CTI BIOPHARMA CORP Form DEF 14A July 29, 2015

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: x Filed by a Party other than the Registrant: o Check the appropriate box:

oPreliminary Proxy Statement oConfidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2)) xDefinitive Proxy Statement oDefinitive Additional Materials oSoliciting 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):

xNo fee required. oFee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11. (1)Title of each class of securities to which transaction applies:

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

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

(4) Proposed maximum aggregate value of transaction:

(5)Total fee paid:

oFee paid previously with preliminary materials.

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

(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed:

CTI BioPharma Corp.

Notice of Annual Meeting of Shareholders

September 23, 2015

NOTICE OF 2015 ANNUAL MEETING OF SHAREHOLDERS

Location:

Date: September 23, 2015

Mandarin Oriental

Time: 10:00 a.m. Eastern Time

1330 Maryland Ave SW

Washington DC, 20024, U.S.A

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;

- (2) To approve the Company's 2015 Equity Incentive Plan;
- (3) To approve an amendment to the Company's 2007 Employee Stock Purchase Plan;
- (4) To ratify the selection of Marcum LLP as the Company's independent auditor for the year ending December 31, 2015;
- (5) To approve, by non-binding advisory vote, the compensation of the Company's named executive officers;
- (6) 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 5; and
- (7)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 July 22, 2015.

YOUR VOTE IS VERY IMPORTANT. Whether or not you plan to attend the 2015 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

Louis A. Bianco Executive Vice President, Finance & Administration, & Secretary

Seattle, Washington

July 29, 2015

TABLE OF CONTENTS

| | Page |
|--|------|
| PROXY SUMMARY | 1 |
| GENERAL INFORMATION CONCERNING THE ANNUAL MEETING | 4 |
| Annual Meeting Agenda | 4 |
| Delivery of Proxy Materials | 4 |
| Solicitation of Proxies | 4 |
| Record Date, Eligibility to Vote, Voting Rights and Outstanding Shares | 4 |
| Dissenters Rights or Appraisal Rights | 5 |
| Quorum, Abstentions, Required Vote and Broker Non-Votes | 5 |
| Methods of Voting | 6 |
| Important Information for our Shareholders in Italy | 6 |
| Deadline to Vote Shares | 8 |
| Revocability of Proxies | 8 |
| Absence of Specific Voting Instruction; Additional Matters That May Come Before Annual Meeting | 8 |
| Voting Agreement | 9 |
| PROPOSAL 1: ELECTION OF DIRECTORS | 10 |
| PROPOSAL 2: APPROVAL OF THE COMPANY'S 2015 EQUITY INCENTIVE PLAN | 19 |
| PROPOSAL 3: APPROVAL OF AN AMENDMENT TO THE COMPANY'S 2007 EMPLOYEE STOCK | - |
| PURCHASE PLAN | 31 |
| PROPOSAL 4: RATIFICATION OF THE SELECTION OF INDEPENDENT AUDITOR | 36 |
| PROPOSAL 5: ADVISORY VOTE ON EXECUTIVE COMPENSATION | 40 |
| PROPOSAL 6: APPROVAL OF THE ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY | |
| OR APPROPRIATE, TO SOLICIT ADDITIONAL PROXIES | 41 |
| EXECUTIVE COMPENSATION | 42 |
| Compensation Discussion and Analysis | 42 |
| Summary | 52 |
| Compensation Committee Report | 53 |
| Compensation Committee Interlocks and Insider Participation | 53 |
| Summary Compensation Table—Fiscal Years 2012-2014 | 53 |
| Grants of Plan-Based Awards—Fiscal Year 2014 | 56 |
| Outstanding Equity Awards at Fiscal 2014 Year-End | 58 |
| Option Exercises and Stock Vested—Fiscal Year 2014 | 62 |
| Potential Payments upon Termination or Change in Control | 62 |
| DIRECTOR COMPENSATION | 66 |
| Non-Employee Director Compensation Table—Fiscal Year 2014 | 66 |
| Non-Employee Director Compensation Tuble Theat 201 | 67 |
| Settlement Entered into in May 2015 | 69 |
| OTHER INFORMATION | 70 |
| Security Ownership of Certain Beneficial Owners and Management | 70 |
| Equity Compensation Plan Information | 72 |
| Executive Officers | 72 |
| <u>Related Party Transactions Overview</u> | 73 |
| <u>Certain Transactions with Related Persons</u> | 73 |
| Beneficial Ownership Reporting Compliance under Section 16(a) of the Exchange Act | 75 |
| Other Business | 75 |
| Delivery of Documents to Shareholders Sharing an Address | 75 |
| Where You Can Find Additional Information | 75 |
| There is a sun i ma radiational information | 15 |

APPENDIX A: 2015 Equity Incentive Plan APPENDIX B: 2007 Employee Stock Purchase Plan, As Amended

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: | September 23, 2015 | | |
|----------------|------------------------------|--|--|
| | 10:00 a.m. Eastern Time | | |
| Location: | Mandarin Oriental | | |
| | 1330 Maryland Ave SW | | |
| | Washington DC, 20024, U.S.A. | | |

Delivery of Proxy Materials (see page 4)

On or about July 29, 2015, 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 4)

You may vote if you were a shareholder of record at the close of business on July 22, 2015.

How to Cast Your Vote (see page 6)

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 September 22, 2015;
- 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 September 22, 2015;
- 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 September 23, 2015; 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 6.

Summary of Voting Matters

| | Board Vote Recommendation | Page Reference |
|--|------------------------------|-------------------|
| | | |
| 1. Approval of proposal to elect directors to the Board of Directors (the "Board") to serv one-year terms. | e FOR each nominee | 10 |
| | | |
| 2. Approval of the Company's 2015 Equity Incentive Plan (the "2015 Plan"). | FOR | 19 |
| | | |
| 3. Approval of an amendment to the Company's 2007 Employee Stock Purchase Plan (th "ESPP"). | ^{1e} FOR | 31 |
| | | |
| 4. Ratification of selection of Marcum LLP as our independent auditor for the year ending December 31, 2015. | FOR | 36 |
| | | |
| 5. Approval, by non-binding advisory vote, of the compensation of the Company's name executive officers. | ^d FOR | 40 |
| | | |
| 6. Approval of adjournment of the Annual Meeting, if necessary or appropriate. | FOR | 41 |
| | | |

Your Vote Matters! (see page 5)

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, 2, 3 or 5 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 10)

| Nominee | Director Since |
|-------------------------|-----------------------|
| James A. Bianco, M.D. | 1991 |
| Karen Ignagni | 2014 |
| Richard L. Love | 2007 |
| Mary O. Mundinger, DrPH | 1997 |
| Jack W. Singer, M.D. | 1991 |

Frederick W. Telling, Ph.D. 2006

Governance Highlights

- During 2014, our Board and shareholders voted to declassify our Board over the subsequent two years, and, as such, our Board will be fully declassified following our 2016 annual meeting of shareholders ("2016 Annual Meeting"). Once fully declassified, shareholders will have the opportunity to vote annually on all director nominees who will stand for one-year terms.
- •Seven of our current nine directors are independent and 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 gender, ethnicity, experience and skills.

•We have a standing Scientific Advisory Board comprised of industry veterans to, among other things, assist the Board in its oversight of the Company's oncology portfolio and clinical trial design.

Fiscal Year 2014 Business Highlights

During 2014, we were successful in advancing our product candidates in clinical trials and expanding our market reach for our commercial product, PIXUVRI. Select fiscal year 2014 highlights include the following:

•We received a \$20 million development milestone payment from Baxter International, Inc. ("Baxter") in connection with the first treatment dosing of the last patient enrolled in PERSIST-1.

2

- •Pacritinib was granted Fast Track designation by the U.S. Food and Drug Administration (the "FDA") for the treatment of intermediate and high risk myelofibrosis, including but not limited to patients with disease-related thrombocytopenia, patients experiencing treatment-emergent thrombocytopenia on other JAK2 therapy or patients who are intolerant to, or whose symptoms are sub-optimally managed on other JAK2 therapy.
- •We initiated the PERSIST-2 Phase 3 clinical trial evaluating pacritinib in patients with myelofibrosis whose platelet counts are less than or equal to 100,000 per microlitre.
- •We entered into a license and collaboration agreement with Les Laboratoires Servier and Institut de Recherches Internationales Servier (collectively, "Servier") with regard to the development and commercialization of PIXUVRI and received an upfront payment of \in 14.0 million (or \$17.8 million using the currency exchange rate as of the date we received the funds in October 2014).
- •We acquired worldwide licensed rights to tosedostat, which is currently being evaluated in several Phase 2 cooperative group-sponsored trials and investigator-sponsored trials for acute myeloid leukemia / myelodysplastic syndrome.

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:

- •Executives' bonuses under our annual incentive program are principally based on the achievement of specific performance objectives established early in the fiscal year by the Compensation Committee of the Board (the "Compensation Committee").
- •Vesting of a significant percentage of executives' equity awards is contingent on the achievement of specific operational and financial performance goals established by the Compensation Committee.

•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. Specifically, only 18% of the value of the named executive officers' aggregate fiscal year 2014 annual compensation (as such values are reflected in the Summary Compensation Table included herein) was assured in the form of salary and perquisites/miscellaneous compensation (not at-risk pay), whereas 82% of such compensation was at-risk compensation, comprised of the following at-risk components: (i) performance-based bonus incentives; (ii) performance-based equity awards; and (iii) time-based equity awards, which we consider at risk both because of time-based vesting requirements and because the value of the awards is ultimately dependent on our stock price at the time of vesting of the awards.

Consistent with our executive compensation program's emphasis on pay-for-performance, we believe that compensation awarded to our named executive officers for fiscal year 2014 reflected our operational performance and achievements. 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 the 2015 Plan ("Proposal 2");
- (3) approve an amendment to the ESPP ("Proposal 3");
- (4) ratify the selection of Marcum LLP as the Company's independent auditor for the year ending December 31, 2015 ("Proposal 4");
- (5) approve, by non-binding advisory vote, the compensation of the Company's named executive officers ("Proposal 5");
- (6) 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 5 ("Proposal 6" and, collectively with Proposals 1 through 6, the "Proposals"); and
- (7)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.

Delivery of Proxy Materials

On or about July 29, 2015, 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, 2014 (the "2014 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 2014 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

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 July 22, 2015 (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 180,359,075 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 authority" on any proposal 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 60,119,692 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 for a company ("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, 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 139,832,045 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 to the account of stock depositories located in a member stock issued and outstanding other than shares held of record by DTC and credited to the account of stock depositories located in a member stock issued and outstanding other than shares held of record by DTC and credited to the account of stock depositories located in a member 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 European Union (the "E.U."). Accordingly, 69,916,023 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 ("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")) and not transferred in accordance with the procedure described below under the heading "Important Information for our Shareholders in Italy" 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 Amended and Restated Articles of Incorporation (the "Articles").

5

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 6. Abstentions will not be counted as votes cast against Proposals 2, 3, 4, 5 and 6 and will have no effect on the outcome of Proposals 2, 3, 4, 5 and 6 because approval is based on the number of votes actually cast.

Proposals 1, 2, 3 and 5 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, 2, 3 and 5, 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, 2, 3 and 5 will have no effect on the outcome of such proposals because approval is based on the number of votes actually cast. Proposals 4 and 6 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 4 and 6, brokers will be permitted to exercise their discretionary authority to vote for such proposals.

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. Many brokers provide the option of voting by internet at www.proxyvote.com or by calling 1-800-690-6903. You will need your 16-digit voting control number, which can be found on the Notice or voting instruction form provided by your broker, bank or other holder of record.

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.

Important Information for our Shareholders in Italy

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, holds these shares of our common stock through the U.S. clearing agency, DTC. Pursuant to U.S. law, DTC will transfer its voting power over the shares in Monte Titoli's account 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).

6

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 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.

