March 2017.

If elected, each nominee will hold office until the later of the expiration of his or her term or until his or her successor is elected. It is intended that the accompanying proxy will be voted for the election as directors of the aforementioned persons unless the proxy contains contrary instructions.

Each nominee has consented to being named in this proxy statement and has agreed to serve if elected. If any nominee of the Board is unable to serve or, for good cause, will not serve as a director at the time of the Annual Meeting, the persons named as proxies may vote for a substitute nominee designated by our existing Board to fill the vacancy or for the balance of the nominees, leaving a vacancy, unless our Board chooses to reduce the number of directors serving on our Board. As of the date of this proxy statement, we have no reason to believe that any of the nominees will be unable or unwilling to stand as a nominee or to serve as a director if elected.

Vote Required and Board Recommendation

The eight nominees for director seats who receive the most votes cast at the Annual Meeting in person, by telephone or by proxy shall be elected. No cumulative voting for directors is permitted under our Articles. Abstentions and broker non-votes will have no effect on the outcome of the election of directors.

THE BOARD RECOMMENDS

A VOTE "FOR ALL" OF THE NOMINEES NAMED ABOVE.

Information about the Current Directors and Nominees

The table below provides biographical information as of March 8, 2017 for each of our directors and nominees.

Name	Age	Director Since
Adam R. Craig, M.D., Ph.D.	51	2017
Richard L. Love	73	2007
Michael A. Metzger(1)	46	2017
Phillip M. Nudelman, Ph.D.(1)(2)(3)(4)	81	1994

Matthew D. Perry(2)	44	2016
Jack W. Singer, M.D.	74	1991
Frederick W. Telling, Ph.D.(1)(2)	65	2006
Reed V. Tuckson, M.D., F.A.C.P.(1)(3)	66	2011

(1) Member of the Audit Committee.

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- (2) Member of the Compensation Committee.
- (3) Member of the Nominating and Governance Committee.
- (4) Chairman of the Board.

Nominees for Election as Director at the Annual Meeting

The following directors and nominees are standing for election at the Annual Meeting for a one-year term:

Dr. Craig will serve as one of our directors and as our President and Chief Executive Officer effective March 2017. Dr. Craig has worked as an independent consultant providing strategic and operational advice and support to CTI BioPharma and other hematology/oncology biotechnology companies since 2016. Prior to consulting, Dr. Craig was Chief Medical Officer (CMO) and Executive Vice President of Development of Sunesis Pharmaceuticals from 2012 to 2016. From 2008 to 2012, Dr. Craig was CMO and Senior Vice President of Chemgenex Pharmaceuticals Ltd, a publicly traded biotechnology company which was acquired by Cephalon/Teva Pharmaceuticals in 2011. Dr. Craig is a Member of the Royal College of Physicians (UK) and undertook Post-Graduate Training in Pediatrics and Pediatric Oncology. Dr. Craig earned his Bachelor's and Medical degrees from Charing Cross and Westminster Medical School, University of London, and holds a Ph.D. in Molecular Oncology from Leeds University in the U.K. and an MBA from the Open Business School, in the United Kingdom. Dr. Craig recently served as a Product Development Reviewer for the Cancer Prevention Research Institute of Texas.

Dr. Craig's experience as an executive in the pharmaceutical industry, knowledge of biopharmaceuticals, and new leadership role with the Company were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

Mr. Love has been one of our directors since September 2007. On October 2, 2016, Mr. Love was appointed Interim President and Chief Executive Officer upon the retirement of Dr. Bianco. Mr. Love is presently a manager of Translational Accelerator, LLC. Mr. Love is also a director of PAREXEL International Corporation (NASDAQ: PRXL), a publicly traded company, and is a director of the following private companies: Applied MicroArrays Inc., SynDevRx Inc., Cancer Prevention Pharmaceuticals Inc. and CerRx Inc. He was previously a director of ImaRx Therapeutics Inc., and, prior to its acquisition by us in July 2007, served as chairman of the board of Systems Medicine, Inc. He started two biopharmaceutical companies, Triton Biosciences Inc. and ILEX Oncology Inc., and he served as chief executive officer for Triton Biosciences from 1983 to 1991 and as chief executive officer for ILEX Oncology from 1994 to 2001. In addition, Mr. Love has served in executive positions at not-for-profit organizations, including the Cancer Therapy and Research Center, The San Antonio Technology Accelerator Initiative and the Translational Genomics Research Institute. Mr. Love received his B.S. and M.S. in chemical engineering from Virginia Polytechnic Institute.

Mr. Love's many years of experience as an executive in the pharmaceutical, biotechnology and medical research industries were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

Mr. Metzger has been one of our directors since January 2017. Mr. Metzger is currently president and chief operating officer of Syndax Pharmaceuticals, Inc., a publicly traded immuno-oncology biopharmaceutical company. Mr. Metzger served as president and chief executive officer of Regado Biosciences, Inc., a former publicly traded biotechnology company, from 2013 to 2015, where he oversaw the company's successful merger with Tobira Therapeutics, Inc. in 2015 and acted as an advisor to Tobira during its subsequent sale to Allergan in 2016. Previously, Mr. Metzger served as executive vice president and chief operating officer at Mersana Therapeutics, a privately held biotechnology company developing novel immunoconjugate therapies for cancer, from 2011 to 2013 and in senior business development positions including leading mergers and acquisitions at Forest Laboratories, Inc. from 2006 to 2011. Mr. Metzger served as vice president corporate development at Onconova Therapeutics, Inc., from

2001 until 2006, and was a managing director at MESA Partners, Inc., a venture capital firm, from 1997 to 2001. Mr. Metzger holds a B.A. from George Washington University and an M.B.A. in Finance from the New York University Stern School of Business.

Mr. Metzger's business and management experience in the biopharmaceutical industry were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

Dr. Nudelman has been one of our directors since March 1994. From 2000 to 2007, he served as the President and Chief Executive Officer of The Hope Heart Institute. From 1998 to 2000, he was the Chief Executive Officer and Chairman of the board of directors of Kaiser/Group Health. He held various executive positions at Group Health from 1973 through 1990 and, from 1990

to 2000, Dr. Nudelman was the President and Chief Executive Officer of Group Health Cooperative of Puget Sound, a consumer governed healthcare delivery and financing organization. He retired from Group Health as President and CEO Emeritus. He also served on the board of directors of OptiStor Technologies, Inc. He previously served as an independent director and as the non-executive Chairman of SpaceLabs Medical, Inc. prior to its 2002 acquisition by Instrumentarium Corporation (which was subsequently acquired by General Electric Company in 2003). Additionally, he served as an independent director on the board of directors of ATL Ultrasound Inc. from 1994 to 1999 and First Medic Inc. from 1988 to 1992 and on a number of community non-profit boards. Dr. Nudelman served on the White House Task Force for Health Care Reform from 1992 to 1994 and the President's advisory Commission on Consumer Protection and Quality in Health Care from 1996 to 1998. He has also served on the Pew Health Professions Commission, the AMA Task Force on Ethics and the Woodstock Ethics Commission, and he is the past Chairman of the American Association of Health Plans. Dr. Nudelman received his B.S. in microbiology, zoology and pharmacy from the University of Washington, and holds an M.B.A. and a Ph.D. in health systems management from Pacific Western University. Dr. Nudelman also continues to teach and lecture on operations and governance.

Dr. Nudelman's business and management experience in the healthcare industry, as well as his familiarity with the Company's business garnered through his tenure as a director, were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

Mr. Perry has been one of our directors since January 2016. Mr. Perry is the President of BVF Partners L.P. and portfolio manager for the underlying funds managed by the firm. BVF Partners is a private investment partnership that has focused on small-cap, value oriented investment opportunities for more than 20 years. Mr. Perry joined BVF Partners in December 1996 and has been a successful lead investor in dozens of transactions and has positively influenced corporate direction for numerous biotechnology companies during the course of his career. Mr. Perry is also a co-founder and director of Nordic Biotech Advisors ApS, a venture capital firm based in Copenhagen, Denmark. In February 2017, Mr. Perry was appointed to the Board of Directors of Xoma Corporation, a public company. He holds a B.S. degree from the Biology Department at the College of William and Mary.

Mr. Perry's management consulting experience and his experience investing in biotechnology companies were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

Dr. Singer is one of our founders and directors and currently serves as our Executive Vice President, Chief Scientific Officer, Interim Chief Medical Officer and Global Head of Translational Medicine. Dr. Singer has been one of our directors since our inception in September 1991. From July 1995 to January 2004, Dr. Singer was our Executive Vice President, Research Program Chairman and from April 1992 to July 1995, he served as our Executive Vice President, Research and Development. Prior to joining us, Dr. Singer was a professor of medicine at the University of Washington and a full member of the Fred Hutchinson Cancer Research Center. From 1975 to 1992, Dr. Singer was the Chief of Medical Oncology at the Veterans Administration Medical Center in Seattle. Dr. Singer currently serves as a clinical professor of medicine at the University of Washington and an attending physician at Harborview Medical Center. Dr. Singer received his M.D. from State University of New York, Downstate Medical College.

Dr. Singer's experience as a founder and executive of the Company and experience as a medical doctor and in the pharmaceutical and biotechnology industries were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

Dr. Telling has been one of our directors since December 2006. Prior to his retirement in 2007, Dr. Telling was a corporate officer of Pfizer, most recently as Vice President of Corporate Policy and Strategic Management since 1994. He joined Pfizer in 1977 and was responsible for strategic planning and policy development throughout the majority of his career. He currently serves as Chairman of Oragenics Inc. and on the board of directors of Eisai N.A., and Aequus Biopharma, Inc., our majority-owned subsidiary ("Aequus"). Dr. Telling received his B.A. from Hamilton College and his Masters of Industrial and Labor Relations and Ph.D. in Economics and Public Policy from Cornell

University.