Share Transfers

In order to increase the number of shares owned by our Italian shareholders that vote at the Annual Meeting to facilitate our attainment of a quorum at the Annual Meeting and facilitate voting regarding the Proposals, with respect to which we have had difficulties in the past, we have requested that certain Italian banks, in the absence of the shareholder's instructions to the contrary, make book-entry transfers of our common stock, in part or with respect to all of the shares, held in the name of and in the customer's account by such banks to an account opened in the name of the same banks at a U.S. broker-dealer on the Record Date. Under the securities laws of the U.S. and the applicable NYSE Rules, which apply to all NYSE-licensed brokers who have record ownership of listed company stock (including stock such as ours that is listed on NASDAQ), this will permit such U.S. broker-dealers who hold shares transferred to them from Italian banks to vote these shares for certain routine matters to be presented at the Annual Meeting to the extent that the Italian shareholders have not instructed their broker to vote the shares pursuant to the procedures provided for in this Proxy Statement and on the proxy card prepared for our shareholders in Italy, which may be obtained from our website at http://www.ctibiopharma.com. See "Quorum, Abstentions, Required Vote and Broker Non-Votes" above for additional information. Our Italian shareholders will, however, maintain their right to instruct the U.S. broker-dealer so that the broker-dealer refrains from taking any action in relation to such shareholder's shares, including voting the shares. Accordingly, if you do not vote your shares by valid proxy or you do not provide any specific instruction in relation thereto on or before the date of the Annual Meeting and your shares are held through an Italian bank participating in this transfer procedure, your shares will be voted by the U.S. broker-dealer on routine matters at the Annual Meeting pursuant to the discretionary authority granted to them under Rule 452 of the NYSE. However, you may still vote your shares yourself as provided above.

7

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 Italian branch of our subsidiary, CTI Life Sciences Limited (Attention: Investor Relations), at Via Amedei 8, 20123 Milan, Italy;

• 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 September 23, 2015. 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

A significant percentage of our shares are 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 September 22, 2015 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 September 23, 2015 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, Louis A. Bianco, 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

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 in favor of each of the 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 or adjour

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

In connection with the 2014 annual meeting of the shareholders (the "2014 Annual Meeting"), the Board adopted and the shareholders approved an amendment to the Articles to declassify the Board and provide for the annual election of directors to one-year terms. Such declassification is being phased-in through the 2016 Annual Meeting. As a result of the declassification, six directors will stand for re-election to one-year terms at the Annual Meeting. Starting at the 2016 Annual Meeting, all director nominees will stand for election to one-year terms.

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 has fixed the number of directors at twelve. Currently, there are nine members of the Board. From time to time, our Nominating and Governance Committee evaluates potential candidates to fill the vacancies on the Board. Proxies cannot be voted for a greater number of persons than the number of nominees named.

Nominees for Election as Directors

Dr. Bianco, Ms. Ignagni, Mr. Love, Dr. Mundinger, Dr. Singer and Dr. Telling have been nominated by the Board for election at the Annual Meeting for a one-year term, each expiring at the 2016 Annual Meeting. The terms of the other three current directors, Mr. Bauer and Drs. Nudelman and Tuckson, do not expire until the 2016 Annual Meeting.

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 agreed to serve if elected, and we have no reason to believe that any of the nominees will not be a candidate or will be unable to serve.

Vote Required and Board Recommendation

The six 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. Proxies cannot be voted for a greater number of persons than the number of nominees named.

THE BOARD RECOMMENDS

A VOTE IN FAVOR OF EACH NAMED NOMINEE.

Information about Nominees and Continuing Directors

The table below provides biographical information as of June 30, 2015 for each person whose term of office as a director will continue after the Annual Meeting and each nominee for director.

| | | Director | Present Term |
|---|-----|----------|---------------------|
| Name | Age | Since | Expiration |
| Continuing Directors: | | | |
| John H. Bauer(1) | 74 | 2005 | 2016 Annual Meeting |
| Phillip M. Nudelman, Ph.D.(1)(2)(3)(4)(5) | 79 | 1994 | 2016 Annual Meeting |
| Reed V. Tuckson, M.D.(4) | 64 | 2011 | 2016 Annual Meeting |
| Director Nominees: | | | |
| James A. Bianco, M.D.(2) | 58 | 1991 | 2015 Annual Meeting |
| Karen Ignagni | 61 | 2014 | 2015 Annual Meeting |
| Richard L. Love(2)(3)(4) | 71 | 2007 | 2015 Annual Meeting |
| Mary O. Mundinger, DrPH(3)(4) | 78 | 1997 | 2015 Annual Meeting |
| Jack W. Singer, M.D. | 72 | 1991 | 2015 Annual Meeting |
| Frederick W. Telling, Ph.D.(1)(3) | 63 | 2006 | 2015 Annual Meeting |

(1) Member of the Audit Committee.

(2) Member of the Executive Committee.

(3) Member of the Compensation Committee.

(4) Member of the Nominating and Governance Committee.

(5) Chairman of the Board.

Nominees for Election as Director at the Annual Meeting

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

Dr. Bianco is our principal founder and has served as our Chief Executive Officer and director since September 1991. He has also served as our President since July 2012, as well as from February 1992 through July 2008. Prior to co-founding the Company, Dr. Bianco was an assistant professor of medicine at the University of Washington, Seattle, and an assistant member in the clinical research division of the Fred Hutchinson Cancer Research Center. From 1990 to 1992, Dr. Bianco was the director of the Bone Marrow Transplant Program at the Veterans Administration Medical Center in Seattle. Dr. Bianco received his B.S. in biology and physics from New York University and his M.D. from Mount Sinai School of Medicine. Dr. Bianco is the brother of Louis A. Bianco, our Executive Vice President, Finance and Administration.

Ms. Ignagni has been one of our directors since January 2014. Since November 2003, Ms. Ignagni has been the President and Chief Executive Officer of America's Health Insurance Plans. On September 1, 2015, Ms. Ignagni will become President and Chief Executive Officer of Emblem Health Plan in New York City. She has served on the board of directors at the National Quality Forum and holds advisory positions at the Altarum Institute Center for Sustainable Health Spending, Healthcare Financial Management Association and Partnership for Prevention. In addition, Ms. Ignagni is on the board of directors at the Columbia University School of Nursing and serves on each of the board of advisors of The Health Industry Forum at Brandeis University and the National Board of Advisors for Health Policy and Management at the Mailman School of Public Health, Columbia University. Ms. Ignagni received her B.A. in political science from Providence College and her executive M.B.A. from Loyola University in Baltimore, Maryland.

Mr. Love has been one of our directors since September 2007. Mr. Love is presently a manager of Translational Accelerators, 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., PMed Management LLC, 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 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.

Dr. Mundinger has been one of our directors since April 1997. From 1986 to 2010, she was a dean and professor at the Columbia University School of Nursing and an associate dean on the faculty of medicine at Columbia University. In July 2010, Dr. Mundinger was appointed the Edward M. Kennedy Professor in Health Policy and Dean Emeritus at the Columbia University School of Nursing. Dr. Mundinger has served on the board of directors of United Health Group and Gentiva Health Services and is an elected member of the Institute of Medicine of the National Academies, the American Academy of Nursing and the New York Academy of Medicine. Dr. Mundinger received her doctorate in public health from Columbia's School of Public Health.

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. 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.

Directors Continuing in Office until the 2016 Annual Meeting

The following directors currently have terms that are scheduled to expire at the 2016 Annual Meeting:

Mr. Bauer has been one of our directors since October 2005. Mr. Bauer serves as an executive advisor and Chief Financial Officer at DigiPen Institute of Technology. He was formerly Executive Vice President for Nintendo of America Inc. from 1994 to 2004. While at Nintendo of America Inc., he had direct responsibility for all administrative and finance functions. He has also served as a consultant to Nintendo of America Inc. From 1963 to 1994, he worked for Coopers & Lybrand, including serving as the business assurance (audit) practice partner. He was also a member of Coopers & Lybrand's Firm Council, the senior policy making and governing board for the firm. Mr. Bauer is also a member of the board of directors of Zones, Inc. Mr. Bauer received his B.S. in accounting from St. Edward's University.

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 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. 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 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.

Board and Committee Meetings

The Board held eleven meetings during the year ended December 31, 2014. None of the directors attended less than 75% of the total number of meetings of the Board and of all committees of the Board during 2014. Independent directors of the Board meet in regularly scheduled sessions without management. Our policy is to encourage attendance at the Annual Meeting. Six of the directors in office at the time of our 2014 Annual Meeting were in attendance at such meeting.

The Board has an Audit Committee, a Compensation Committee, an Executive Committee and a Nominating and Governance Committee. The Company also has a Scientific Advisory Board, which serves an advisory role to management and the Board.

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 Board has adopted a written charter for the Audit Committee, which is available on our website at 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 seven meetings during the year ended December 31, 2014. The Audit Committee currently consists of three non-employee directors: Mr. Bauer (Chairperson), Dr. Nudelman and Dr. Telling.

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(m)(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 Mr. Bauer 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:

•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.

13

•

The Compensation Committee held six meetings during the year ended December 31, 2014. The Compensation Committee currently consists of four non-employee directors: Dr. Telling (Chairperson), Mr. Love, Dr. Mundinger and Dr. Nudelman, 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, and the manner in which we utilize an outside compensation consultant, please see "Compensation Discussion and Analysis."

Executive Committee

The Executive Committee has the responsibility for (i) assuring that Board advice and counsel are available to management on urgent issues between regularly-scheduled Board meetings and (ii) determining content and areas of strategic discussion for the full Board's deliberation. The Executive Committee meets on an ad hoc basis in its sole discretion. The members of the Executive Committee are Dr. Bianco, Mr. Love and Dr. Nudelman.

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. The Nominating and Governance Committee seeks directors with strong reputations and experience in areas relevant to the strategy and operations of our business, particularly industries and growth segments that we serve, as well as key experience with regulatory agencies such as the FDA and the European Medicines Agency. Each of the nominees for election as a director at the Annual Meeting and each of our other current directors holds or has held senior executive positions in, and/or has 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 of the Board. 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 presented by a shareholder in accordance with the procedures set forth below under "Shareholder Proposals."

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 eight meetings during the year ended December 31, 2014. The Nominating and Governance Committee currently consists of four non-employee directors: Dr. Mundinger (Chairperson), Mr. Love, Dr. Nudelman and Dr. Tuckson, all 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.

14

Scientific Advisory Board

The Company's Scientific Advisory Board assists 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. The Scientific Advisory Board also assists the Board in its oversight of these activities. The current members of the Scientific Advisory Board, which meets on an ad hoc basis in its sole discretion, are Dr. Bianco and Dr. Singer, together with the following four non-management members: Daniel Von Hoff (Chairperson), Brian Druker, Ross Levine, and Alan List.

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.

The Board has adopted standards concerning director independence that meet the NASDAQ independence standards and, with respect to the Audit Committee, the rules of the SEC. Our policy is to have at least a majority of directors qualify as "independent" under the NASDAQ Stock Market Rules and our Amended and Restated Corporate Governance Guidelines (the "Corporate Governance Guidelines"), which is available on our website at http://www.ctibiopharma.com. 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 NASDAO and SEC independence requirements and any information regarding the director or director nominee that suggests that such individual is not independent. The Board discusses 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. Nudelman, the Board considered the fact that Dr. Nudelman's son, Mark Nudelman, served as the President and CEO of the Hope Heart Institute from 2007 until 2013. The Company made charitable donations to the Hope Heart Institute in 2011, 2012 and 2013; however, the amount falls within NASDAQ prescribed limits. The Board also considered the fact that Dr. Nudelman served on the board of a company that provided the company with certain hardware and software services in 2011. The Board also considered Dr. Telling's relationship with our majority-owned subsidiary, Aequus, which is discussed under "Other Information-Certain Transactions with Related Persons."

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

- •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, the applicable SEC standard.
- ·All of the non-management directors of the Board are independent under the NASDAQ standard. The independent directors are: John H. Bauer, Karen Ignagni, Richard L. Love, Mary O. Mundinger, DrPH, Phillip M. Nudelman, Ph.D., Frederick W. Telling, Ph.D. and Reed V. Tuckson, M.D.

·James A. Bianco, M.D. and Jack W. Singer, M.D. are not independent by virtue of their officer positions with the Company.

Other than as described above, in 2014, 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 advisors, 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.

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. 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 waivers of or amendments to our code of ethics will be posted on our website at http://www.ctibiopharma.com.

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.