Dr. Telling's business and industry experience as well as experience as a director of public companies were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

Dr. Tuckson has been one of our directors since September 2011. Dr. Tuckson serves as the Managing Director of Tuckson Health Connections, a private consulting company. From December 2006 to March 2014, Dr. Tuckson served as the Executive Vice President and Chief of Medical Affairs of UnitedHealth Group and, from November 2000 to December 2006, he served as Senior Vice President of Clinical Affairs of UnitedHealth Group. Dr. Tuckson also served as Senior Vice President, Professional

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Standards, for the American Medical Association, President of the Charles R. Drew University of Medicine and Science in Los Angeles, Senior Vice President for Programs of the March of Dimes Birth Defects Foundation and Commissioner of Public Health for the District of Columbia. He currently serves on the board of directors of the Alliance for Health Reform, the American Telemedicine Association, Project Sunshine, the Arnold P. Gold Foundation and the Advisory Committee of the National Institutes of Health for Alternate and Integrative Medicine. Dr. Tuckson received his B.S. in zoology from Howard University and his M.D. from the Georgetown University School of Medicine, and he completed the Hospital of the University of Pennsylvania's General Internal Medicine Residency and Fellowship programs.

Dr. Tuckson's experience as a healthcare executive and consultant across health and medical care sectors were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

Board and Committee Meetings

The Board held twenty-five meetings during the year ended December 31, 2016. All directors who served during fiscal 2016 attended at least 75% of the total number of meetings of the Board and of all committees of the Board on which each director served that year. Independent directors of the Board meet in regularly scheduled sessions without management. Our policy is to encourage attendance at the Annual Meeting. One of the directors in office at the time of our 2016 Annual Meeting was in attendance at such meeting.

The Board has an Audit Committee, a Compensation Committee, an Executive Committee and a Nominating and Governance Committee.

Audit Committee

The Company has a separately-designated standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The Audit Committee has responsibility for assisting the Board in overseeing our accounting and financial reporting processes and audits of our financial statements. The Audit Committee assists the Board in oversight and monitoring of (i) the integrity of our financial statements, (ii) our compliance with legal and regulatory requirements, (iii) the independent auditor's qualifications, independence and performance and (iv) our internal controls over financial reporting and systems of disclosure controls and procedures. The Audit Committee has a written charter, which is available on our website at [http:// www.ctibiopharma.com](http://www.ctibiopharma.com). The composition of the Audit Committee, the attributes of Audit Committee members and the responsibilities of the Audit Committee as reflected in its charter adopted by the Board are intended to be in accordance with SEC rules and NASDAQ Stock Market Rules with regard to corporate audit committees.

The Audit Committee held five meetings during the year ended December 31, 2016. The Audit Committee currently consists of four non-employee directors: Dr. Nudelman (Chairperson), Mr. Metzger, Dr. Telling and Dr. Tuckson.

The Board has determined that each of the current members of the Audit Committee meets the requirements of "independence" as set forth in Section 10A-3 of the Exchange Act, the rules and regulations promulgated by the SEC and the NASDAQ Stock Market Rules. Additionally, the Board has determined that Dr. Telling qualifies as an "audit committee financial expert" as defined under the rules and regulations of the SEC and that he has accounting and related financial management expertise within the meaning of the NASDAQ Stock Market Rules.

Compensation Committee

The Compensation Committee has responsibility for:

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carrying out the Board's responsibilities relating to compensation of the Company's Chief Executive Officer, all other officers with the title of Executive Vice President and above and any other employee of the Company to the extent required under applicable law or NASDAQ Stock Market Rules;

• carrying out any other Board responsibilities relating to the Company's overall compensation and benefit structure, policies and programs;

- administering our equity compensation plans; and

reviewing and approving our annual compensation disclosure and analysis included in our annual report and proxy statement.

The Compensation Committee charter authorizes the Compensation Committee to delegate any of its responsibilities to a subcommittee as and when it deems appropriate, solely to the extent permitted by applicable law and the applicable rules of NASDAQ.

The Compensation Committee held thirteen meetings during the year ended December 31, 2016. The Compensation Committee currently consists of three non-employee directors: Dr. Telling (Chairperson), Dr. Nudelman and Mr. Perry, each of whom meets the requirements of independence as set forth in the rules and regulations promulgated by the SEC and the NASDAQ Stock Market Rules. The Compensation Committee has a written charter, which is available on our website at <http://www.ctibiopharma.com>. For a discussion of the processes and procedures for determining compensation for our named executive officers, please see "Compensation Discussion and Analysis." In 2015, the Compensation Committee engaged Frederic W. Cook & Co., Inc. ("FW Cook"), an independent compensation consultant, to provide compensation consulting services with regard to the compensation of our executive officers and directors. For more information regarding the services provided by FW Cook, please see "Compensation Discussion and Analysis."

Nominating and Governance Committee

The Nominating and Governance Committee is responsible for establishing standards and processes so that the Board can be properly constituted to meet its fiduciary obligations to us and our shareholders and so that we have and follow appropriate governance standards. The Nominating and Governance Committee is responsible for reviewing with the Board, on an annual basis, the desired Board qualifications, expertise, characteristics and other factors for potential consideration, which review includes consideration of diversity, skills and experience. The Nominating and Governance Committee is responsible for conducting searches for potential Board members with corresponding attributes and evaluating and proposing nominees for election to the Board. Our Corporate Governance Guidelines set forth the qualifications that should be met by director nominees, which include, but are not limited to, the following: (i) a background that demonstrates an understanding of the business, financial affairs and complexities of our business, as well as general health care, science and technology matters, (ii) fundamental qualities such as intelligence, honesty, perceptiveness, good judgment, maturity, high ethics and standards, integrity, fairness and responsibility, (iii) a genuine interest in our business and recognition that each director is accountable to all shareholders, (iv) a willingness to invest significant time in reviewing detailed and technical background information in preparation for Board meetings, (v) experience in a senior position in a complex organization, (vi) no legal impediment that would interfere with the duty of loyalty to the Company and our shareholders, (vii) the ability and willingness to spend the time required to function effectively as a director in our industry, which requires ad-hoc Board and committee meetings, (viii) be compatible and able to work well with the other directors, management and legal counsel, and (ix) possesses independent opinions and a willingness to state them in a constructive manner. Each of the nominees for election as a director at the Annual Meeting holds or has held senior executive positions in, and/or has experience serving on the boards of directors and board committees of, large, complex organizations and has operating experience that meets this objective. In these positions, they have also gained experience in core management skills, such as strategic and financial planning, public company financial reporting, corporate governance, risk management and leadership development.

The Nominating and Governance Committee also believes that each of the nominees and current directors has other key attributes that are important to an effective board: integrity and demonstrated high ethical standards; sound judgment; analytical skills; the ability to engage management and each other in a constructive and collaborative fashion; diversity of origin, background, experience and thought; and the commitment to devote significant time and energy to service on the Board and its committees.

The Nominating and Governance Committee ensures that nominations to the Board are made such that the Board is properly constituted in terms of overall composition and governance. Although we do not have a policy regarding diversity, the Nominating and Governance Committee seeks a broad range of perspectives and considers both the personal characteristics (gender, ethnicity and age) and experience (industry, profession and public service) of directors and prospective nominees to the Board. The Nominating and Governance Committee will consider nominees to the Board recommended by a shareholder in accordance with the procedures set forth below under “Shareholder Proposals and Recommendations.”

The Nominating and Governance Committee is responsible for recommending director nominees to the Board for its consideration, while the Board is ultimately responsible for determining the Board slate for election by shareholders and for filling any vacancies on the Board in accordance with the Bylaws. All of the director nominees named in this Proxy Statement satisfied the Board's criteria for membership and were recommended to the Board by the Nominating and Governance Committee for election by shareholders at the Annual Meeting.

The Nominating and Governance Committee held three meetings during the year ended December 31, 2016. The Nominating and Governance Committee currently consists of two non-employee directors: Dr. Tuckson (Chairperson) and Dr. Nudelman, both of whom meet the independence requirements as set forth in the rules and regulations promulgated by the SEC and the NASDAQ Stock Market Rules. The Nominating and Governance Committee has a written charter, which is available on our website at <http://www.ctibiopharma.com>.

Scientific Advisory Board

The Company's Scientific Advisory Board was created to assist management with respect to the strategic development of the Company's oncology portfolio and clinical programs, its business development relating to in-licensing and out-licensing opportunities and research and development activities in general, regulatory matters and the Company's use of translational and personalized approaches to therapeutic targets. Daniel Von Hoff, M.D., F.A.C.P. is the current sole member of the Scientific Advisory Board, who at the request of the company, can bring other members to the board to advise the company on the aforementioned matters.

Attributes and Independence

We believe that the Board as a whole should encompass a range of talent, skill, diversity and expertise enabling it to provide sound guidance with respect to our operations and interests. In addition to considering a candidate's background and accomplishments, candidates are reviewed in the context of the current composition of the Board and the evolving needs of our business. In addition, all directors should possess the qualifications set forth in our Amended and Restated Corporate Governance Guidelines (the "Corporate Governance Guidelines"), which are available on our website at <http://www.ctibiopharma.com>.

Our policy is to have at least a majority of directors qualify as "independent" under the NASDAQ Stock Market Rules. The Company, the Nominating and Governance Committee and the Board are involved in the process of determining the independence of acting directors and director nominees. We solicit relevant information from directors and director nominees via a questionnaire, which covers material relationships, compensatory arrangements, employment and any affiliation with us. In addition to reviewing information provided in the questionnaire, we ask our executive officers on an annual basis regarding their awareness of any existing or currently proposed transactions, arrangements or understandings involving us in which any director or director nominee has or will have a direct or indirect material interest. We share our findings with the Nominating and Governance Committee and the Board regarding the NASDAQ and SEC independence requirements and any information regarding the director or director nominee that suggests that such individual is not independent. The Board considers all relevant issues, including consideration of any transactions, relationships or arrangements that are not required to be disclosed under Item 404(a) of Regulation S-K, prior to making a determination with respect to the independence of each director. In making the independence determination with respect to Dr. Telling, the Board considered Dr. Telling's relationship with our majority-owned subsidiary, Aequus, which is discussed under "Other Information - Certain Transactions with Related Persons." With respect to the independence of Mr. Perry, the Board considered Mr. Perry's position as President of BVF, our largest shareholder, which is discussed under "Other Information - Certain Transactions with Related Persons."

Based on the review described above, the Board affirmatively determined that:

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A majority of the directors of the Board are independent, and all members of the Audit Committee, Compensation Committee and Nominating and Governance Committee are independent, under the applicable NASDAQ standards and, in the case of the Audit Committee and the Compensation Committee, the applicable SEC standards.

All of the non-management directors of the Board are independent under the NASDAQ standard. The independent directors are: Michael A. Metzger, Phillip M. Nudelman, Ph.D., Matthew D. Perry, Frederick W. Telling, Ph.D. and Reed V. Tuckson, M.D., F.A.C.P. In addition, effective upon his stepping down from his position as Interim President and Chief Executive Officer in March 2017, Richard L. Love will also be independent under the NASDAQ standard.

Jack W. Singer, M.D. is not independent by virtue of his officer position with the Company. In addition, Dr. Craig will not be independent by virtue of his role as President and Chief Executive Officer of the Company, effective March 2017.

Other than as described above, in 2016, there were no transactions, relationships or arrangements not disclosed as related person transactions that were considered by the Board in determining that the applicable independence standards were met by each of the directors.

Leadership Structure

The Board has a formal policy that the positions of Chief Executive Officer and Chairman of the Board shall continue to be held by separate individuals. Dr. Nudelman has served as the Chairman of the Board since October 2005. Because Dr. Nudelman meets the independence standards of the NASDAQ Stock Market Rules, he also presides over separate meetings for the independent directors. The Board regularly provides such independent directors separate meeting time. This structure ensures a greater role for the independent directors in our oversight and active participation of the independent directors in setting agendas and establishing Board priorities and procedures. Further, this structure permits the Chief Executive Officer to focus on the management of our day-to-day operations, while the Chairman of the Board presides at all meetings of the Board at which he is present; calls and prepares the agenda for and presides over separate sessions of the independent directors; acts as a liaison between the independent directors and our management; and performs such other powers and duties as may from time to time be assigned to him by the Board or as may be prescribed by our Bylaws.

Annual Board and Committee Performance Evaluations

The Nominating and Governance Committee is responsible for developing policies and procedures for the Board performance evaluation process, and for overseeing such policies and procedures. The Nominating and Governance Committee's current practice is to conduct a performance evaluation of the Board and each of its committees on an annual basis.

Risk Oversight

Companies face a variety of risks, including credit risk, liquidity risk and operational risk. The Board believes an effective risk management system will (i) timely identify the material risks that we face, (ii) communicate necessary information with respect to material risks to senior executives and, as appropriate, to the Board or relevant committee of the Board, (iii) implement appropriate and responsive risk management strategies consistent with our risk profile and (iv) integrate risk management into our decision-making.

The Board takes the lead in overseeing risk management, and the Audit Committee makes periodic reports to the Board regarding briefings provided by management and advisers, as well as the Audit Committee's own analysis and conclusions regarding the adequacy of our risk management processes. Material risks are identified and prioritized by management, and each prioritized risk is referred to a committee of the Board or the full Board for oversight. For example, management refers strategic risks to the full Board, while financial risks are referred to the Audit Committee. The Board regularly reviews information regarding our credit, liquidity and operations, as well as the risks associated with each, and annually reviews our risk management program as a whole. Also, the Compensation Committee reviews our compensation programs to help ensure that they do not encourage excessive risk-taking. Please see "Compensation Discussion and Analysis - Risk Considerations" for more information.

In addition to the formal compliance program, the Board encourages management to promote a corporate culture that incorporates risk management into our corporate strategy and day-to-day business operations. The Board also continually works, with the input of our executive officers, to assess and analyze the most likely areas of future risk

for us.

Our Board believes that the processes it has established for overseeing risk would be effective under a variety of leadership frameworks and therefore do not materially affect its choice of leadership structure as described under “Leadership Structure” above.

Code of Ethics

We have adopted a code of ethics for our senior executive and financial officers (including our principal executive officer and principal financial officer), as well as a code of business conduct and ethics applicable to all officers, directors and employees.

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Both codes of ethics are available on our website at <http://www.ctibiopharma.com>. Shareholders may request a free copy of the codes of ethics by contacting the Company at (206) 282-7100 or at CTI BioPharma Corp., Attention: Investor Relations, 3101 Western Avenue, Suite 600, Seattle, Washington 98121, U.S.A. Any amendments to, or waivers from, our code of ethics for our directors and executive officers will be posted on our website at <http://www.ctibiopharma.com> to the extent required by applicable SEC and NASDAQ rules.

Corporate Governance Guidelines

We have adopted Corporate Governance Guidelines, which are available on our website at <http://www.ctibiopharma.com>. Shareholders may request a free copy of the Corporate Governance Guidelines at the address and phone number set forth above.

Shareholder Proposals and Recommendations

Proposals for Inclusion in Proxy Materials. Shareholder proposals submitted pursuant to Rule 14a-8 of the Exchange Act and intended for inclusion in the proxy statement related to the 2018 Annual Meeting should be sent to our Secretary at 3101 Western Avenue, Suite 600, Seattle, Washington 98121, U.S.A. and must be received by November 11, 2017. Shareholders interested in submitting a proposal for inclusion in the proxy materials for our 2018 Annual Meeting must follow the procedures prescribed in Rule 14a-8 under the Exchange Act.

Nomination of Director Candidates and Proposals Not Intended for Inclusion in Proxy Materials. If you intend to nominate an individual for election to our Board at our 2018 Annual Meeting or wish to present a proposal at the 2018 Annual Meeting but do not intend for such proposal to be included in the proxy statement for such meeting, our Bylaws require that, among other things, shareholders give written notice of the nomination or proposal to our Secretary at our principal executive offices no less than the close of business on February 15, 2018 (the 90th day prior to the first anniversary of the Annual Meeting) and no more than the close of business on January 16, 2017 (the 120th day prior to the first anniversary of the Annual Meeting). Notwithstanding the foregoing, in the event that we change the date of the 2018 Annual Meeting to a date that is more than 30 days before or after the date one year from the date of the Annual Meeting, written notice by a stockholder must be received by later than the close of business on the tenth day following the date on which the public announcement is first made of the date of the 2018 Annual Meeting. Shareholder proposals not intended to be included in the proxy statement or nominations for director candidates that do not meet the notice requirements set forth above and further described in Sections 13 and 14 of Article II of our Bylaws will not be acted upon at the 2018 Annual Meeting.

As set forth in our Bylaws, each notice of a director nomination should contain the following information: (i) the name and address of the shareholder who intends to make the nomination and of the person or persons to be nominated; (ii) a representation that the shareholder is a holder of record of stock of the Company entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice; (iii) a description of all arrangements or understandings between the shareholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the shareholder; (iv) such other information regarding each nominee proposed by such shareholder 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, or intended to be nominated, by the Board; and (v) the consent of each nominee to serve as a director of the Company if so elected. The Chairman of the meeting may in his discretion determine and declare to the meeting that a nomination was not made in accordance with the foregoing procedures, and if so determined, he will so declare to the meeting and the defective nomination will be disregarded.

As set forth in our Bylaws, each notice of a shareholder proposal (whether or not to be included in the proxy statement) should contain the following information: (i) the address of the shareholder who intends to make the proposal(s); (ii) a representation that the shareholder is a holder of record of stock of the Company entitled to vote at

such meeting and intends to appear in person or by proxy at the meeting to vote for the proposal(s); and (iii) such other information regarding each proposal as would be required to be included in a proxy statement filed pursuant to the proxy rules of the SEC. The Chairman of the meeting may in his discretion determine and declare to the meeting that a proposal was not made in accordance with the foregoing procedures, and if so determined, he shall so declare to the meeting and the defective proposal will be disregarded.

Shareholder Recommendations. A shareholder may recommend a director to the Nominating and Governance Committee by delivering a written notice to our Secretary at our principal executive offices and including in the notice the items required by Section 13 of Article II of our Bylaws as well as (i) a comprehensive written resume of the nominee's business experience and background, and (ii) the consent of the director candidate to serve as a member of the Board if elected. Properly communicated

shareholder recommendations will be considered in the same manner as recommendations received from other sources and using the same criteria as used for any other director candidate. See “Nominating and Governance Committee” above for additional information.

Communicating Concerns to Directors

Shareholders who wish to communicate with our directors to report complaints or concerns related to accounting, internal accounting controls or auditing may do so using the Audit Committee procedures for the receipt of such communication. The procedures allow submitting the complaint or concern either online or telephonically, with a more detailed description of the procedures set forth in our Whistleblower Policy, which is contained in our Code of Business Conduct and Ethics available on our website at [http:// www.ctibiopharma.com](http://www.ctibiopharma.com).

Shareholders and other interested parties may communicate with the Board and the Chairman on other matters by writing to Dr. Nudelman, c/o CTI BioPharma Corp., Legal Department, 3101 Western Avenue, Suite 600, Seattle, Washington 98121, U.S.A. The Legal Department will perform a legal review in the normal discharge of duties to ensure that communications forwarded to Dr. Nudelman are appropriate. Items that are unrelated to the duties and responsibilities of the Board such as mass mailings, junk mail, personal employee complaints not related to accounting, internal controls, auditing or officer conduct (which are reviewed and forwarded by the Legal Department), inquiries regarding clinical trials or our operations generally, job inquiries, surveys, business solicitations or advertisements will not be forwarded to Dr. Nudelman. In addition, material that is threatening or similarly unsuitable will not be forwarded to Dr. Nudelman. Any communication that is relevant to the conduct of our business and is not forwarded will be retained for one year and made available to Dr. Nudelman and any other independent director upon request. The independent directors have granted the Legal Department discretion to decide what correspondence shall be forwarded to Dr. Nudelman and what shall be shared with our management, with specific instructions that any personal employee complaints of the nature addressed under our Whistleblower Policy be forwarded as set forth therein. If items are forwarded to Dr. Nudelman, he will decide in his own discretion whether to circulate them to other members of the Board.

PROPOSAL 2:
APPROVAL OF AN AMENDMENT TO THE COMPANY'S AMENDED AND
RESTATED ARTICLES OF INCORPORATION TO INCREASE THE NUMBER OF
AUTHORIZED SHARES

Summary

On March 13, 2017, our Board approved, subject to shareholder approval, an amendment (the "Amendment") to our Articles to (a) increase the total number of authorized shares from 41,533,333 to 81,533,333 and (b) increase the total number of authorized shares of common stock from 41,500,000 to 81,500,000 shares. Pursuant to this Proposal 2, our shareholders are being asked to approve the Amendment.