16

Shareholder Proposals

Shareholder proposals submitted pursuant to Rule 14a-8 of the Exchange Act and intended for inclusion in the proxy statement related to the 2016 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 March 31, 2016. Shareholders interested in submitting a proposal for inclusion in the proxy materials for our 2016 Annual Meeting must follow the procedures prescribed in Rule 14a-8 under the Exchange Act. Under our Bylaws, a shareholder entitled to vote in the election of directors generally may nominate one or more persons for election as directors at a meeting only if written notice of such shareholder's intent to make such nomination or nominations has been received by us in accordance with the delivery methods and other specifications described in our Bylaws. Notice of a nomination of a candidate for election as a director or any other shareholder proposal to be made at the 2016 Annual Meeting (whether or not included in the proxy statement) must be received by June 25, 2016. If a shareholder gives notice of such proposal after such date, proxy holders will be allowed to use their discretionary voting authority to vote the shares they represent as the Board may recommend, which may include a vote against the shareholder proposal when and if the proposal is raised at our 2016 Annual Meeting, then the deadlines are a reasonable time before we begin to print and send proxy materials to our shareholders.

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 (c) 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.

The Nominating and Governance Committee considers any shareholder recommendations of nominees for election to the Board if they comply with the foregoing Bylaws requirements and are accompanied by a comprehensive written resume of the recommended nominee's business experience and background and a consent in writing, signed by the

recommended nominee, that he or she is willing to be considered as a nominee and, if nominated and elected, he or she will serve as a director. Properly communicated shareholder recommendations will be considered in the same manner as recommendations received from other sources. Shareholders should send their written recommendations of nominees or shareholder proposals accompanied by the aforesaid documents to our principal executive offices addressed to: CTI BioPharma Corp., Attention: Secretary, 3101 Western Avenue, Suite 600, Seattle, Washington 98121, U.S.A.

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.

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 THE COMPANY'S

2015 EQUITY INCENTIVE PLAN

Summary

We are asking you to approve a new equity incentive plan, the 2015 Plan. The Board approved the proposed 2015 Plan on July 27, 2015, subject to shareholder approval.

We currently maintain the CTI BioPharma Corp. 2007 Equity Incentive Plan (the "2007 Plan"). As of June 30, 2015, (1) a total of 6,980,000 shares of our common stock were then subject to outstanding options granted under the 2007 Plan, (2) 5,185,194 shares of our common stock were then subject to unvested restricted stock awards and (3) an additional 5,613,350 shares of our common stock were available for new award grants under the 2007 Plan (in the case of the foregoing clauses (2) and (3), the numbers assume that Mr. Seeley had been issued his new hire stock awards on June 30, 2015, rather than on July 27, 2015 in connection with the commencement of his employment, in order to include such awards in this presentation). However, such available shares does not take into account a decrease for the shares of common stock underlying the LTIP RSUs, as discussed below under "Long-Term Performance Awards", and does not take into account the proposed relinquishment of the outstanding Long-Term Performance Awards held by certain non-employee directors pursuant to the Settlement discussed under the heading "Director Compensation". If shareholders approve the 2015 Plan, no new awards will be granted under the 2007 Plan after the Annual Meeting. In addition, if so approved, (i) the number of shares of the Company's common stock that remain available for award grants under the 2007 Plan immediately prior to the Annual Meeting will become available for award grants under the 2015 Plan and (ii) an additional 12,000,000 shares of the Company's common stock will also be made available for award grants under the 2015 Plan. Further, if shareholders approve the 2015 Plan, any shares of common stock subject to outstanding stock options and restricted stock awards under the 2007 Plan that expire, are cancelled 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 2015 Plan.

If shareholders do not approve the 2015 Plan, the Company will continue to have the authority to grant awards under the 2007 Plan. While our authority to grant awards under the 2007 Plan will terminate if shareholders approve the 2015 Plan, the termination of such grant authority will not affect awards then outstanding under the 2007 Plan.

Please see the discussion below under "New Plan Benefits," "Long-Term Performance Awards," "Award Burn Rate" and "Dilution" for detailed information on past award grants under the 2007 Plan and the potential dilutive impact of this Proposal 2.

We believe the proposed 2015 Plan, and the number of shares that would be available for award grants under the 2015 Plan if shareholders approve this Proposal 2, 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 2 is instrumental to our continued success.

Vote Required and Board Recommendation

The Board believes that the adoption of the 2015 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 2015 Plan and thus have a personal interest in the approval of the 2015 Plan.

Approval of the 2015 Plan requires the affirmative vote of the holders of a majority of the shares of our common stock voting on this Proposal 2 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 2.

THE BOARD RECOMMENDS A VOTE

"FOR" THE APPROVAL OF THE 2015 PLAN

Summary Description of the 2015 Plan

The principal terms of the 2015 Plan are summarized below. The following summary is qualified in its entirety by the full text of the 2015 Plan, which appears as Appendix A to this Proxy Statement.

Purpose

The purpose of the 2015 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 will administer the 2015 Plan. A committee may delegate some or all of its authority with respect to the 2015 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 2015 Plan to the Compensation Committee, subject to shareholder approval of the 2015 Plan and except for authority with respect to awards granted or to be granted to our non-employee directors. The Board retained sole authority under the 2015 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 acting body, 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 2 as the "Administrator").

The Administrator has broad authority under the 2015 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;
- \cdot subject to the other provisions of the 2015 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 2015 Plan; and

• to construe and interpret the 2015 Plan, make rules for the administration of the 2015 Plan and make all other determinations necessary or advisable for the administration of the 2015 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.

20

Eligibility

Persons eligible to receive awards under the 2015 Plan include officers or employees of the Company or any of its subsidiaries, directors of the Company and certain consultants and advisors to the Company or any of its subsidiaries. As of June 30, 2015, approximately 146 officers and employees of the Company and its subsidiaries (including all of the Company's named executive officers), each of the Company and its subsidiaries as consultants or advisors, are considered eligible under the 2015 Plan. While consultants and advisors to the Company and our subsidiaries are generally considered eligible under the 2015 Plan to preserve flexibility for the Company, over the last five years we have only granted equity awards to six individuals who, at the time of grant of the awards, were neither employeed 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 2015 Plan equals the sum of: (i) 12,000,000 shares, plus (ii) the number of shares available for additional award grant purposes under the 2007 Plan as of the date of the Annual Meeting and determined immediately prior to the termination of the authority to grant new awards under the 2007 Plan as of the date of the Annual Meeting, plus (iii) the number of any shares subject to stock options or restricted stock awards granted under 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 June 30, 2015, (1) a total of 6,980,000 shares of our common stock were then subject to outstanding options granted under the 2007 Plan, (2) 5,185,194 shares of our common stock were then subject to unvested restricted stock awards and (3) an additional 5,613,350 shares of our common stock were available for new award grants under the 2007 Plan (in the case of the foregoing clauses (2) and (3), the numbers assume that Mr. Seeley had been issued his new hire stock awards on June 30, 2015, rather than on July 27, 2015 in connection with the commencement of his employment, in order to include such awards in this presentation). The 5,613,350 shares available are presented before giving effect to the LTIP RSUs as discussed below under "Long-Term Performance Awards" and before giving effect to the proposed relinquishment of the outstanding Long-Term Performance Awards by certain non-employee directors pursuant to the Settlement. As noted above, no additional awards will be granted under the 2007 Plan if shareholders approve the 2015 Plan.

The following other limits are also contained in the 2015 Plan:

•The maximum number of shares that may be delivered pursuant to options qualified as incentive stock options granted under the 2015 Plan is 12,000,000 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 plan is 2,700,000 shares.

^{• &}quot;Qualified Performance-Based Awards" under Section 5.2 of the 2015 Plan granted to a participant in any one calendar year under the 2015 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, \$650,000 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), 2,700,000 shares.

Except as described in the next sentence, shares that are subject to or underlie awards that expire or for any reason are cancelled or terminated, are forfeited, fail to vest or for any other reason are not paid or delivered under the 2015 Plan will again be available for subsequent awards under the 2015 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 2015 Plan, as well as any shares exchanged or withheld to satisfy the tax withholding obligations related to any award granted under the 2015 Plan, will not be available for subsequent awards under the 2015 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 2015 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 2015 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 2015 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 2015 Plan. The 2015 Plan does not permit the Company to increase the applicable share limits of the 2015 Plan by repurchasing shares of common stock on the market (by using cash received through the exercise of stock options or otherwise).

21

Types of Awards

The 2015 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 2015 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 nonqualified stock option. Incentive stock option benefits are taxed differently from nonqualified stock options, as described under "U.S. Federal Income Tax Consequences of Awards under the 2015 Plan" below. Incentive stock options are also subject to more restrictive terms and are limited in amount by the Internal Revenue Code and the 2015 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 2015 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 2015 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 2015 Plan with performance-based vesting requirements that are intended to qualify as "performance-based" compensation within the meaning of Section 162(m) ("Qualified Performance-Based Awards"). Qualified Performance-Based Awards are in addition to stock options and stock appreciation rights that may also qualify as "performance-based" compensation for Section 162(m) purposes. Qualified Performance-Based Awards may be in the form of restricted stock, performance stock, restricted stock units, and other rights or cash bonus opportunities. While the Administrator may grant awards under the 2015 Plan that qualify (or are intended to qualify) as "performance-based" awards within the meaning of Section 162(m), the 2015 Plan does not require 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 (other than options or stock appreciation rights) will depend on the absolute or relative 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 of solely 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. The performance measurement period with respect to an award may range from three months to ten years. To the extent provided by the Administrator, performance targets (or performance against the targets, as the case may be) will be adjusted to mitigate the unbudgeted impact of material, unusual or nonrecurring gains and losses, accounting changes or other items specified by the Administrator at the time of establishing the goal(s).

22

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 2015 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 2015 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 2015 Plan will not automatically become fully vested pursuant to the provisions of the 2015 Plan so long as such awards are assumed, substituted for or otherwise continued. However, except as described below, if awards then-outstanding under the 2015 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 2015 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.

Transfer Restrictions

Subject to certain exceptions contained in Section 5.7 of the 2015 Plan, awards under the 2015 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 2015 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

Except as expressly provided with respect to the termination of the authority to grant new awards under the 2007 Plan if shareholders approve the 2015 Plan, the 2015 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.

23

Termination of or Changes to the 2015 Plan

The Board may amend or terminate the 2015 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 2015 Plan will terminate effective at the close of business on July 26, 2025, subject to any extension that may be approved by our shareholders. Following the expiration or termination of the 2015 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 2015 Plan amendment) materially and adversely affects the holder.

U.S. Federal Income Tax Consequences of Awards under the 2015 Plan

The U.S. federal income tax consequences of the 2015 Plan under current federal law, which is subject to change, are summarized in the following discussion of the general tax principles applicable to the 2015 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 nonqualified 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 2015 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 2015 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

Except as described below, we have not approved any awards that are conditioned upon shareholder approval of the 2015 Plan, and we are not currently considering any other specific award grants under the 2015 Plan. Future grants under the 2015 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 2015 Plan had been in existence in fiscal year 2014, the Company expects that its award grants for fiscal year 2014 would not have been substantially different from those actually made in that year under the 2007 Plan. For information regarding stock-based awards granted to the Company's named executive officers during fiscal year 2014, see "Executive Compensation".

Our non-employee directors who continue in office after the Annual Meeting will receive a grant of restricted stock units under the 2015 Plan, if such plan is approved at the Annual Meeting, or under the 2007 Plan if not so approved. (See "Director Compensation—Non-Employee Director Compensation Overview" for additional information pertaining to the annual grants under our Director Compensation Policy.) These annual grants are determined based on the closing price of our common stock on the grant date, which will be September 23, 2015. Assuming, for illustrative purposes only, that the price of the common stock used to convert the \$100,000 (and, in the case of the Board chair, \$125,000) restricted stock unit grant date dollar amounts for the non-employee director awards into shares was \$1.95 (which was the price of our common stock on June 30, 2015), the aggregate number of restricted stock units that would be granted to our non-employee directors in connection with the Annual Meeting. The number of shares underlying such restricted stock unit awards in any year will vary based on such factors as the number of non-employee directors and new non-employee directors in the year, and our stock price. The Board may also modify our Director Compensation Policy from time to time.

Effective July 27, 2015, Bruce J. Seeley was appointed the Company's Executive Vice President and Chief Commercial Officer. In connection with his appointment, the Company granted Mr. Seeley the following awards under the 2007 Plan on that date: (i) 300,000 shares of restricted Company common stock scheduled to vest, subject to Mr. Seeley's continued employment, in one-third installments on each of the first, second and third anniversaries of the date of grant of the award, and (ii) a Long-Term Performance Award consisting entirely of LTIP RSUs. Mr. Seeley's Long-Term Performance Award is on the same terms, and as to the same award percentages and performance goals, as the outstanding Long-Term Performance Award held by Matthew Plunkett, Ph.D., the Company's Executive Vice President, Corporate Development, discussed in the "Compensation Discussion and Analysis" below, except that Mr. Seeley did not receive the portion of the Long-Term Performance Award related to the Pacritinib Phase 3 (as defined below) goal. The total award percentage corresponding to Mr. Seeley's Long-Term Performance Award is 1.069% (stated as a percentage of the total number of outstanding shares of our common stock as of the vesting date determined on a non-fully diluted basis).