The proposed Amendment would replace Section 1 of Article II of our Articles with the following language:

"ARTICLE II AUTHORIZED CAPITAL STOCK

Classes. The Corporation shall be authorized to issue two classes of shares of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the Corporation shall have authority to issue shall be Eighty-One Million Five Hundred Thirty-Three Thousand Three Hundred Thirty-Three (81,533,333); the total number of authorized shares of Common Stock shall be Eighty-One Million Five Hundred Thousand (81,500,000); and the total number of authorized shares of Preferred Stock shall be Thirty-Three Thousand Three Hundred Thirty-Three (33,333)."

Purpose and Rationale for Amendment

The Board believes it is in the best interest of the Company to increase the number of authorized shares of common stock. Article II of our Articles currently authorizes us to issue up to 41,533,333 shares of stock, 41,500,000 of which are designated as common stock, no par value per share, and 33,333 shares of which are designated as preferred stock, no par value per share. As of February 10, 2017, 4,064,131 shares of common stock were reserved for issuance under our equity compensation plans, 29,239 shares of common stock were reserved for issuance upon exercise of outstanding warrants, 187,466 shares of common stock were reserved for issuance under our employee stock purchase plan and 1 share of common stock was reserved for issuance upon exercise of outstanding restricted share rights. As a result, currently, there are only approximately 8,993,368 shares of authorized common stock available for future issuance under our existing Articles for other corporate purposes.

Adoption of the Amendment would increase the number of authorized shares of common stock by 40,000,000. Our common stock is all of a single class, with equal voting, distribution, liquidation and other rights. The additional shares of common stock to be authorized by adoption of the Amendment would have rights identical to our currently authorized and outstanding shares of common stock. The Amendment would not affect the rights of the holders of currently outstanding common stock, except to the extent additional shares are actually issued, which may have certain effects, including dilution of the earnings per share of current holders of common stock. The Amendment would not change the authorized number of shares of preferred stock.

Shareholders do not have preemptive rights with respect to our common stock. Therefore, should the Board determine to issue additional shares of common stock currently authorized or authorized by the Amendment, existing shareholders would not have any preferential rights to purchase such shares in order to maintain their proportionate ownership thereof.

We are proposing the Amendment due to the fact that we anticipate the need to issue additional shares of common stock in the future in connection with one or more of the following:

financing transactions, such as public or private offerings of common stock or derivative securities;
our equity incentive plans and employee stock purchase plan;
debt, warrant or other equity restructuring or refinancing transactions, such as debt or warrant exchanges or offerings
of new convertible debt or modifications to existing securities, or as payments of interest on debt securities;

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acquisitions, strategic partnerships, collaborations, joint ventures, restructurings, divestitures, business combinations and strategic investments;

- our Shareholder Rights Agreement, dated December 28, 2009, as amended (the "Rights Plan");
- corporate transactions, such as stock splits or stock dividends; and
- other corporate purposes that have not yet been identified.

If Proposal 2 is adopted, following the filing of the Amendment with the Secretary of State of the State of Washington, the additional authorized shares of common stock would become issuable upon the approval of the Board at such times, in such amounts, and upon such terms as the Board may determine, without further approval of the shareholders, unless such approval is expressly required by applicable law, regulatory agencies, NASDAQ, Mercato Telematico Azionario stock market in Italy or any other exchange or quotation service on which the Company's common stock may then be listed. Shareholder approval of this Amendment will not, by itself, cause any change in the Company's capital accounts. However, any future issuance of additional shares of common stock authorized pursuant to this Proposal 2 would ultimately result in dilution of existing shareholders' equity interests.

We do not believe that our presently authorized but unissued and unreserved shares of common stock will be sufficient to enable us to raise the capital necessary to fund our future operations. One of the ways the Company has historically raised such capital was by issuing shares of common stock and derivative securities convertible into or exercisable for shares of common stock from time to time. Without additional authorized shares of common stock, the Company will be unable to raise all of the financing it will likely need to maintain its operations. In this regard, we engage from time to time in discussions concerning fund raising opportunities. In addition to such periodic discussions regarding fund raising opportunities, we also engage in periodic discussions with potential partners, collaborators, strategic investors and acquisition candidates as part of our business model. In the event a fund raising or other strategic transaction opportunity were to arise, we may not have sufficient time to seek shareholder approval of a specific transaction given our limited cash resources. The additional authorized shares of common stock would enable us to act quickly in response to capital raising and other strategic transactions that may arise, in most cases without the necessity of holding a special shareholders' meeting and obtaining further shareholder approval before the issuance of common stock could proceed (except as may be required by applicable law, regulatory agencies, NASDAQ, Mercato Telematico Azionario stock market in Italy or any other exchange or quotation service on which the Company's common stock may then be listed).

As of the date of this Proxy Statement, the Board has no commitments, arrangements or understandings, written or oral, relating to the issuance of the newly-authorized shares that would be available in the event this Proposal 2 is adopted. However, if this Proposal 2 is adopted by our shareholders and if any discussions regarding a fund raising or strategic transaction come to a definitive understanding, it is possible that we could issue some or all of the newly-authorized shares in one or more such transactions subsequent to the increase in the number of authorized shares pursuant to this Proposal 2. We anticipate that, if Proposal 2 is adopted by our shareholders, we will issue some or all of the newly-authorized shares for fund raising purposes. However, we cannot provide assurances that any such transactions will be consummated on favorable terms or at all, that they would enhance shareholder value or that they would not adversely affect our business or the trading price of our common stock. Further, certain of such transactions may require us to incur non-recurring or other charges and may pose significant integration challenges and/or management and business disruptions, any of which could materially and adversely affect our business and financial results. The Company also plans to continue to issue shares of common stock pursuant to its existing or future equity incentive plans and employee stock purchase plan subsequent to the increase in the number of authorized shares.

Determination of the Size of the Proposed Share Increase

In determining the size of the proposed authorized share increase under this Proposal 2, a number of factors were considered, including the number of shares issuable upon conversion or exercise of our outstanding derivative securities (including warrants and securities issued under our equity incentive plans), the need to issue future

additional shares under our existing or future equity incentive plans in order to recruit and retain directors, officers, employees and other service providers, and under our existing or future employee stock purchase plan, that we expect to need additional shares in connection with future financing transactions in order to fund our operations or for other potential strategic transactions, and the potential that the Board may determine to effect one or more stock splits (in the form of stock dividends) in the future.

Anti-Takeover Effects

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Although this proposal to increase the number of authorized shares of common stock has not been prompted by any current or threatened hostile takeover attempt, shareholders should be aware that approval of this proposal could facilitate future attempts by the Company to oppose changes in control of the Company and to perpetuate our then-current management. For example, without further shareholder approval, the Board could sell shares of our common stock in a private transaction to purchasers who would oppose a takeover attempt or favor our current Board. While the issuance of shares in certain instances may have the effect of forestalling a hostile takeover, as of the date of this Proxy Statement, the Board does not intend or view the increase in authorized common stock as an antitakeover measure, nor are we aware of any proposed or contemplated transaction of this nature.

In addition to the foregoing, existing anti-takeover provisions in our charter documents, in our Rights Plan, and under Washington law could have anti-takeover effects. For example, provisions of our Articles and Bylaws that may have an anti-takeover effect include:

- elimination of cumulative voting in the election of directors;
- procedures for advance notification of shareholder nominations and proposals;
- the ability of our Board to amend our Bylaws without shareholder approval; and
- the ability of our Board to issue shares of preferred stock without shareholder approval upon the terms and conditions and with the rights, privileges and preferences as our Board may determine.

In addition, under our Rights Plan, an acquisition of 20% or more of our common stock by a person or group, subject to certain exceptions, could result in the exercisability of the preferred stock purchase right accompanying each share of our common stock (except those held by a 20% shareholder, which become null and void), thereby entitling the holder to receive upon exercise, in lieu of a number of units of preferred stock, that number of shares of our common stock having a market value of two times the exercise price of the right. The existence of our Rights Plan could have the effect of delaying, deterring or preventing a third party from making an acquisition proposal for us and may inhibit a change in control that some, or a majority, of our shareholders might believe to be in their best interest or that could give our shareholders the opportunity to realize a premium over the then-prevailing market prices for their shares.

As a Washington corporation, we are subject to Washington's anti-takeover statute, which imposes restrictions on some transactions between a corporation and certain significant shareholders. These provisions, alone or together, could have the effect of deterring or delaying changes in incumbent management, proxy contests or changes in control.

Other existing provisions applicable to us that might have a material anti-takeover effect include our executive employment agreements and certain provisions of outstanding employee options and other equity awards that, in each case, accelerate vesting if there is a change in control of our Company.

We have no knowledge of any present efforts to accumulate shares of our common stock in the market or to gain control of us, and we have no present intention to adopt any other provisions or enter into any other arrangements that would have a material anti-takeover effect.

Consequences of Failure to Obtain Shareholder Approval

Without an increase in the number of authorized shares of common stock, the Company may be constrained in its ability to raise capital when needed, and may lose important business opportunities, including to competitors, which could adversely affect our financial performance, growth and ability to continue our operations. As opportunities or circumstances that require prompt action frequently arise, it is the belief of the Board that the delay necessitated for shareholder approval of a specific issuance could be to the detriment of the Company and its shareholders.

Effectiveness of the Amendment; Required Vote and Board Recommendation

If the Amendment is approved by our shareholders, the Amendment will become effective upon its filing with the Secretary of State of the State of Washington, which filing is expected to occur promptly after the Annual Meeting. If the Amendment is not approved by our shareholders, the Amendment will not be filed and the number of authorized shares of common stock under our

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Articles will remain unchanged. Our Board reserves the right, notwithstanding shareholder approval of the Amendment and without further action by our shareholders, not to proceed with the filing of the Amendment.

Approval of this Proposal 2 requires the affirmative vote of a majority of votes cast that are present in person, by telephone or by proxy, provided that the affirmative vote for Proposal 2 equals or exceeds 15% of the votes entitled to be cast. If the affirmative vote does not equal or exceed 15% of the votes entitled to be cast, abstentions will have the effect of votes cast against Proposal 2. However, if the affirmative vote equals or exceeds the 15% threshold, then abstentions will not have the effect of votes cast against Proposal 2. If you do not instruct your broker on how to vote the shares in your account for this Proposal 2, brokers will be permitted to exercise their discretionary authority to vote for such proposal.

THE BOARD UNANIMOUSLY RECOMMENDS

A VOTE "FOR" THE APPROVAL OF THE AMENDMENT TO THE COMPANY'S AMENDED AND RESTATED ARTICLES OF INCORPORATION.

PROPOSAL 3: APPROVAL OF THE COMPANY'S
2017 EQUITY INCENTIVE PLAN

Summary

We are asking you to approve a new equity incentive plan, the 2017 Equity Incentive Plan (the "2017 Plan"). The Board approved the proposed 2017 Plan on March 13, 2017, subject to shareholder approval.

We currently maintain the CTI BioPharma Corp. 2015 Equity Incentive Plan, as amended (the "2015 Plan") and the CTI BioPharma Corp. 2007 Equity Incentive Plan, as amended (the "2007 Plan"). However, no new awards may be granted under the 2007 Plan. As of February 10, 2017, (i) a total of 2,751,557 shares of our common stock were then subject to outstanding options granted under the 2007 Plan or the 2015 Plan, (ii) 378,750 shares of our common stock were then subject to unvested restricted stock awards and unvested restricted stock unit awards granted under the 2007 Plan or the 2015 Plan, (iii) no shares were available for new award grants under the 2007 Plan, and (iv) 1,113,811 shares of our common stock were available for new award grants under the 2015 Plan. If shareholders approve the 2017 Plan, no new awards will be granted under the 2015 Plan after the Annual Meeting. In addition, if so approved, (i) 2,000,000 shares of the Company's common stock will be made available for award grants under the 2017 Plan, and (ii) any shares of common stock subject to outstanding stock options and restricted stock or restricted stock unit awards under the 2015 Plan or the 2007 Plan that expire, are canceled or otherwise terminate after the Annual Meeting (other than shares withheld for the payment of any applicable exercise price or tax withholding) will also be available for award grant purposes under the 2017 Plan.

If shareholders do not approve the 2017 Plan, the Company will continue to have the authority to grant awards under the 2015 Plan. While our authority to grant awards under the 2015 Plan will terminate if shareholders approve the 2017 Plan, the termination of such grant authority will not affect awards then outstanding under the 2015 Plan.

Please see the discussion below under "New Plan Benefits," "Award Burn Rate" and "Dilution" for detailed information on past award grants under the 2007 Plan and the 2015 Plan and the potential dilutive impact of this Proposal 3.

Reasons for Approving the Proposal

We believe the proposed 2017 Plan, and the number of shares that would be available for award grants under the 2017 Plan if shareholders approve this Proposal 3, will facilitate our ability to continue to grant equity incentives, which we believe are vital to our ability to attract and retain outstanding and highly skilled individuals in the extremely competitive service provider markets in which we must compete. We believe that our employees are some of our most valuable assets, and such awards are crucial to our ability to motivate individuals in our service to achieve our goals. Equity awards are a significant component of total compensation for our executive officers, other employees and service providers. If we were to grant fewer equity awards to these individuals, we believe that we would nonetheless need to provide compensation in other forms (such as cash) to provide a total compensation package that is competitive with other companies. We strongly believe that the approval of this Proposal 3 is instrumental to our continued success.

Vote Required and Board Recommendation

The Board believes that the adoption of the 2017 Plan will promote the interests of the Company and its shareholders and will help the Company and its subsidiaries continue to be able to attract, motivate, retain and reward persons important to our success. All members of the Board and all of the Company's executive officers are eligible for awards under the 2017 Plan and thus have a personal interest in the approval of the 2017 Plan.

Approval of the 2017 Plan requires the affirmative vote of the holders of a majority of the shares of our common stock voting on this Proposal 3 in person, by telephone or by proxy at the Annual Meeting. Abstentions and broker

non-votes will not be counted and will have no effect on the outcome of this Proposal 3.

THE BOARD RECOMMENDS A VOTE “FOR”
THE APPROVAL OF THE 2017 PLAN.

Summary Description of the 2017 Plan

The principal terms of the 2017 Plan are summarized below. The following summary is qualified in its entirety by the full

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text of the 2017 Plan, which appears as Appendix A to this Proxy Statement.

Purpose

The purpose of the 2017 Plan is to promote the success of the Company and the interests of our shareholders by providing an additional means for us to attract, motivate, retain and reward selected employees, directors, officers and other eligible persons through the grant of awards. Equity-based awards are also intended to further align the interests of award recipients and our shareholders.

Administration

Our Board or one or more committees appointed by our Board administers the 2017 Plan. A committee may delegate some or all of its authority with respect to the 2017 Plan to another committee of directors, and certain limited authority to grant awards to employees may be delegated to one or more officers of the Company. The Board has delegated general administrative authority for the 2017 Plan to the Compensation Committee, except for authority with respect to awards granted or to be granted to our non-employee directors. The Board has retained sole authority under the 2017 Plan with respect to non-employee directors' awards, although the Compensation Committee has authority under its charter to make recommendations to the Board concerning such awards. (The appropriate body acting as the administrator of the 2017 Plan, be it the Board, a committee within its delegated authority or an officer within his or her delegated authority, is referred to in this Proposal 3 as the "Administrator.")

The Administrator has broad authority under the 2017 Plan including, without limitation, the authority:

- to select eligible participants and determine the type(s) of award(s) that they are to receive;
- to grant awards and determine the terms and conditions of awards, including but not limited to the price (if any) to be paid for the shares or the award and the number of shares (if a securities-based award) to be offered or awarded;
- to determine any applicable vesting and exercise conditions for awards, or determine that no delayed vesting or exercise is required, and to accelerate or extend the vesting or exercisability or extend the term of any or all outstanding awards (subject, in the case of stock options and stock appreciation rights, to the maximum ten-year term applicable to those awards);
- to cancel, modify or waive the Company's rights with respect to, or modify, discontinue, suspend or terminate any or all outstanding awards, subject to any required consents;
- subject to the other provisions of the 2017 Plan, to make certain adjustments to an outstanding award and to authorize the conversion, succession or substitution of an award;
- to determine the method of payment of the purchase price (if any) for any award or shares of the Company's common stock, as well as any tax-related items with respect to the award, which may be in the form of cash, check, or electronic funds transfer, by the delivery of already-owned shares of the Company's common stock or by a reduction of the number of shares deliverable pursuant to the award, by services rendered by the recipient of the award, by notice and third party payment or cashless exercise on such terms as the Administrator may authorize, or any other lawful consideration as determined by the Administrator;
- to modify the terms and conditions of any award, establish sub-plans and agreements and determine different terms and conditions that the Administrator deems necessary or advisable to comply with laws in the countries where the Company or one of its subsidiaries operates or where one or more eligible participants reside or provide services;
- to approve the form of any award agreements used under the 2017 Plan; and
- to construe and interpret the 2017 Plan, make rules for the administration of the 2017 Plan and make all other determinations necessary or advisable for the administration of the 2017 Plan.

No Repricing

In no case (except due to an adjustment to reflect a stock split or other event referred to under “Adjustments” below, or any repricing that may be approved by shareholders) will the Administrator (i) amend an outstanding stock option or stock appreciation right to reduce the exercise price or base price of the award, (ii) cancel, exchange or surrender an outstanding stock option or stock appreciation right in exchange for cash or other awards for the purpose of repricing the award or (iii) cancel, exchange or surrender an outstanding stock option or stock appreciation right in exchange for an option or stock appreciation right with an exercise or base price that is less than the exercise or base price of the original award.

Eligibility

Persons eligible to receive awards under the 2017 Plan include officers or employees of the Company or any of its subsidiaries,

directors of the Company and certain consultants and advisers to the Company or any of its subsidiaries. As of February 10, 2017, approximately 94 officers and employees of the Company and its subsidiaries (including all of the Company's named executive officers currently employed by us), each of the Company's 6 non-employee directors and approximately 29 other individuals who provide services to the Company and its subsidiaries as consultants or advisers, were considered eligible under the 2017 Plan. While consultants and advisers to the Company and our subsidiaries are generally considered eligible under the 2017 Plan to preserve flexibility for the Company, over the last five years we have only granted equity awards under the 2015 Plan or its predecessor the 2007 Plan to 5 individuals who, at the time of grant of the awards, were neither employed by the Company, or one of our subsidiaries, nor members of the Board.

Authorized Shares; Limits on Awards

The maximum number of shares of the Company's common stock that may be issued or transferred pursuant to awards under the 2017 Plan equals the sum of: (i) 2,000,000 shares, plus (ii) the number of any shares subject to stock options or restricted stock or restricted stock unit awards granted under the 2015 Plan or the 2007 Plan and outstanding as of the date of the Annual Meeting that expire, or for any reason are cancelled, terminated or forfeited or otherwise reacquired, after the date of the Annual Meeting without being exercised or vested, as applicable. As of February 10, 2017, (i) a total of 442,623 shares of our common stock were then subject to outstanding options granted under the 2007 Plan, (ii) a total of 2,308,934 shares of our common stock were then subject to outstanding options granted under the 2015 Plan, (iii) 62,487 shares of our common stock were then subject to unvested restricted stock or restricted stock unit awards granted under the 2007 Plan, (iv) 316,263 shares of our common stock were then subject to unvested restricted stock or restricted stock unit awards granted under the 2015 Plan, (v) no shares were available for new award grants under the 2007 Plan, and (vi) 1,113,811 shares of our common stock were available for new award grants under the 2015 Plan.

The following other limits are also contained in the 2017 Plan:

The maximum number of shares that may be delivered pursuant to options qualified as incentive stock options granted under the 2017 Plan is 2,000,000 shares.

The maximum number of shares subject to those options and stock appreciation rights that are granted during any calendar year to any individual under the 2017 Plan is 1,200,000 shares.

"Qualified Performance-Based Awards" under Section 5.2 of the 2017 Plan granted to a participant in any one calendar year under the 2017 Plan will not provide for payment of more than (i) in the case of such awards payable only in cash and not related to shares, \$1,000,000 and (ii) in the case of such awards related to shares (and in addition to options and stock appreciation rights which are subject to the limit referred to above), 1,200,000 shares.