In our 2014 definitive proxy statement on Schedule 14A under the heading "New Plan Benefits" in Proposal 3, we disclosed that we intended to grant certain restricted stock awards at the beginning of fiscal year 2015 to each of our named executive officers and each of our non-employee directors. Such intended awards were granted to our named executive officers, but have not been granted to our non-employee directors. At this time, we do not know whether such grants to our non-employee directors will, in fact, be made, or what the size or other terms of any such grants would be.

Long-Term Performance Awards

Overview

As described in more detail in the "Compensation Discussion and Analysis" and "Director Compensation" sections below, in each of 2012, 2013 and 2014, each person then serving as a director or officer of the Company has been granted certain performance equity awards (the "Long-Term Performance Awards"), which are payable in fully vested shares of the Company's common stock upon the achievement of the performance goals identified in the "Compensation Discussion and Analysis", subject to the goal's achievement by the applicable deadline and the share limits of the applicable equity plan. A portion of the Long-Term Performance Awards was originally granted in the form of shares of restricted stock (the "LTIP Restricted Stock") and the remaining portion was granted in restricted stock units (the "LTIP RSUs"). While restricted shares have been issued under the 2007 Plan with regard to the LTIP Restricted Stock, no shares have been reserved or set aside under the 2007 Plan for satisfaction of the shares underlying the LTIP RSUs. Rather, in accordance with the terms of the LTIP RSUs, shares will only be issuable under such awards to the extent that sufficient shares are available under the share limits of the applicable equity plan at the time of vesting of the awards. In the event that sufficient shares are not available under the share limits of the applicable equity plan at the time of vesting, the Company may elect to amend the awards to, but is not required to, settle the LTIP RSUs in cash or any other asset. As discussed below, even after taking into account the 12,000,000 additional shares that would become available for award grant purposes if shareholders approve the 2015 Plan, sufficient shares would not be available to satisfy all of the shares underlying the LTIP RSUs if all of the applicable vesting conditions were timely satisfied.

If shareholders approve the 2015 Plan, the outstanding Long-Term Performance Awards will be treated as follows: (i) the terms and conditions of the Long-Term Performance Awards under the 2007 Plan will not change except shares from the 2015 Plan may be used to satisfy payment obligations with respect to any LTIP RSUs that vest as noted below; (ii) the LTIP Restricted Stock will continue to be outstanding under the 2007 Plan (and, if forfeited, the underlying shares would become available for new grants under the 2015 Plan as discussed above under "Authorized Shares; Limits on Awards"); and (iii) if any portion of the outstanding Long-Term Performance Awards vests and the number of shares payable with respect to such vesting event exceeds the corresponding portion of the LTIP Restricted Stock that vest with respect to such event, the additional shares earned under the LTIP RSUs will be satisfied by the Company delivering shares under the 2015 Plan, subject to share availability under the 2015 Plan (i.e., the awards will no longer be constrained by share availability under the 2007 Plan).

As discussed under the heading "Director Compensation" below, we and our directors have entered into a Settlement. The Settlement provides that, in the event of preliminary and final court approval thereof, the Company will cancel the Long-Term Performance Awards previously granted to non-employee directors that included performance-based vesting metrics and as to which the performance goals remained unsatisfied as of May 13, 2015. Because the Settlement remains subject to court approval as of the date of the filing of this Proxy Statement, the disclosures in this Proxy Statement do not give effect to the Settlement except as otherwise noted. If the Settlement is approved and non-employee directors relinquish their respective outstanding Long-Term Performance Awards pursuant thereto, the LTIP Restricted Stock that is so relinquished and reacquired by the Company would be available for new award grants under the 2015 Plan if it is approved by shareholders (or under the 2007 Plan if the 2015 Plan is not approved by shareholders). As no shares have been reserved or set aside under the 2015 Plan if approved by shareholders), a relinquishment of LTIP RSUs (and no such shares will be set aside under the 2015 Plan if approved by shareholders), a relinquishment of LTIP RSUs pursuant to the Settlement will have no impact on the shares available under the respective plan.

Except as otherwise noted in this Proposal 2, the number of shares of our common stock subject to outstanding awards granted under the 2007 Plan at any particular time, the number of shares of our common stock available for new award grants under the 2007 Plan at any particular time, the number of shares of our common stock granted subject to awards under the 2007 Plan over any particular period of time, and the number of shares that have become available for new award grants under the 2007 Plan as a result of cancellations, terminations and forfeitures of 2007 Plan awards is presented in this Proposal 2 by (i) including the impact of any shares of the LTIP Restricted Stock, but (ii) without giving effect to the LTIP RSUs since such amount is dependent upon the number of our shares of common stock issued and outstanding when such awards vest and will be subject to share availability under the applicable equity plan at the time of vesting.

Underlying Shares and Share Shortfall

If one or more of the performance goals under the Long-Term Performance Awards is timely achieved, the number of underlying shares in the aggregate (including the underlying LTIP Restricted Stock and LTIP RSUs) that will ultimately vest with respect to such award will be determined by multiplying (i) an award percentage corresponding to the particular performance goal by (ii) the total number of outstanding shares of our common stock, determined on a non-fully diluted basis, as of the vesting date, subject to the then applicable share limits of (1) the 2007 Plan, in the event the 2015 Plan is not approved at the Annual Meeting pursuant to this Proposal 2 or (2) the 2015 Plan, if such plan is so approved. As of June 30, 2015, applying such formula and assuming the satisfaction of all remaining vesting conditions applicable to the awards and that Mr. Seeley had been issued his new hire stock awards on June 30, 2015 rather than on July 27, 2015 in connection with the commencement of his employment, the total number of shares that would have vested with respect to the Long-Term Performance Awards would have been 23,575,560, comprised of the following:

 \cdot 1,436,014 shares of stock underlying the LTIP Restricted Stock, which would have become fully vested and unrestricted at such time (of which 379,081 shares are subject to LTIP Restricted Stock awards that are proposed to be relinquished pursuant to the Settlement); and

 \cdot 22,139,546 additional shares of stock underlying the LTIP RSUs would have been issuable, subject to share availability under the 2007 Plan (of which 5,460,472 shares are subject to LTIP RSUs that are proposed to be relinquished pursuant to the Settlement).

Such 22,139,546 additional shares exceeded the number of shares available for issuance under the 2007 Plan as of June 30, 2015 by approximately 16,526,196 shares (such deficiency of shares being referred to herein as "LTIP Plan Shortfall"), as only approximately 5,613,350 shares were then available for new award grants under the 2007 Plan. Assuming the Long-Term Performance Awards held by certain non-employee directors that are proposed to be relinquished pursuant to the Settlement had been relinquished as of June 30, 2015, the LTIP Plan Shortfall as of that date would have instead been 10,686,643 shares as of that date. As noted above, the Company may elect to amend the awards to, but is not required to, settle any LTIP Plan Shortfall in cash or any other asset.

The table below shows the following information regarding the Long-Term Performance Awards as to the persons and groups identified below as of June 30, 2015 (and assumes that Mr. Seeley had been issued his new hire stock awards on June 30, 2015 rather than on July 27, 2015 in connection with the commencement of his employment), based on the total number of outstanding shares of our common stock as of such date:

•the total number of shares of our common stock previously issued with respect to Long-Term Performance Awards as a result of the prior vesting of the applicable performance-based vesting condition;

•the number of unvested shares underlying all currently outstanding Long-Term Performance Awards (including those underlying the LTIP Restricted Stock and the LTIP RSUs);

·the number of issued and outstanding shares of LTIP Restricted Stock;

 \cdot number of shares underlying the LTIP RSUs; and

 $\cdot the number of shares representing the LTIP Plan Shortfall.$

26

| | Total Shares Underlyin | Total Shares gUnderlyin | gTotal Shares | Total Shares Underlying |
|---|------------------------------|-------------------------------|------------------|-------------------------------|
| | Previously | Unvested | | nyunvested |
| | Vested | Long-Terr | nUnvested | LTIP RSUs/ |
| | Long-TermPerforman& TIP | | | |
| | | Performance Restricte | | |
| Name and Position | Awards(1 |) Awards | Stock | Shortfall |
| Named Executive Officers: | | | | |
| James A. Bianco, M.D. | 74,463 | 6,938,922 | 583,217 | 6,355,705 |
| Chief Executive Officer and President | | | | |
| Louis A. Bianco | 30,281 | 2,833,648 | 236,858 | 2,596,790 |
| Executive Vice President, Finance and Administration | | | | |
| Jack W. Singer, M.D. | 30,281 | 2,833,648 | 236,858 | 2,596,790 |
| Executive Vice President, Chief Scientific Officer, Interim Chief Medical | l | | | |
| Officer and Global Head of Translational Medicine | | | | |
| Bruce J. Seeley | | 1,928,180 | | 1,928,180 |
| Executive Vice President and Chief Commercial Officer (2) | | | | |
| Matthew Plunkett, Ph.D. | | 2,079,693 | | 2,079,693 |
| Executive Vice President, Corporate Development | | | | |
| Total for All Current Executive Officers, as a group (5 persons) | 135,025 | 16,614,09 | 11,056,933 | 315,557,158 |
| Non-Employee Directors: | | | | |
| John H. Bauer | 22,339 | 898,254 | 58,320 | 839,934 |
| Karen Ignagni (3) | | | | |
| Richard L. Love | 22,339 | 898,254 | 58,320 | 839,934 |
| Mary O. Mundinger, DrPH | 22,339 | 898,254 | 58,320 | 839,934 |
| Phillip M. Nudelman, Ph.D. | 33,756 | 1,348,283 | 87,481 | 1,260,802 |
| Frederick W. Telling, Ph.D. | 22,339 | 898,254 | 58,320 | 839,934 |
| Reed V. Tuckson, M.D. | 22,339 | 898,254 | 58,320 | 839,934 |
| Total for All Current Non-Executive Directors as a Group (7 persons) | 145,451 | 5,839,553 | 379,081 | 5,460,472 |
| All employees, including all current officers who are not executive | | | | |
| officers or directors, as a group | | 1,121,916 | | 1,121,916 |
| Total | 280,476 | 23,575,56 | 01,436,014 | 422,139,546 |
| | | | | |

2007 Plan Shares Available as of 6/30/2015

LTIP Plan Shortfall as of 6/30/2015

(1) These awards vested on June 27, 2012 following the Compensation Committee's certification that the Company had satisfied the applicable performance condition, which was receipt (in May 2012) of the conditional marketing authorization from the European Commission for PIXUVRI as a monotherapy for the treatment of adult patients with multiply relapsed or refractory aggressive non-Hodgkin B-cell lymphomas (the "PIX MAA Authorization").

(2) This table assumes that Mr. Seeley had been issued his award on June 30, 2015, rather than on July 27, 2015 in connection with the commencement of his employment, in order to include such awards in this presentation.

(16,526,196)(4)

5,613,350

- (3)Ms. Ignagni was appointed to the Board effective January 31, 2014 and has not been granted any Long-Term Performance Awards.
- (4) As discussed under the heading "Director Compensation" below, the Settlement provides that, in the event of and following preliminary and final court approval thereof, the applicable non-employee directors will relinquish all of their respective outstanding Long-Term Performance Awards. As of June 30, 2015, 5,839,553 shares were underlying the outstanding Long-Term Performance Awards held by such directors. Assuming such relinquishment contemplated by the Settlement had occurred as of June 30, 2015, the LTIP Plan Shortfall as of that date would have been 10,686,643 shares, rather than 16,526,196 shares.

27

Aggregate Past Grants Under the 2007 Plan

Except as set forth below, as of June 30, 2015, awards covering 31,188,638 shares of our common stock have been granted under the 2007 Plan. Such number of shares, and the information reflected in the table below:

- ·includes shares subject to awards that expired or terminated without having been exercised and paid and became available for new award grants under the 2007 Plan;
- includes the shares underlying the LTIP Restricted Stock (of which 379,081 shares, in the aggregate, are proposed to be relinquished by non-employee directors pursuant to the Settlement); and
- •does not include the shares underlying the LTIP RSUs. Because such shares are excluded, this table should be read in conjunction with the immediately preceding table, which does reflect the combined LTIP Restricted Stock and the LTIP RSUs.

The following table shows information regarding the distribution of awards covering such 31,188,638 shares as of June 30, 2015 among the persons and groups identified below, including option exercises and restricted stock vesting prior to and option and unvested restricted stock holdings as of that date, as well as restricted stock grants that were forfeited prior to that date without being vested or paid.

OTOON ODTIONS

DECEDICATED CALCULATION

| | STOCK OPTIONS | | RESTRICTED STOCK/UNITS | | | |
|--|------------------------|------------------------|-------------------------------|--------------------|----------------------|------|
| | | | Number | | | |
| | Number of | | of | Number | | |
| | Shares | | Shar ðs/ mber | of | Number | |
| | Subjactaber Number of | | Unitsf Shares/Units | | niats | |
| | to of | Shares | Subjectures/ | Outstand | in Sphares/ | |
| | PasShares | Underlying | to Units | and Unve | estendits | |
| | OptAcquire | edOptions as of | PastVested as | s as of | Cancelled | l as |
| | GraontsExer | rcIssene 30, 2015 | Awahuduse 30, | 2 015 e 30, | 2 015 e 30, 2 | 2015 |
| Name and Position | | ExercIsablærci | isable | | | |
| Named Executive Officers: | | | | | | |
| James A. Bianco, M.D. | 500 ,8 44 | 500,741 | 5,74 3,590 ,092 | 21,643,78 | 3 502,521 | |
| Chief Executive Officer and President | | | | | | |
| Louis A. Bianco | 200,477 | 200,4 28 | 1,84 8,089 ,97 | 2555,028 | 203,448 | |
| | | | | | | |
| Executive Vice President, Finance and Administration | — | | | | | |
| Jack W. Singer, M.D. | 200,490 | 200,4 28 | 1,84 8,089 ,97 | 2555,028 | 203,448 | |
| Executive Vice President, Chief Scientific Officer, | | | | | | |
| Interim Chief Medical Officer and Global Head of | | | | | | |
| Translational Medicine | | | | | | |
| Matthew Plunkett, Ph.D. | | | | | | |
| Executive Vice President, Corporate Development | 300 ,0 00 | 300,0 00 | 1,26 91650 56 | 351,503 | | |
| Total for All Named Executive Officers, as a group | | | | | | |
| (4 persons) | 1,2 01 ,811 | 1,201 ,59 7 | 10,7 6,6,95, 69 | 23,105,34 | 2909,417 | |
| Non-Executive Directors: | | | | | | |
| John H. Bauer | 103 ,1 79 | 103,1 79 | 663 ,846 ,184 | 58,320 | 61,312 | |
| Karen Ignagni | | | 66,1 06 ,192 | | | |
| Richard L. Love | 103,180 | 103,1 80 | 663, 542 ,690 | 58,320 | 61,312 | |
| | | | | | | |

| Mary O. Mundinger, DrPH | 103 ,2 03 | 103,1 87 | 663, 543 ,684 | 58,320 | 61,312 |
|--|----------------------|--------------------------|-------------------------------|---------------------|------------|
| Phillip M. Nudelman, Ph.D. | 153 ,2 10 | 153,1 9 4 | 944, 7464 ,695 | 87,481 | 92,278 |
| Frederick W. Telling, Ph.D. | 103,169 | 103,1 69 | 663 ,8 4 4 ,182 | 58,320 | 61,312 |
| Reed V. Tuckson, M.D. | 102 ,2 00 | 102,200 | 599, 593 ,184 | 58,320 | 28,093 |
| Total for All Current Non-Executive Directors, as a | | | | | |
| group (7 persons) | 668 ,1 41 | 668,1 09 | 4,26 3,519 ,81 | 1 379,081 | 365,619 |
| Each other person who has received 5% or more of the | | | | | |
| options, warrants or rights under the 2007 Plan | | | | | |
| All others, including any current officers who are not | | | | | |
| executive officers or directors, as a group | 6,0 96,983 | 1,708, 3,40 1,97 | 778,24 6,337, 36 | 51,400,771 | 12,508,605 |
| Total | 7, 900,933 | 3,578, 3),40 1,97 | 7723,2 24,503 ,80 | 5 8 ,885,194 | 43,783,641 |
| | | | | | |

Award Burn Rate

The following table presents information regarding the Company's net burn rate for the past three complete fiscal years, with average annual net burn rate over such three years being 5.8%. 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 cancelled, 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, LTIP Restricted Stock is included in the year awarded (not in the year in which the applicable vesting conditions are satisfied), and LTIP RSUs are taken into account only to the extent the applicable performance-based vesting condition was satisfied in 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 2012).

| | 2014 | 2013 | 2012 |
|--|-------------|-------------|--------------|
| Options granted | 1,015,000 | 4,351,590 | 178,790 |
| Restricted stock awards granted | 4,426,161 | 6,375,238 | 4,308,118(1) |
| Less: cancelled, terminated or forfeited options and restricted stock awards | (728,520) | (1,307,918) | (945,417) |
| Net shares granted | 4,712,641 | 9,418,910 | 3,541,491 |
| Weighted average basic common shares outstanding | 148,530,629 | 114,195,403 | 58,124,519 |
| Net burn rate (2)(3) | 3.2% | 8.2% | 6.1% |

- (1)Includes 90,771 shares delivered in payment of LTIP RSUs as to which the applicable performance-based vesting condition was satisfied in 2012 and 379,081 shares of LTIP Restricted Stock granted to non-employee directors that are proposed to be relinquished pursuant to the Settlement.
- (2)Net burn rate is equal to (x) divided by (y), where (x) is equal to the sum of total options granted during the fiscal year, plus the total restricted stock awards granted during the fiscal year, minus the total options and restricted stock awards cancelled, 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 weighted average basic common shares outstanding for each respective year. The net burn rate presented in this table differs from the adjusted burn rate calculations disclosed in our 2014 definitive proxy statement on Schedule 14A in connection with the 2007 Plan proposal included in that proxy statement in two key respects: (i) the adjusted burn rate calculation included in our 2014 definitive proxy statement on Schedule 14A applied a multiplier on restricted stock awards and stock unit awards whereas shares subject to such awards are taken into account in this presentation on a one-for-one basis, and (ii) shares subject to LTIP Restricted Stock awards are taken into account in this presentation as described above whereas in the adjusted burn rate calculation included in our 2014 definitive proxy statement on Schedule 14A LTIP Restricted Stock awards were taken into account only in the year in which the applicable performance condition was satisfied.
- (3)For the three-year period ended December 31, 2014, the Company's average annual net burn rate using the methodology described in note (1) above was 5.8%.

Assuming a level of grants consistent with the number of equity-based awards granted during 2014:

•without giving effect to any potential vesting of the LTIP RSUs 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 12,000,000 additional shares requested for the 2015 Plan under this Proposal 2 (together with the approximately 5,913,350 shares that were available for additional award grant purposes under the 2007 Plan as of

June 30, 2015 and that would (to the extent not subject to 2007 Plan awards prior to the Annual Meeting) become available for new award grants under the 2015 Plan as described above) would provide the Company with flexibility to continue to grant equity-based awards under the 2015 Plan through the third quarter of 2018, assuming such grants occur at an equal rate throughout the projected period. The proposed relinquishment of the outstanding Long-Term Performance Awards by the applicable non-employee directors pursuant to the Settlement, if given effect, is not expected to have a material effect on such estimate; and

•if all of the vesting conditions applicable to the Long-Term Performance Awards were satisfied as of June 30, 2015 and the LTIP RSUs as of that date (approximately 22,139,546 shares) were taken into account, it is expected that the 12,000,000 additional shares requested for the 2015 Plan under this Proposal 2 (together with the approximately 5,913,350 shares that were available for additional award grant purposes under the 2007 Plan as of June 30, 2015 and would (to the extent not subject to 2007 Plan awards prior to the Annual Meeting) become available for new award grants under the 2015 Plan as described above) would be used entirely to satisfy only a portion of the LTIP RSUs, even after giving effect to the proposed relinquishment of the outstanding Long-Term Performance Awards by the applicable non-employee directors pursuant to the Settlement. In such instance, not only would the Company not be able to deliver all of the shares covered by the LTIP RSUs, but the Company would also be unable to issue any new awards under the 2015 Plan since all such shares would be consumed by such partial payout of the LTIP RSUs. 29

However, these are only estimates, in the Company's judgment, based on current circumstances. The total number of shares that are awarded under the 2015 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 practices or changes 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 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. Without limiting the generality of the foregoing, we can't predict the extent to which the outstanding vesting conditions applicable to the Long-Term Performance Awards will be satisfied, and hence, cannot predict their impact on shares available for future equity compensation award grants.

The closing market price of our common stock on the NASDAQ Capital Market on June 30, 2015 was \$1.95 per share.

Dilution

The following table shows the total number of shares of our common stock that were (i) subject to unvested restricted stock awards granted under the 2007 Plan, (ii) subject to outstanding stock options granted under the 2007 Plan and (iii) available for new award grants under the 2007 Plan, in each case, as of each of December 31, 2014 and June 30, 2015. In this Proposal 2, 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 Long-Term Performance Awards as detail on those awards is presented separately above. No restricted stock units were, as of the relevant dates below, outstanding other than the LTIP RSUs.

| | December 31, | June 30, |
|--|--------------|-----------|
| | 2014 | 2015(1) |
| Shares subject to unvested restricted stock awards (excluding the LTIP Restricted Stock) | 1,618,401 | 3,749,180 |
| Shares subject to outstanding stock options(2) | 4,918,149 | 6,980,000 |
| Shares available for new award grants(3) | 11,862,366 | 5,613,350 |

(1) This table assumes that Mr. Seeley had been issued his new hire stock awards on June 30, 2015, rather than on July 27, 2015 in connection with the commencement of his employment, in order to include such awards in this presentation.

- (2) The Company's outstanding options generally may not be transferred to third parties for value and do not include dividend equivalent rights.
- (3)As noted above, this table does not include shares underlying the Long-Term Performance Awards. 1,436,014 shares of our common stock were subject to LTIP Restricted Stock awards on each of December 31, 2014 and June

30, 2015 and, if the LTIP RSUs became fully vested as a result of the achievement of the applicable performance conditions on either of those two dates, the number of shares deliverable with respect to such vested LTIP RSUs would have exceeded (and been confined to) the remaining shares available for new award grants. Of the 1,436,014 shares of our common stock subject to LTIP Restricted Stock awards on these dates, 379,081 were subject to LTIP Restricted Stock held by non-employee directors, which shares are proposed to be relinquished pursuant to the Settlement.

To help assess the potential dilutive impact of this Proposal 2, the number of shares of our common stock outstanding in each of the last three fiscal years is as follows: 109,823,748 shares outstanding at the end of fiscal year 2012; 145,508,767 shares outstanding at the end of fiscal year 2013; and 176,761,099 shares outstanding at the end of fiscal year 2014. The number of shares of our common stock outstanding as of June 30, 2015 was 180,372,288. For these purposes, outstanding shares include unvested restricted shares of our common stock awarded and outstanding as of the applicable date.

The closing market price of our common stock on the NASDAQ Capital Market on June 30, 2015 was \$1.95 per share.

Equity Compensation Plan Information

For information concerning our equity compensation plans, please see "Other Information—Equity Compensation Plan Information."

PROPOSAL 3: APPROVAL OF AN AMENDMENT TO THE COMPANY'S 2007 EMPLOYEE STOCK PURCHASE PLAN

Summary

We are asking you to approve an amendment to the ESPP to increase the maximum number of shares of our common stock authorized for issuance under the ESPP by 1,949,167 shares (so that the new share limit under the ESPP would be 2,000,000 shares). The Board approved the proposed share increase on July 27, 2015, subject to shareholder approval.

The Board has determined that it is advisable to increase the maximum number of shares available for issuance under the ESPP in order to help retain and motivate eligible employees and further align their interests with those of our shareholders. As of June 30, 2015, there were 30,995 shares of common stock remaining available for issuance under the ESPP, and the Company had a total of 180,372,288 shares of common stock issued and outstanding. The 1,949,167 additional shares that may be issued under the proposed increase in the ESPP share limit, plus the 30,995 shares that remained available for issuance under the ESPP as of June 30, 2015, equal approximately 1.1% of the Company's total issued and outstanding shares of common stock as of that date.