The maximum grant date fair value for awards granted to a non-employee director under the 2017 Plan during any one calendar year is \$375,000, except that this limit is \$475,000 as to a non-employee director who is serving as the Chairman of the Board at the time the applicable grant is made. For purposes of this limit, the "grant date fair value" of an award means the value of the award on the date of grant of the award determined using the equity award valuation principles applied in the Company's financial reporting. This limit does not apply to, and will be determined without taking into account, any award granted to an individual who, on the grant date of the award, is an officer or employee of the Company or one of its subsidiaries. This limit applies on an individual basis and not on an aggregate basis to all non-employee directors as a group.

Except as described in the next sentence, shares that are subject to or underlie awards that expire or for any reason are canceled or terminated, are forfeited, fail to vest or for any other reason are not paid or delivered under the 2017 Plan will again be available for subsequent awards under the 2017 Plan. Notwithstanding the foregoing, shares that are exchanged by a participant or withheld by the Company to pay the exercise or purchase price of an award granted under the 2017 Plan, as well as any shares exchanged or withheld to satisfy the tax withholding obligations related to any award granted under the 2017 Plan, will not be available for subsequent awards under the 2017 Plan. To the

extent that an award is settled in cash or a form other than shares, the shares that would have been delivered had there been no such cash or other settlement will not be counted against the shares available for issuance under the 2017 Plan. In the event that shares are delivered in respect of a dividend equivalent right, the actual number of shares delivered with respect to the award shall be counted against the share limit of the 2017 Plan. (For purposes of clarity, if 1,000 dividend equivalent rights are granted and outstanding when the Company pays a dividend, and 50 shares are delivered in payment of those rights with respect to that dividend, 50 shares shall be counted against the share limit of the plan.) To the extent that shares are delivered pursuant to the exercise of a stock appreciation right or stock option, the number of underlying shares as to which the exercise related shall be counted against the applicable share limits, as opposed to only counting the shares actually issued. (For purposes of clarity, if a stock appreciation right relates to 100,000 shares and is exercised at a time when the payment due to the participant is 15,000 shares, 100,000 shares shall be charged against the applicable share limits with respect to such exercise.) In addition, the 2017 Plan generally provides that shares issued in connection with awards that are granted by or become

obligations of the Company through the assumption of awards (or in substitution for awards) in connection with an acquisition of another company will not count against the shares available for issuance under the 2017 Plan. The 2017 Plan does not permit the Company to increase the applicable share limits of the 2017 Plan by repurchasing shares of common stock on the market (by using cash received through the exercise of stock options or otherwise).

Types of Awards

The 2017 Plan authorizes stock options, stock appreciation rights and other forms of awards granted or denominated in the Company's common stock or units of the Company's common stock, as well as cash bonus awards. The 2017 Plan retains flexibility to offer competitive incentives and to tailor benefits to specific needs and circumstances. Any award may be structured to be paid or settled in cash.

A stock option is the right to purchase shares of the Company's common stock at a future date at a specified price per share (the "exercise price"). The per share exercise price of an option generally may not be less than the fair market value of a share of the Company's common stock on the date of grant. The maximum term of an option is ten years from the date of grant. An option may either be an incentive stock option or a non-qualified stock option. Incentive stock option benefits are taxed differently from non-qualified stock options, as described under "U.S. Federal Income Tax Consequences of Awards under the 2017 Plan" below. Incentive stock options are also subject to more restrictive terms and are limited in amount by the Internal Revenue Code and the 2017 Plan. Incentive stock options may only be granted to employees of the Company or a subsidiary.

A stock appreciation right is the right to receive payment of an amount equal to the excess of the fair market value of share of the Company's common stock on the date of exercise of the stock appreciation right over the base price of the stock appreciation right. The base price will be established by the Administrator at the time of grant of the stock appreciation right and generally may not be less than the fair market value of a share of the Company's common stock on the date of grant. Stock appreciation rights may be granted in connection with other awards or independently. The maximum term of a stock appreciation right is ten years from the date of grant. Options and stock appreciation rights may be fully vested at grant or may be subject to time- and/or performance-based vesting requirements.

The other types of awards that may be granted under the 2017 Plan include, without limitation, stock awards, restricted stock, restricted stock units or phantom stock (which are contractual rights to receive shares of stock, or cash based on the fair market value of a share of stock), dividend equivalents that represent the right to receive a payment based on the dividends paid on a share of stock over a stated period of time, or similar rights to purchase or acquire shares and cash awards. Any awards under the 2017 Plan may be fully- vested at grant or may be subject to time- and/or performance-based vesting requirements.

Qualified Performance-Based Awards

Under Section 162(m) of the Internal Revenue Code ("Section 162(m)"), a public corporation generally cannot take a tax deduction in any tax year for compensation it pays to its Chief Executive Officer and certain other executive officers in excess of \$1,000,000 as to each covered executive. Compensation that qualifies as "performance-based" under Section 162(m), however, is excluded from the \$1,000,000 limit if, among other requirements, the compensation is payable only upon attainment of pre-established, objective performance goals under a plan approved by the Company's shareholders.

The Administrator may grant awards under the 2017 Plan that are intended to be performance-based awards within the meaning of Section 162(m). Stock options and stock appreciation rights may qualify as performance-based awards within the meaning of Section 162(m). In addition, other types of awards authorized under the 2017 Plan (such as restricted stock, performance stock, stock units, and cash bonus opportunities) may be granted with performance-based vesting requirements and intended to qualify as performance-based awards within the meaning of

Section 162(m) (“Qualified Performance-Based Awards”). While the Administrator may grant awards under the 2016 Plan that qualify (or are intended to qualify) as performance-based awards within the meaning of Section 162(m), nothing requires that any award qualify as “performance-based” within the meaning of Section 162(m) or otherwise be deductible for tax purposes.

The vesting or payment of Qualified Performance-Based Awards will depend on the performance of the Company on a consolidated, subsidiary, segment, division, or business unit basis. The Administrator will establish the criterion or criteria and target(s) on which performance will be measured. To qualify an award as performance-based under Section 162(m), the Administrator must consist solely of two or more outside directors (as this requirement is applied under Section 162(m)), the Administrator must establish criteria and targets in advance of applicable deadlines under Section 162(m) and while the attainment of the performance targets remains substantially uncertain, and the Administrator must certify that any applicable performance goals and other material

terms of the grant were satisfied. The performance criteria that the Administrator may use for this purpose will include one or more of the following: earnings per share, cash flow (which means cash and cash equivalents derived from either net cash flow from operations or net cash flow from operations, financing and investing activities), cash position, regulatory approval, stock price, total shareholder return, gross revenue, revenue growth, operating income (before or after taxes), net earnings (before or after interest, taxes, depreciation and/or amortization), return on equity or on assets or on net investment, or on sales, cost containment or reduction, or any combination thereof. These performance criteria may be measured on an absolute or relative basis (including relative to the performance of other companies) and may also be expressed as a growth or decline measure relative to an amount or performance for a prior date or period. The performance measurement period with respect to an award may range from three months to ten years. The terms of the Qualified Performance-Based Awards may specify the manner, if any, in which performance targets shall be adjusted to exclude the effects of certain unusual or nonrecurring items identified in the 2016 Plan documents or otherwise specified by the Administrator at the time of establishing the goals.

Qualified Performance-Based Awards may be paid in stock or in cash (in either case, subject to the limits described under the heading “Authorized Shares; Limits on Awards” above). The Administrator has discretion to determine the performance target or targets and any other restrictions or other limitations of Qualified Performance-Based Awards and may reserve discretion to reduce payments below maximum award limits.

Dividend Equivalents; Deferrals

The Administrator may provide for the deferred payment of awards, and may determine the other terms applicable to deferrals. The Administrator may provide that awards under the 2017 Plan (other than options or stock appreciation rights), and/or deferrals, earn dividends or dividend equivalents based on the amount of dividends paid on outstanding shares of common stock, provided that as to any dividend equivalent rights granted in connection with an award granted under the 2017 Plan that is subject to performance-based vesting requirements, no dividend equivalent payment will be made unless the related performance-based vesting conditions of the award are satisfied (or, in the case of a restricted stock or similar award where the dividend must be paid as a matter of law, the dividend payment will be subject to forfeiture or repayment, as the case may be, if the related performance-based vesting conditions are not satisfied).

Assumption and Termination of Awards

If the Company dissolves or undergoes certain corporate transactions such as a merger, business combination, or other reorganization, or a sale of substantially all of its assets, awards then-outstanding under the 2017 Plan will not automatically become fully vested pursuant to the provisions of the 2017 Plan so long as such awards are assumed, substituted for or otherwise continued. However, except as described below, if awards then-outstanding under the 2017 Plan are to be terminated in such circumstances (without being assumed or substituted for), such awards would generally become fully vested. The Administrator also has the discretion to establish and provide for alternative change in control provisions in a particular award agreement with respect to awards granted under the 2017 Plan. For example, the Administrator could provide in such an award agreement for the automatic acceleration of vesting or payment of an award in connection with a corporate event or a termination of the award recipient's employment.

Transfer Restrictions

Subject to certain exceptions contained in Section 5.7 of the 2017 Plan, awards under the 2017 Plan generally are not transferable by the recipient other than by will or the laws of descent and distribution and are generally exercisable, during the recipient's lifetime, only by the recipient. Any amounts payable or shares issuable pursuant to an award generally will be paid only to the recipient or the recipient's beneficiary or legal representative. The Administrator has discretion, however, to establish written conditions and procedures for the transfer of awards to other persons or entities, provided that such transfers comply with applicable securities and exchange control laws and are not made

for value (other than nominal consideration, settlement of marital property rights, or for interests in an entity in which more than 50% of the voting securities are held by the award recipient or by the recipient's family members).

Adjustments

As is customary in incentive plans of this nature, each share limit and the number and kind of shares available under the 2017 Plan and any outstanding awards, as well as the exercise or purchase prices of awards, and performance targets under certain types of performance-based awards, are subject to adjustment in the event of certain reorganizations, mergers, combinations, recapitalizations, stock splits, stock dividends, or other similar events that change the number or kind of shares outstanding and extraordinary dividends or distributions of property to the shareholders.

No Limit on Other Authority

The 2017 Plan does not limit the authority of the Board or any committee to grant awards or authorize any other compensation, with or without reference to the Company's common stock, under any other plan or authority.