In the event the shareholders fail to approve the amendment to the ESPP, the ESPP will continue in operation pursuant to its terms with no change to the number of shares authorized for issuance under the ESPP. In those circumstances, we would not be able to issue additional shares under the ESPP beyond the 30,995 shares that remained available for issuance under the ESPP as of June 30, 2015.

Reasons for Approving the Proposal

We believe the proposed amendment would facilitate our ability to continue to utilize the ESPP. The Company believes the ESPP is an important component of its employee compensation package and assists it in attracting and retaining skilled personnel. Since benefits under the ESPP are dependent upon the value of our common stock, the ESPP also increases alignment between participants' interests and the interests of our shareholders. As of June 30, 2015, 137 of the Company's employees are eligible to participate in, and approximately 14% of the Company's employees purchased shares under, the ESPP during the purchase period ending June 30, 2015. As of June 30, 2015, the Company had 138 employees. The essential features of the ESPP are summarized below. The ESPP is intended to be an employee stock purchase plan within the meaning of Section 423 of the Internal Revenue Code.

Currently, the Company limits the number of shares that any one participant can purchase under the ESPP in any one ESPP offering period to 166 shares. Having a share limit of 2,000,000 shares under the ESPP will give us the

flexibility to increase this limit. For new ESPP offering periods that begin after the Annual Meeting, the Company has changed this individual limit from 166 to 5,000 shares per offering period, contingent upon shareholders approving this ESPP proposal, subject to applicable limits under the Internal Revenue Code (as noted below), and subject to the Company's right to change this limit from time to time in the future. We believe that a higher individual share limit under the ESPP will incentivize additional employees to participate in the ESPP and, through increased participation in the ESPP, there will be increased alignment between employees' interests and the interests of our shareholders.

Vote Required and Board of Directors' Recommendation

Approval of the amendment to the ESPP to increase the number of shares authorized for issuance under the plan requires the affirmative vote of the holders of a majority of the shares of common stock voting on this Proposal 3 in person or by proxy at the shareholder 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 AMENDMENT TO THE ESPP

Summary Description of the 2007 Employee Stock Purchase Plan

The principal terms of the ESPP and its operation are summarized below. The following summary is qualified in its entirety by the full text of the ESPP (as proposed to be amended), which appears as Appendix B to this Proxy Statement.

Background and Purpose

The ESPP provides eligible employees with the opportunity to purchase shares of the Company's common stock at a discount through payroll deductions. The purposes of the ESPP are to encourage ownership of the Company's common stock by the Company's employees and to provide additional incentives to the Company's employees to promote the success of the Company's business.

Administration

The ESPP is administered by the Board or by a committee of the Board consisting of not less than two directors who are not employed by the Company or one of its subsidiaries (the "ESPP Committee"). The ESPP Committee determines which, if any, of the Company's affiliates may be participating employers whose employees may participate in the ESPP as of the start of each offering period. The ESPP Committee has authority in its discretion to interpret the ESPP, to prescribe, amend and rescind rules and regulations relating to determining the terms of options to purchase shares granted under the ESPP, and to make all other determinations necessary or advisable for the administration of the ESPP. Any determination of the ESPP Committee with respect to the ESPP is final and binding upon all persons. The ESPP Committee may also adopt rules, procedures, separate offerings or sub-plans applicable to particular subsidiaries or locations.

Shares Available for Issuance

The aggregate number of shares of the Company's common stock that currently may be issued pursuant to the ESPP is 50,833, of which only 30,995 remained available for issuance as of June 30, 2015. If shareholders approve the proposed amendment, this limit would be increased from 50,833 shares to 2,000,000 shares.

Eligibility and Participation

Employees who are employed by the Company (or one of its subsidiaries designated as a "participating employer" in the ESPP) on the first day of any offering period and remain an eligible employee through the end of the offering period and who customarily work more than twenty hours per week (or such lesser number of hours as the ESPP Committee may provide) and more than five months (or such lesser number of months as the ESPP Committee may provide) per calendar year may participate in the ESPP. Participation in the ESPP is voluntary. Subject to the ESPP Committee's authority to designate a "participating employer" from time to time, currently the only "participating employer" under the 2015 Plan is the Company. As required under the Internal Revenue Code, no participant may purchase shares if, immediately after such purchase, the participant would own stock and/or outstanding options to purchase stock comprising 5% or more of the total combined voting power of the Company's stock or of any of the Company's affiliates. In addition and also as required under the Internal Revenue Code, a participant's right to purchase stock under the ESPP may not accrue at a rate that exceeds \$25,000 (determined with respect to the fair market value of the stock at the time such option to purchase shares is granted) in any calendar year in which such right is outstanding at any time.

As of June 30, 2015, 137 of the 138 employees of the Company (including all of the Company's named executive officers) were eligible to participate in the ESPP.

Offering Periods

Shares of stock are offered for purchase on the first business day of each offering period designated by the ESPP Committee. Currently, offering periods under the ESPP are approximately six months long and commence at the beginning of each January and July. The ESPP Committee has the authority to change the timing and duration of the offering periods (provided that each offering period is not less than three months and is not more than twenty-seven months in duration) and to provide that offering periods will consist of one or more "purchase periods," in each case provided that the change is announced prior to the start of the relevant offering period.

Purchase Price

Currently, the purchase price per share of common stock covered by an option granted under the ESPP is 85% of the lower of (i) the fair market value per share of the Company's common stock on the commencement date of the applicable offering period and (ii) the fair market value per share of the Company's common stock on the last business day of the applicable offering period. For purposes of the ESPP, the fair market value of the Company's common stock is generally the closing price of the Company's common stock on The NASDAQ Capital Market on the determination date. The ESPP Committee may change the formula for determining the purchase price for a particular offering period prior to the start of that offering period, except that in no event may the purchase price for an offering period be lower than the lesser of (i) 85% of the fair market value per share of the Company's common stock on the commencement date of the applicable offering period or (ii) 85% of the fair market value per share of the Company's common stock on the commencement date of the applicable offering period or (ii) 85% of the fair market value per share of the Company's common stock on the commencement date of the applicable offering period or (ii) 85% of the fair market value per share of the Company's common stock on the last business day of the applicable offering period.

Payroll Deductions

Employees participating in the ESPP for an offering period may authorize payroll deductions to the ESPP in that offering period in 1% multiples of base salary for each payroll period, up to a maximum of 10% of their base salary (or such different maximum as the ESPP Committee may establish for the particular offering period). An employee may not change the percentage of base salary withheld during an offering period. However, an employee may withdraw from the ESPP during the offering period as described below.

Purchase of Stock

By enrolling in the ESPP for an offering period, an employee is entitled to purchase shares of the Company's common stock on the last day of the offering period. The maximum number of shares that may be purchased by a participating employee during an offering period is determined by dividing the amount collected from the participant through payroll deductions during the offering period by the per share purchase price in effect for that offering termination date, subject to a maximum of 5,000 shares purchasable by any one participant for any one offering period) and further subject to applicable limits under the Internal Revenue Code as noted above. Unless the employee's participation is discontinued prior to such purchase date (for example, because of a termination of the employee's employment with the Company or an election by the employee to withdraw from the ESPP), his or her purchase of the shares will occur automatically on the last day of the offering period at the applicable price.

Withdrawal

Generally, a participant may withdraw from an offering period at any time prior to the last business day before the offering termination date by giving a withdrawal notice to the Company. Any such withdrawal will not affect his or her eligibility to participate in future offering periods. However, once a participant withdraws from a particular offering period, that participant may not participate again in the same offering period. Upon a participant's withdrawal from an offering period, all of the participant's accumulated payroll deductions held by the Company will be paid to the participant in cash without interest.

Termination of Employment

Termination of a participant's employment for any reason, including death, retirement or any other voluntary or involuntary termination, cancels his or her option to purchase shares and participation in the ESPP immediately as to the offering period in which the termination of employment occurs. In such event, the payroll deductions credited to the participant's account will be returned to him or her or, in the case of an employee's death, to the person or persons entitled thereto as provided in the ESPP, in cash without interest.

Restrictions on Transfer

Options under the ESPP may not be assigned, transferred, pledged or otherwise disposed of, except by will, or under the laws of descent and distribution. An option under the ESPP may not be exercised by anyone other than the participant.

Changes in Capitalization

As is customary in incentive plans of this nature, the number of shares reserved under the ESPP, any maximum number of shares a participant may purchase in the offering period in which such event occurs and the number of shares and the price per share in effect under each outstanding option under the ESPP shall be appropriately adjusted for the payment of a stock dividend or any increase or decrease in the number of outstanding shares of the Company's common stock resulting from a split-up or contraction of shares without receipt of any consideration by the Company, in order to prevent the dilution or enlargement of benefits under the ESPP.

Change of Control

In the event of a change of control of the Company, the ESPP Committee shall, in its sole discretion, either (i) provide that shares granted under the ESPP shall be purchased to the extent of each participant's accumulated payroll deductions for the offering period in effect as of a date prior to the change in control established by the ESPP Committee or (ii) arrange with the surviving, continuing, successor or purchasing corporation, as the case may be, that such corporation shall assume the Company's rights and obligations under the ESPP.

Term; Amendment and Termination of the ESPP

No option shall be granted under the ESPP on or after September 27, 2027, but options granted prior to such date may extend beyond such date.

The Board may suspend, terminate or amend the ESPP at any time and from time to time (subject to shareholder consent as may be required by applicable law). No suspension or termination of or amendment to the ESPP may materially adversely affect the rights of a participant with respect to an outstanding option held by the participant as of the date of such termination or amendment without the participant's consent.

No Limit on Other Plans

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

The following is a brief summary of the federal income tax consequences to U.S. taxpayers and the Company with respect to the shares purchased under the ESPP. The 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.

The ESPP, and the right of participants to make purchases thereunder, is intended to qualify under the provisions of Section 423 of the Internal Revenue Code. Under these provisions, no income will be taxable to a participant until the shares purchased under the ESPP are sold or otherwise disposed of. Upon sale or other disposition of the shares, the participant will generally be subject to tax in an amount that depends upon the holding period applicable to such shares. If the shares are sold or otherwise disposed of (including by gift) more than two years after the first day of the particular offering period in which such shares were acquired and more than one year after the actual purchase date of the shares, the participant will recognize ordinary income measured as the lesser of (i) the excess of the fair market value of the shares at the time of such sale or disposition over the purchase price, or (ii) an amount equal to 15% of the fair market value of the shares as of the first day of the applicable offering period in which such shares were acquired. Any additional gain or loss will be treated as long-term capital gain or loss. If the shares are sold or otherwise disposed of (including by gift) before the expiration of either of the aforementioned holding periods, the participant will recognize ordinary income generally measured as the excess of (i) the fair market value of the shares on the date the shares are purchased over (ii) the purchase price. Any additional gain or loss on such sale or disposition will be capital gain or loss, which will be long-term if the shares are held for more than one year. The Company generally is not entitled to a deduction for amounts taxed as ordinary income or capital gain to a participant with respect to shares purchased under the ESPP except to the extent of ordinary income recognized by participants upon a sale or disposition of shares prior to the expiration of the holding periods described above.

Participation in the ESPP

Participation in the ESPP is voluntary and therefore the number of shares an individual employee will purchase cannot be determined in advance. For the six-month offering periods ending in June 2014, December 2014 and June 2015, the number of shares of the Company's common stock purchased under the ESPP was 1,992, 2,490 and 3,154, respectively. However, the Company limited the number of shares that any one employee could purchase in any one of these periods to 166 in light of the relatively low number of shares that we have had available for issuance under the ESPP. Because benefits under the ESPP may change based on any number of variables, including, without limitation, the fair market value of the Company's common stock at various future dates, the number of our employees who elect to participate in the ESPP and the amount of payroll deductions elected by the employees who participate, it is not possible to determine the benefits that will be received by employees if the proposed ESPP amendment is approved by the shareholders. Similarly, the Company does not know how many additional employees may have enrolled, or how many additional shares would have actually been purchased, if the Company had not limited the number of shares that could be purchased to 166 for the six-month offering periods ending in June 2014, December 2014 and June 2015. For new offering periods that begin after the Annual Meeting, the Company has changed the limit on the number of shares that any one participant may purchase in any one offering period from 166 to 5,000 shares, contingent upon shareholders approving this ESPP proposal, and the ESPP Committee has the right (without shareholder approval) to change this limit from time to time. For these reasons, we also can't estimate how long the shares available under the ESPP, if shareholders approve this proposal and taking into account the proposed new 5,000 share limit per participant per offering period, will allow us to continue the ESPP.