Termination of or Changes to the 2017 Plan

The Board may amend or terminate the 2017 Plan at any time and in any manner. Shareholder approval for an amendment will be required only to the extent then required by applicable law. Adjustments as a result of stock splits or similar events will not, however, be considered an amendment requiring shareholder approval. Unless terminated earlier by the Board, the authority to grant new awards under the 2017 Plan will terminate effective at the close of business on March 12, 2027, subject to any extension that may be approved by our shareholders. Following the expiration or termination of the 2017 Plan, outstanding awards will generally continue to remain outstanding, and the Administrator's authority with respect thereto shall persist. Generally, outstanding awards may be amended by the Administrator (subject to the no repricing provision discussed above), but the consent of the award holder is required if the amendment (or any 2017 Plan amendment) materially and adversely affects the holder.

Federal Income Tax Consequences of Awards under the 2017 Plan

The U.S. federal income tax consequences of the 2017 Plan under current federal law, which is subject to change, are summarized in the following discussion of the general tax principles applicable to the 2017 Plan. This summary is not intended to be exhaustive and, among other considerations, does not describe the deferred compensation provisions of Section 409A of the Internal Revenue Code to the extent an award is subject to and does not satisfy those rules, nor does it describe state, local or international tax consequences.

With respect to non-qualified stock options, the Company is generally entitled to deduct and the participant recognizes taxable income in an amount equal to the difference between the option exercise price and the fair market value of the shares at the time of exercise. With respect to incentive stock options, the Company is generally not entitled to a deduction nor does the participant recognize income at the time of exercise, although the participant may be subject to the U.S. federal alternative minimum tax.

The current federal income tax consequences of other awards authorized under the 2017 Plan generally follow certain basic patterns: nontransferable restricted stock subject to a substantial risk of forfeiture results in income recognition equal to the excess of the fair market value over the price paid (if any) only at the time the restrictions lapse (unless the recipient elects to accelerate recognition as of the date of grant); bonuses, stock appreciation rights, cash and stock-based performance awards, dividend equivalents, restricted stock units and other types of awards are generally subject to tax at the time of payment; and compensation otherwise effectively deferred is taxed when paid. In each of the foregoing cases, the Company will generally have a corresponding deduction at the time the participant recognizes income.

If an award is accelerated under the 2017 Plan in connection with a "change in control" (as this term is used under the Internal Revenue Code), the Company may not be permitted to deduct the portion of the compensation attributable to the acceleration ("parachute payments") if it exceeds certain threshold limits under the Internal Revenue Code (and certain related excise taxes may be triggered). Furthermore, the aggregate compensation in excess of \$1,000,000 attributable to awards that are not "performance-based" within the meaning of Section 162(m) may not be permitted to be deducted by the Company in certain circumstances.

New Plan Benefits

We have not approved any awards that are conditioned upon shareholder approval of the 2017 Plan, and we are not currently considering any specific award grants under the 2017 Plan except the award referenced below for Dr. Craig in connection with his commencing employment with the Company. Future grants under the 2017 Plan will be determined by the Administrator and may vary from year to year and from participant to participant and are not determinable at this time.

If the 2017 Plan had been in existence in fiscal year 2016, the Company expects that its award grants for fiscal year 2016 would not have been substantially different from those actually made in that year. For information regarding stock-based awards granted to the Company's named executive officers during fiscal year 2016, see "Executive Compensation".

Award Burn Rate

The following table presents information regarding the Company's net burn rate for the past three complete fiscal years,

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with average annual net burn rate over such three years being 5.6%. For this purpose, the “net burn rate” for any one particular fiscal year means the total number of shares of the Company’s common stock issuable upon exercise or payment, as the case may be, of the equity-based awards granted by the Company in that fiscal year, less the total number of such shares canceled, terminated or forfeited in the fiscal year without the awards having become vested or paid, as the case may be, divided by the Company’s weighted average number of basic shares of common stock issued and outstanding during that particular fiscal year. For purposes of this table, the long-term incentive plan (“LTIP”) awards we granted to certain executive officers and directors prior to 2016 in the form of restricted stock is included in the year awarded (not in the year in which the applicable vesting conditions are satisfied), and LTIP awards granted in the form of restricted stock units (“RSUs”) are taken into account only to the extent the applicable performance-based vesting condition was satisfied in the year indicated (in which case the number of shares issued in payment of those LTIP RSUs has been included in the number of shares subject to restricted stock awards granted in that year; the only year indicated below in which LTIP RSUs vested was 2015).

	2016	2015	2014
Options granted	1,511,299	1,149,185	101,500
Restricted stock/stock unit awards granted	457,036	616,080	(1) 442,616
Less: shares subject to canceled, terminated or forfeited awards	(360,434)	(263,305)	(72,852)
Net shares granted	1,607,901	1,501,960	471,264
Weighted average basic common shares outstanding	27,947,894	18,837,337	14,853,062
Net burn rate (2)(3)	5.8%	8.0%	3.2%

(1) Includes 107,102 shares delivered in payment of LTIP RSUs as to which the applicable performance-based vesting condition was satisfied in 2015.

(2) Net burn rate is equal to (x) divided by (y), where (x) is equal to the sum of total options granted by the Company during the fiscal year, plus the total restricted stock/stock unit awards granted by the Company during the fiscal year, minus the total number of shares subject to stock options, restricted stock and restricted stock unit awards canceled, terminated or forfeited during the fiscal year without the awards having become vested or paid, as the case may be, and where (y) is equal to the Company's weighted average basic common shares outstanding for each respective year.

(3) For the three-year period ended December 31, 2016, the Company's average annual net burn rate using the methodology described in note (2) above was 5.6%.

Assuming a level of grants consistent with the number of equity-based awards granted during 2016 and disregarding any potential cancellations, terminations or forfeitures of any currently outstanding awards, given the speculative nature of these events, it is expected that the 2,000,000 shares requested for the 2017 Plan under this Proposal 3 would provide the Company with flexibility to continue to grant equity-based awards into the third quarter of 2018, assuming such grants occur at an equal rate throughout the projected period. However, this is only an estimate, in the Company’s judgment, based on current circumstances. The total number of shares that are awarded under the 2017 Plan in any one year or from year-to-year may change based on any number of variables, including, without limitation, the value of our common stock (since higher stock prices generally require that fewer shares be issued to produce awards of the same grant date fair value), changes in competitors’ compensation practices or changes in compensation practices in the market generally, changes in the number of our employees, changes in the number of our directors and officers, acquisition activity and the potential need to grant awards to new employees in connection with acquisitions, the need to attract, retain and incentivize key talent, the type of awards we grant, the extent to which any applicable performance-based vesting requirements are satisfied and how we choose to balance total compensation between cash and equity-based awards. The type and terms of awards granted may also change in any one year or from year-to-year based on any number of variables, including, without limitation, changes in competitors’ compensation practices or changes in compensation practices generally, and the need to attract, retain and incentivize key talent.

Dilution

The following table shows the total number of shares of our common stock that were (i) subject to unvested restricted stock and restricted stock unit awards granted under the 2007 Plan and 2015 Plan, (ii) subject to outstanding stock options granted under the 2007 Plan and 2015 and (iii) available for new award grants under the 2015 Plan, in each case, as of each of December 31, 2016 and February 10, 2017. In this Proposal 3, the number of shares of our common stock subject to awards granted during any particular period or outstanding on any particular date is presented based on the actual number of shares of our common stock covered by those awards. This table does not include shares underlying the LTIP awards as those awards expired on December 31, 2016.

	December 31, 2016	February 10, 2017
Shares subject to unvested restricted stock and restricted stock unit awards	369,647	378,750
Shares subject to outstanding stock options (1)	2,806,468	2,751,557
Shares available for new award grants	1,076,676	1,113,811

(1) The Company's outstanding options generally may not be transferred to third parties for value and do not include dividend equivalent rights.

To help assess the potential dilutive impact of this Proposal 3, the number of shares of our common stock outstanding in each of the last three fiscal years is as follows: 17,676,109 shares outstanding at the end of fiscal year 2014; 28,046,109 shares outstanding at the end of fiscal year 2015; and 28,228,602 shares outstanding at the end of fiscal year 2016. The number of shares of our common stock outstanding as of February 10, 2017 was 28,225,792. For these purposes, outstanding shares include unvested restricted shares of our common stock awarded and outstanding as of the applicable date. In addition, in February 2017, we granted stock options to certain non-employee directors as discussed under "Director Compensation" below, and as discussed in the "Compensation Discussion and Analysis" below, we granted additional stock options in March 2017 and the Compensation Committee approved stock option awards for Dr. Craig that are effective on and subject to his commencement of employment with the Company.

The closing market price of our common stock on the NASDAQ Capital Market on March 10, 2017 was \$4.35.

Equity Compensation Plan Information

For information concerning our equity compensation plans, please see "Other Information - Equity Compensation Plan Information" in this proxy statement.

PROPOSAL 4:
RATIFICATION OF THE SELECTION OF INDEPENDENT AUDITOR

Summary

Marcum LLP served as our independent auditor and independent registered public accounting firm for the completion of our audit for the year ended December 31, 2016. The Audit Committee has again approved the appointment of Marcum LLP as our independent auditor for the year ending December 31, 2017, and the Board has further directed that we submit the selection of independent auditor and independent registered public accounting firm for 2017 for ratification by the shareholders at the Annual Meeting.

Representatives of Marcum LLP will have an opportunity to make a statement if they so desire at the Annual Meeting and are expected to be available to respond to appropriate questions.

Although ratification is not required by our Bylaws or otherwise, we are submitting the selection to our shareholders for ratification as a matter of good corporate practice and because we value our shareholders' views. In the event the shareholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee in its discretion may direct the appointment of a different independent auditor and independent registered public accounting at any time during the year if the Audit Committee feels that such a change would be in our and our shareholders' best interests.

Independent Auditor's Fees and Services

The following table provides the aggregate fees billed for professional services rendered by our principal accountants during each of the past two fiscal years ended December 31, 2016 and 2015:

Services Rendered	2016	2015
Audit Fees (1)	\$ 464,000	\$606,000
Audit-Related Fees (2)	—	—
Tax Fees (3)	—	—
All Other Fees (4)	—	—

Audit Fees. This category includes fees for professional services provided in conjunction with the audit of our financial statements and with the audit of management's assessment of internal control over financial reporting and (1) the effectiveness of internal control over financial reporting, review of our quarterly financial statements, assistance and review of documents filed with the SEC, consents and comfort letters and attestation services provided in connection with statutory and other regulatory filings and engagements.