The closing market price of our common stock on the NASDAQ Capital Market on June 30, 2015 was \$1.95 per share.

Aggregate Past Purchases Under the 2007 Employee Stock Purchase Plan

From inception of the ESPP through June 30, 2015, an aggregate of 19,838 shares of the Company's common stock had been purchased under the ESPP (as adjusted to reflect certain reverse stock splits occurring since the adoption of the ESPP). None of the Company's executive officers have participated in the ESPP or purchased shares under the ESPP. The Company's non-employee directors are not eligible to participate in the ESPP. No person has received 5% or more of the options or rights granted under the ESPP.

The closing market price of our common stock on the NASDAQ Capital Market on June 30, 2015 was \$1.95 per share.

Equity Compensation Plan Information

For information concerning our equity compensation plans, please see "Other Information—Equity Compensation Plan Information."

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, 2014. The Audit Committee has again approved the appointment of Marcum LLP as our independent auditor for the year ending December 31, 2015, and the Board has further directed that we submit the selection of independent auditor and independent registered public accounting firm for 2015 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 auditor/independent accounting firm 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, 2014 and 2013:

| Services Rendered | 2014 | 2013 |
|-----------------------|------------|------------|
| Audit Fees(1) | \$ 574,000 | \$ 530,000 |
| Audit-Related Fees(2) | | — |
| Tax Fees(3) | | |
| All Other Fees(4) | | |

(1) 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 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.

- (2) 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, 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 or one of its members to whom such authority may from time to time be delegated pre-approves all auditing services and non-audit services to be performed by our independent auditor and the associated fees.

Vote Required and Board Recommendation

Ratification of the selection of Marcum LLP as our independent auditor for the year ending December 31, 2015 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

37

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 John H. Bauer 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 Statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol.1. AU section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T. 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 2014 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 2014 Annual Report for filing with the SEC.

AUDIT COMMITTEE

John H. Bauer (Chair)

Phillip M. Nudelman, Ph.D.

Frederick W. Telling, Ph.D.

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:

- •Executives' bonuses under our annual incentive program are principally based on the achievement of specific performance objectives established early in the fiscal year by the Compensation Committee.
- •Vesting of a significant percentage of executives' equity awards is contingent on the achievement of specific operational and financial performance goals established by the Compensation Committee. These awards and the related performance goals are discussed in detail below.
- •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, 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 the Company's 2015 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. It is expected that the next such vote will occur at the 2016 Annual Meeting.

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: APPROVAL OF THE ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY OR APPROPRIATE, TO SOLICIT ADDITIONAL PROXIES

Summary

If there are insufficient votes at the time of the Annual Meeting to adopt any of Proposals 1 through 5, the Board may in its discretion seek to, if necessary or appropriate, adjourn the Annual Meeting to solicit additional proxies. In that event, you will be asked to vote only upon this Proposal 6 and not on any other proposals. In this Proposal 6, we are asking the shareholders to authorize the holder of any proxy solicited by the Board to vote in favor of adjourning the Annual Meeting. If this Proposal 6 is approved, the Board may in its discretion, if necessary or appropriate, adjourn the Annual Meeting to use the additional time to solicit additional proxies in favor of any of the Proposals. Even if there are a sufficient number of votes at the time of the Annual Meeting to adopt one or more of the Proposals, the Board may in its discretion seek to, if necessary or appropriate, adjourn the Annual Meeting to solicit additional proxies for any of the Proposals for which there are insufficient votes, and the Board may do so without adopting any of the Proposals for which there are sufficient votes at the time of the Annual Meeting.

If it is necessary or appropriate to adjourn the Annual Meeting, no notice of the adjourned meeting is required to be given to shareholders, other than an announcement at the Annual Meeting of the time and place to which the Annual Meeting is adjourned (including publication of a notice of the adjourned meeting in an Italian newspaper), unless the Board fixes a new record date, which it must do if the Annual Meeting is adjourned to a date more than 120 days after the date fixed for the adjourned meeting. If the Board determines it is necessary or appropriate to adjourn the Annual Meeting and the record date for the Annual Meeting is changed because (i) the meeting is adjourned to a date more than 120 days after the date fixed for the adjourned meeting and/or (ii) the Board elects to change the record date, a notice of the adjourned meeting will be given to all shareholders pursuant to applicable U.S. and Italian law. At the adjourned meeting, we may transact any business which might have been transacted at the original meeting.

Vote Required and Board Recommendation

Approval of the adjournment of the Annual Meeting, if necessary or appropriate, to solicit additional proxies, requires the affirmative vote of the holders of a majority of the shares of our common stock voting on this Proposal 6 in person, by telephone or by proxy at the Annual Meeting. Abstentions and any broker non-votes will not be counted in the vote required to approve adjournment of the Annual Meeting, if necessary or appropriate, to solicit additional proxies. If you do not instruct your broker on how to vote the shares in your account for this Proposal 6, brokers will be permitted to exercise their discretionary authority to vote for such proposal.

THE ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY OR

APPROPRIATE, TO SOLICIT ADDITIONAL PROXIES

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Executive Summary

Compensation Process

The Compensation Committee evaluates and approves our executive compensation plans, policies and programs.

Fiscal Year 2014 Business Highlights

During 2014, we were successful in advancing our product candidates in clinical trials and expanding our market reach for our commercial product, PIXUVRI. Select fiscal year 2014 highlights include the following:

- •We received a \$20 million development milestone payment from Baxter in connection with the first treatment dosing of the last patient enrolled in PERSIST-1.
- •Pacritinib was granted Fast Track designation by the FDA for the treatment of intermediate and high risk myelofibrosis, including but not limited to patients with disease-related thrombocytopenia, patients experiencing treatment-emergent thrombocytopenia on other JAK2 therapy or patients who are intolerant to or whose symptoms are sub-optimally managed on other JAK2 therapy.
- •We initiated the PERSIST-2 Phase 3 clinical trial evaluating pacritinib in patients with myelofibrosis whose platelet counts are less than or equal to 100,000 per microlitre.
- •We entered into a license and collaboration agreement with Servier with regard to the development and commercialization of PIXUVRI and received an upfront payment of €14.0 million (or \$17.8 million using the currency exchange rate as of the date we received the funds in October 2014).
- •We acquired worldwide licensed rights to tosedostat, which is currently being evaluated in several Phase 2 cooperative group-sponsored trials and investigator-sponsored trials for acute myeloid leukemia / myelodysplastic syndrome.

Compensation Structure and Emphasis on Pay-for-Performance

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:

Executives' bonuses under our annual incentive program are principally based on the achievement of specific performance objectives established early in the fiscal year by the Compensation Committee.

- •Vesting of a significant percentage of executives' equity awards is contingent on the achievement of specific operational and financial performance goals established by the Compensation Committee. These awards and the related performance goals are discussed in detail below.
- •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, 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 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 our stock price. 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. Specifically, approximately 17% of the value of Dr. Bianco's aggregate fiscal year 2014 compensation (reflected in the Summary Compensation Table included herein) was assured in the form of salary and perquisites/miscellaneous compensation (not at-risk pay), whereas approximately 83% of his total fiscal year 2014 compensation was "at-risk" compensation, comprised of the following components: (i) performance-based cash incentives; (ii) performance-based equity awards (the ultimate value of which is dependent upon the attainment of performance-based vesting criteria, service-based vesting criteria and our stock price); and (iii) time-based equity awards, which we consider at risk both because of time-based vesting requirements and because the value of the awards is ultimately dependent on our stock price at the time of vesting of the awards. For the other named executive officers as a group, approximately 18% of their aggregate fiscal year 2014 compensation was assured, whereas approximately 82% of their total fiscal year 2014 compensation was "at-risk."

Consistent with our executive compensation program's emphasis on pay-for-performance, and as discussed in more detail below, compensation awarded to the named executive officers for fiscal year 2014 reflected both our solid operational performance and the achievement of significant milestones.

Compensation Objectives and Philosophy

We believe that compensation of our named executive officers should encourage creation of shareholder value and achievement of strategic corporate objectives. Our intent is to align the interests of our shareholders and management by integrating compensation with our short-term and long-term corporate strategic and financial objectives. In order to attract and retain the most qualified personnel, we intend to offer a total compensation package that we believe is competitive with those offered by similar companies in the pharmaceutical industries, taking into account relative company size, performance and to a limited degree geographic location as well as individual responsibilities and performance. However, we also believe that it is important to provide executives with performance-based incentives that are tied to key corporate goals critical to our long-term success and viability.

2014 Named Executive Officer Pay Mix

The primary elements of 2014 compensation for the named executive officers included base salaries, annual cash incentives and equity incentives. The principal rationale for each is noted in the following chart:

At Risk orComponentNot At Risk Summary

| Base Salary | Not At Risk | Fixed pay that is not subject to performance risk. Primarily intended to attract and retain highly qualified executives. |
|--|-------------|---|
| Annual Cash Incentive Compensation | At Risk | Annual cash award opportunity that is principally based on corporate performance as measured against pre-established objectives. Individual performance may also be taken into account. Primarily intended to incentivize management to attain corporate objectives. |
| Equity Incentive Compensation | At Risk | Awards with a value determined by reference to our stock price, thus aligning executives' interests with the interests of our shareholders. A significant portion of the executives' equity awards is based on the achievement of pre-established objectives, further enhancing the link between pay and performance. In addition, through service-based vesting requirements for both the performance- and time-based equity awards, the awards serve as a retention incentive. |

Consistent with our performance-based philosophy, 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 being in the form of equity incentive compensation in that it has a value derived from our stock price and also has a significant performance-based vesting component.

43

We also provide the named executive officers with benefits that are available to most of our other employees in the United States, including a 401(k) plan, employee stock purchase plan, health and welfare programs and group life insurance and also with certain perquisites and termination of employment and change in control benefit protections. In general, these benefits, perquisites, and termination of employment and change in control benefit protections are intended to attract and retain highly qualified executives.

Compensation Process; Compensation Consultant

Effective in July 2015, the Compensation Committee has engaged Frederic W. Cook & Co., Inc. to provide compensation consulting services with regard to the compensation of our executive officers and directors. With respect to 2014 compensation determinations, the Compensation Committee did not retain a compensation consultant, as it did not expect to make significant changes to the executive compensation program. The Compensation Committee had retained Milliman, Inc. as a compensation consultant in prior years (most recently in 2013), as disclosed in our prior applicable definitive proxy statements on Schedule 14A. The Compensation Committee has sole authority to hire, retain and terminate the services of an independent compensation consultant to assist in its decision-making process.

For 2014, the Compensation Committee did not set compensation levels benchmarked relative to any specific level or percentile against any peer group data. Except as otherwise noted in this Compensation Discussion and Analysis, the Compensation Committee's executive compensation determinations are subjective and the result of the Compensation Committee's business judgment, which is informed by the experiences of the members of the Compensation Committee, and the analysis and input from executive compensation consultants it retains from time to time, as well as the Compensation Committee's assessment of overall compensation trends and trends specific to the Company's industry.

Differences in compensation levels for our named executive officers are driven by the Compensation Committee's assessment, in its judgment, of each executive's overall responsibilities and contributions, experience and performance history and/or potential for future responsibility and promotion and awareness of compensation differentials for similar positions based on the Compensation Committee's business experience and input from compensation consultants in prior years. The Compensation Committee also considers the recommendations of the Chief Executive Officer with respect to the compensation for each executive other than himself. The Compensation Committee does not assign a specific weight to these factors and none of these factors by itself will compel a particular compensation decision.

As noted above, our Chief Executive Officer makes recommendations to the Compensation Committee regarding the compensation of our executive officers. Our Chief Executive Officer also participates in the executive compensation decision-making process by presenting overall results of the Company's performance and achievement of business objectives and goals from management's perspective, and provides his evaluation of each executive's individual performance. Our Executive Vice President, Finance and Administration, evaluates the financial implications and affordability of the Company's compensation program and provides input regarding the achievement of financial metrics and goals. None of our named executive officers, however, is a member of the Compensation Committee, and

the Compensation Committee has sole and final authority to determine the compensation of our named executive officers.

Base Salaries

The Compensation Committee reviewed the base salaries provided to the named executive officers in fiscal year 2013 and determined, in its judgment that they continued to be appropriate for 2014. Accordingly, each named executive officer's base salary rate for fiscal year 2014 continued to be the same as was in effect at the end of fiscal year 2013.

Annual Cash Incentive Compensation

Size of the Award Opportunity

In addition to not increasing the salaries of the named executive officers, the Compensation Committee also determined, in its judgment, not to increase the named executive officers' maximum bonus opportunity for fiscal year 2014 above the 2013 maximum level. Accordingly, each named executive officer's maximum bonus opportunity for fiscal year 2014 was the same as was in effect for fiscal year 2013. The Compensation Committee determined and, relative to the fiscal year 2013 allocation, reallocated target bonus amounts based on its assessment of the goals that it believed were most important to the Company at the time the goals were set. The target and maximum bonus opportunities for each named executive officer corresponding to the performance objectives established for 2014 are presented in the table below. The determination of these target and maximum bonus levels was inherently subjective, determined by the Compensation Committee in its discretion taking into account its general assessment of each executive's overall responsibilities and contributions and the executive's performance history and/or potential for future responsibility and promotion, the Compensation Committee's assessment of the potential value of the award and its judgment as to the reasonableness of the compensation opportunities provided for the executive's particular position. The Compensation Committee believes that each named executive officer's bonus opportunities were appropriate taking into account the performance that would be required to earn these amounts.

44

Composition of the Award

Annual cash incentives for our named executive officers are designed to reward performance for achieving key corporate goals, which we believe when they are established should, in turn, increase shareholder value. In general, the annual incentive awards for the named executive officers are subject to achievement of performance objectives established by the Compensation Committee for the fiscal year and an evaluation by the Compensation Committee of the contributions made by individual executives during the course of the year, including both realization of performance goals and other notable achievements that may not have been contemplated at the time the original performance goals were established. Although we have adopted the framework for our annual incentive program described below, the Compensation Committee retains discretion under the program to take into account developments in our business and changes in our strategic priorities that occur during the year in determining the amounts to be awarded to our executives. No adjustments were made to the framework for the fiscal year 2014 annual cash incentives after the framework had been adopted and the goals had been set for the year.

45

2014 Cash Incentive Performance Objectives

The Compensation Committee established the 2014 cash incentive program for our named executive officers, associated performance goals for the fiscal year and, as applicable, threshold, target and maximum bonus opportunities for each executive corresponding to those goals. The following three core elements comprised the 2014 cash incentive program, which together comprised each executive's cash incentive opportunity: financial performance; drug development; and individual performance. The total bonus opportunity allocated to a particular element was determined based on the Compensation Committee's view of the relative importance of that element, as well as the executive's position and ability to affect the outcome for the particular goals for that element. As shown in the table below, the Compensation Committee ultimately determined to award cash incentives for the 2014 fiscal year to the named executive officers in the following amounts (expressed as a percentage of such officer's base salary): Dr. Bianco - 95%; Mr. Bianco - 65%; Dr. Singer – 47.5%; and Dr. Plunkett - 67.5%. The following table presents the approximate relative weightings of the various components for the 2014 cash incentives and the total cash incentive amounts awarded:

| | Potential I Percentag | Bonus es(2) | | Compensation Actual Bonus |
|---|--------------------------|-------------------|-------------------|------------------------------|
| Performance Objectives(1) | Threshold | Target | Max1mum | Percentage Achieved/Awarded |
| PIXUVRI Sales Milestone(3) | | | | |
| James A. Bianco, M.D. | N/A | 5% | 10% | 5% |
| Louis A. Bianco | N/A | 5% | 10% | 5% |
| Jack W. Singer, M.D. | N/A | 2.5% | 5% | 2.5% |
| Matthew Plunkett, Ph.D. | N/A | 2.5% | 5% | 2.5% |
| Non-Equity Raise Milestone(4) James A. Bianco, M.D. Louis A. Bianco Jack W. Singer, M.D. | 10.0% 10.0% N/A | 15% 15% N/A | 20% 20% N/A | 20% 20% N/A |
| Matthew Plunkett, Ph.D. | 5.0% | 10% | 15% | 15% |
| Winter Parkett, Ph.D. | 5.070 | 1070 | 10 /0 | 10 /0 |
| CONSOB Reporting Milestone(5) | | | | |
| James A. Bianco, M.D. | N/A | 5% | 5% | 0% |
| Louis A. Bianco | N/A | 5% | 5% | 0% |
| Jack W. Singer, M.D. | N/A | N/A | N/A | N/A |
| Matthew Plunkett, Ph.D. | N/A | N/A | N/A | N/A |
| PIXUVRI Collaboration(6) | | | | |
| James A. Bianco, M.D. | N/A | 25% | 25% | 25% |
| Louis A. Bianco | N/A | 20% | 20% | 20% |
| Jack W. Singer, M.D. | N/A | 15% | 15% | 15% |
| Matthew Plunkett, Ph.D. | N/A | 30% | 30% | 30% |
| | | | | |
| PERSIST-1 Enrollment Milestone(7) | NT (A | 200 | 200 | 20.0 |
| James A. Bianco, M.D. | N/A | 30% | 30% | 30% |

| Edgar Filing: | CTI BIOPHARMA | CORP - Form D |)EF 14A |
|---------------|----------------------|---------------|---------|
| - 3 3 | | | |

| Louis A. Bianco | N/A | 10% | 10% | 10% |
|-----------------------------------|-----|-----|------|-------|
| Jack W. Singer, M.D. | N/A | 20% | 20% | 20% |
| Matthew Plunkett, Ph.D. | N/A | 10% | 10% | 10% |
| | | | | |
| PERSIST-2 Enrollment Milestone(8) |) | | | |
| James A. Bianco, M.D. | N/A | 20% | 20% | 0% |
| Louis A. Bianco | N/A | 5% | 5% | 0% |
| Jack W. Singer, M.D. | N/A | 25% | 25% | 0% |
| Matthew Plunkett, Ph.D. | N/A | 5% | 5% | 0% |
| | | | | |
| Individual Performance(9) | | | | |
| James A. Bianco, M.D. | N/A | 5% | 15% | 15% |
| Louis A. Bianco | N/A | 5% | 10% | 10% |
| Jack W. Singer, M.D. | N/A | 5% | 10% | 10% |
| Matthew Plunkett, Ph.D. | N/A | 5% | 10% | 10% |
| | | | | |
| Total | | | | |
| James A. Bianco, M.D. | | | 125% | 95% |
| Louis A. Bianco | | | 80% | 65% |
| Jack W. Singer, M.D. | | | 75% | 47.5% |
| Matthew Plunkett, Ph.D. | | | 75% | 67.5% |
| , | | | | |
| | | | | |

- (1) The Compensation Committee selected the particular financial measures because they were determined to be key indicators of Company performance, are subject to efficient and reliable tracking and monitoring and are routinely communicated to shareholders. The Compensation Committee selected the particular drug development measures because they were determined to be the key 2014 developmental goals for the Company.
- (2) The incentive opportunity for each component is expressed as a percentage of the executive's base salary, and the relative weightings are intended as guidelines, with the Compensation Committee having final authority to determine weightings and the appropriate final bonus amounts. In some cases, the "target" and "maximum" potential bonus amounts for a particular measure are the same, reflecting that the Compensation Committee determined that this component of the opportunity would be awarded on an "all or nothing" basis, with no ability to under- or over-achieve the particular goal.
- (3) The target bonus level would be achieved if our gross sales for PIXUVRI were at least \$2.5 million in any fiscal quarter in 2014 and the maximum level would be achieved if the break-even point for PIXUVRI was achieved in 2014 ("PIXUVRI Sales Milestone"). (The "break-even" point would be achieved if (i) net sales plus royalties received for PIXUVRI equaled or exceeded (ii) cost of goods sold plus royalties paid for PIXUVRI, plus operational costs (sales and marketing) for PIXUVRI.) Gross sales for PIXUVRI in the fourth quarter were \$2.5 million, although we did not achieve the break-even point for PIXUVRI in 2014. Accordingly, this objective was determined to have been achieved at the target level.
- (4) The threshold bonus level would be achieved if our 2014 non-equity funds raised were at least \$5 million, the target level achieved at \$10 million and the maximum level would be achieved if such funds raised were at least \$15 million ("Non-Equity Raise Milestone"). The upfront payment of \$17.8 million (using the currency exchange rate as of the date we received the funds in October 2014) we received from our September 2014 exclusive license and collaboration agreement with Servier alone exceeded the \$15 million level. Accordingly, this objective was determined to have been achieved at the maximum level.
- (5) The target/maximum award would be achieved if the Company would be able to obtain a determination by CONSOB relieving us of all supplemental reporting obligations beyond the standard requirements applicable to issuers generally ("CONSOB Reporting Milestone"). This objective was determined not to have been achieved in 2014.
- (6) The target/maximum award would be achieved if the Company would be able to consummate a global development and commercialization collaboration whereby the Company retains rights to PIXUVRI in certain European countries and the U.S. ("PIXUVRI Collaboration Milestone"). This objective was determined to have been achieved as a result of the Company's entry into the September 2014 exclusive license and collaboration agreement with Servier.
- (7) The target/maximum award would be achieved if enrollment in the PERSIST-1 Phase 3 clinical trial for pacritinib were to be completed during fiscal year 2014 ("PERSIST-1 Enrollment Milestone"). This objective was determined to have been achieved in 2014.
- (8) The target/maximum award would be achieved if the PERSIST-2 Phase 3 clinical trial for pacritinib reached 75% completion by year-end 2014 ("PERSIST-2 Enrollment Milestone"). This objective was determined not to have been achieved.
- (9) The Compensation Committee determined that, based upon the Compensation Committee's subjective assessment of each executive's individual contributions during the year, he should receive the maximum pre-established amount available under his individual performance element. The key factors in the Compensation Committee's determination were the executives' successes in 2014 in the following areas:
- ·Management of 2014 operational expenses consistent with the Board's expectations.
- •The appreciation of our stock price during 2014 by approximately 18.6%.
- ·In the case of Drs. Bianco and Plunkett, the initiation of analyst coverage by a national bank.
- ·In the case of Drs. Bianco and Plunkett, the Company's acquisition of worldwide licensed rights to tosedostat.
- ·In the case of Dr. Singer, the initiation of certain investigator-sponsored trials for pacritinib and tosedostat.

Equity Incentive Compensation

The Compensation Committee awards equity incentive compensation to our executive officers to further align their interests with those of our shareholders, to provide a retention incentive over the applicable vesting period, and, in the case of equity awards with performance-based vesting requirements, to provide additional incentives to our executive officers to achieve specified corporate goals and strategic objectives. Although we have occasionally granted stock options to executives in certain circumstances in prior years, our current practice is to grant equity incentive awards to the named executive officers in the form of shares of restricted stock or units payable in stock (or payable in a number of shares, as described below, based on our issued and outstanding shares of common stock on the applicable vesting date). These awards link executives' interests to shareholder interests during the entire period the award is outstanding, regardless of stock price volatility.

47

Performance-Based Awards

Overview

In each of 2012, 2013 and 2014, each person then serving as a director or officer of the Company was granted Long-Term Performance Awards, which are payable in fully vested shares of the Company's common stock upon the achievement of certain performance goals identified below, subject to the goal's achievement by the applicable deadline and the share limits of the applicable Company equity plan. On January 30, 2014, the Compensation Committee extended the deadline for completion of the unvested Long-Term Performance Awards from December 31, 2015 to December 31, 2016 because the Compensation Committee believed that the goals continued to be important to the Company's long-term growth and success. In addition to approving such extension, the Compensation Committee also determined to add two new performance goals related to tosedostat as described below. The Compensation Committee determined to add the tosedostat goals to encourage and support the further development of the compound based on the results of ongoing Phase 2 clinical trials. The size of the awards related to the new goals was established by the Compensation Committee, in its judgment, to reflect the importance of the tosedostat goals to the Company balanced with the other goals applicable under the Long-Term Performance Award program and taking into account potential payment values based on the Company's capitalization. The current performance goals for the Long-Term Performance Awards (which, for clarity, exclude the PIX MAA Authorization goal that had been achieved prior to fiscal year 2014), are as follows:

- Completion of a Phase 3 trial for tosedostat that satisfies the primary endpoint set forth in the statistical plan then in effect ("Tosedostat Phase 3").
- · Approval of a new drug application or a marketing authorization application for tosedostat ("Tosedostat Approval").
- Completion of a Phase 3 trial for pacritinib that satisfies the primary endpoint set forth in the statistical plan then in effect ("Pacritinib Phase 3").
- ·Approval of a new drug application or a marketing authorization application for pacritinib ("