Audit-Related Fees. This category pertains to fees for assurance and related professional services associated with due diligence related to mergers and acquisitions, consultation on accounting standards or transactions, (2) consultation on internal control reviews and assistance with internal control reporting requirements, services related to the audit of employee benefit plans and other attestation services not required by statute or regulation.

(3) Tax Fees. This category pertains to fees for professional services provided related to tax compliance, tax planning and tax advice.

(4) Other Fees. There were no other fees for services not included above.

Pre-Approval Policy

Pursuant to the Amended and Restated Charter for the Audit Committee, the Audit Committee pre-approves all auditing services and permissible non-audit services to be performed by our independent auditor and the associated

fees. The Audit Committee can delegate this responsibility to one or more of its members, provided that such pre-approval decision is presented to the full Audit Committee and its next scheduled meeting. All services performed and related fees billed by Marcum LLP during fiscal year 2016 and fiscal year 2015 were pre-approved by the Audit Committee pursuant to regulations of the SEC.

Vote Required and Board Recommendation

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Ratification of the selection of Marcum LLP as our independent auditor for the year ending December 31, 2017 requires the affirmative vote of the holders of a majority of the shares of common stock voting on this Proposal 4 in person, by telephone or by proxy at the Annual Meeting. Abstentions and any broker non-votes will not be counted in the ratification of the selection of our independent auditor and will have no effect on the outcome of the selection of the independent auditor. If you do not instruct your broker on how to vote the shares in your account for this Proposal 4, brokers will be permitted to exercise their discretionary authority to vote for such proposal.

THE BOARD RECOMMENDS A VOTE "FOR" THE RATIFICATION OF THE SELECTION OF MARCUM LLP AS OUR INDEPENDENT AUDITOR.

Report of the Audit Committee

The Audit Committee reviews and monitors the Company's financial reporting process on behalf of the Board and reviews the Company's system of internal controls. We act only in an oversight capacity, however, and it is management that has the primary responsibility for the financial statements, establishing and maintaining adequate internal controls, and the reporting process. Marcum LLP is responsible for expressing opinions on the conformity of the Company's financial statements in accordance with generally accepted accounting principles, on management's assessment of the effectiveness of the Company's internal control over financial reporting, and on the effectiveness of the Company's internal control over financial reporting. Each member of the Audit Committee is an independent director as determined by the Board, based on the NASDAQ Stock Market Rules promulgated by the NASDAQ Stock Market and the SEC's independence requirements for members of audit committees. In addition, the Board has determined that Frederick W. Telling is an "audit committee financial expert," as defined by SEC rules.

We operate under a written charter, a copy of which is available on the Company's website at <http://www.ctibiopharma.com>. As more fully described in our charter, the purpose of the Audit Committee is to assist the Board in its oversight and monitoring of the Company's financial statements, internal controls and audit matters. We meet each quarter with Marcum LLP and management to review the Company's interim financial results before the publication of the Company's quarterly reports. Management's and Marcum LLP's presentations to and discussions with the Audit Committee cover various topics and events that may have significant financial impact and/or are the subject of discussions between management and the independent auditor. In accordance with the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), we are directly responsible for the appointment, compensation, retention, oversight and, when appropriate, replacement of our independent registered public accounting firm, including the audit fee negotiations associated with the retention of the firm. We also lead the selection of the lead audit partner, working with Marcum LLP with input from management.

In accordance with existing Audit Committee policy and the requirements of the Sarbanes-Oxley Act, all services to be provided by Marcum LLP are subject to pre-approval by the Audit Committee or one of its members to whom such authority may from time to time be delegated. This includes audit services, audit-related services, tax services and other services. Such pre-approval relates to a particular category or group of services and is subject to a specific budget. The Sarbanes-Oxley Act prohibits an issuer from obtaining certain non-audit services from its auditing firm so as to avoid certain potential conflicts of interest; we have not in recent years obtained any of these services from Marcum LLP, and we are able to obtain such services from other service providers at competitive rates.

In addition, we recommend the ratification of the appointment of the independent auditor and review their proposed audit scope, approach and independence. Marcum LLP has served as our independent auditor since 2010. In determining whether to reappoint Marcum LLP, we took into consideration a number of factors, including the length of time the firm has been engaged and the knowledge the firm has of our operations, accounting policies and practices and internal control over financial reporting, the quality of our ongoing discussions with Marcum LLP and an assessment of the professional qualifications and past performance of the lead audit partner and Marcum LLP. In order to assure continuing auditor independence, we also periodically consider whether there should be a regular rotation of our independent auditor. We discussed with Marcum LLP other matters required to be discussed by Auditing Standard No. 16, Communications with Audit Committees, as adopted by the Public Company Accounting Oversight Board. In addition, we have received from, and discussed with, Marcum LLP their annual written report on their independence from us and our management, as required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the audit committee concerning independence and discussed with the auditor whether the provision of any non-audit services provided to the Company by them during 2016 were compatible with the auditor's independence. Following this evaluation, we concluded that the selection of Marcum LLP as the independent auditor is in the best interest of the Company and its shareholders.

We are not professional accountants or auditors and our duties are not intended to duplicate or to certify the activities of management or the independent auditors. It is not the Audit Committee's duty to plan or conduct audits or to determine that the Company's financial statements are complete and accurate and are in accordance with generally accepted accounting principles. Consequently, the Audit Committee is not providing any professional certification as to the independent auditors' work or any expert assurance as to the financial statements.

We have reviewed and discussed the Company's audited financial statements with management and Marcum LLP. Management has represented to the Audit Committee that the financial statements were prepared in accordance with generally accepted accounting principles.

Based upon the review and discussions described in this report, we recommended to the Board that the audited consolidated financial statements be included in the 2016 Annual Report for filing with the SEC.

Respectfully submitted by the Audit Committee:

Phillip M. Nudelman, Ph.D., Chair

Frederick W. Telling, Ph.D.

Reed V. Tuckson, M.D.

Michael A. Metzger

PROPOSAL 5:
ADVISORY VOTE ON EXECUTIVE COMPENSATION

Summary

The Company is providing its shareholders with the opportunity to cast a non-binding advisory vote on the compensation of our named executive officers as disclosed pursuant to the SEC's executive compensation disclosure rules and set forth in this Proxy Statement (including in the compensation tables and narratives accompanying those tables, as well as in the "Compensation Discussion and Analysis").

As described more fully in the "Compensation Discussion and Analysis" of this Proxy Statement, the objectives of our executive compensation program are to allow us to recruit and retain superior talent, to create a direct relationship between executive compensation and performance and to create proper incentives to enhance the value of the Company and reward superior performance.

In furtherance of these objectives, the Company's executive compensation program includes a number of features intended to reflect best practices in the market and help ensure that the program reinforces shareholder interests by directly linking the compensation we pay our executives to our performance. These features are described in more detail in the "Compensation Discussion and Analysis" and include the following:

We generally balance the total annual compensation opportunity for each of our named executive officers so that the greatest emphasis is on "at-risk" pay (annual cash incentive compensation opportunity and grant of equity incentive compensation), with the greatest portion of "at-risk" pay generally being in the form of equity incentive compensation in that it has a value derived from our stock price and also has either a significant performance-based vesting component or a value directly dependent on stock price appreciation.

Since 2012, our equity award program for executives has included Long-Term Performance Awards that would vest only if we achieve specified operational and financial performance goals established by the Compensation Committee by December 31, 2016. These awards expired, unearned, on December 31, 2016 with respect to the performance goals that had not been achieved as of that date.

The Compensation Committee determined in December 2015 that the annual equity award grants for 2016 to our named executive officers would be made in the form of stock options (as opposed to prior years in which annual grants consisted of restricted stock). The change to granting stock options is intended to further align executives' interests with those of stockholders since stock options will have value only if our stock price increases after the grant date and to provide an additional retention incentive.

In addition, the Compensation Committee determined in December 2015 to eliminate most of the perquisites we provide to our named executive officers in order to help simplify our compensation program.

In December 2015, we adopted a Stock Ownership Policy and a Policy Regarding the Recoupment of Certain Compensation Payments (compensation "clawback" policy), as well as revisions to our Insider Trading Policy to prohibit certain hedging and pledging transactions in our securities by our directors and officers, all as discussed in more detail below.

In recent years, the Compensation Committee approved arrangements for our named executive officers that eliminated any gross-up payments for "parachute payment" taxes under Sections 280G and 4999 of the Internal Revenue Code, and approved revisions to the severance agreements with certain of our named executive officers to eliminate "walkaway" right provisions that would have permitted them to voluntarily terminate employment for any reason following a change in control and receive severance benefits. For a discussion of benefits payable to the named executive officers in connection with a termination of employment or a change in control of the Company, see "Potential Payments upon Termination or Change in Control".

In accordance with the requirements of Section 14A of the Exchange Act and the related rules of the SEC, our Board requests your advisory vote on the following resolution at the Annual Meeting:

RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed in this Proxy Statement pursuant to the SEC's executive compensation disclosure rules (which disclosure includes the Compensation Discussion and Analysis, the compensation tables and the narrative discussion that accompanies the compensation tables), is hereby approved.

This vote is an advisory vote only and is not binding on the Company, the Board or the Compensation Committee, and will not be construed as overruling a decision by, or creating or implying any additional fiduciary duty for, the Board or the Compensation Committee. However, the Compensation Committee, which is responsible for designing and administering the Company's executive compensation program, values the opinions expressed by shareholders in their vote on this Proposal 5 and will consider the outcome of the vote when making future compensation decisions for named executive officers.

Our current policy is to provide shareholders with an opportunity to approve the compensation of the Company's named executive officers every year at the annual meeting of shareholders. Proposal 6 is the next such vote.

Vote Required and Board Recommendation

Approval of this Proposal 5 requires the affirmative vote of the holders of a majority of shares of our common stock voting on this Proposal 5 in person, by telephone or by proxy at the Annual Meeting. Abstentions and broker non-votes will not be counted and will have no effect on the outcome of this Proposal 5.

THE BOARD RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" THE APPROVAL OF THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS.

PROPOSAL 6: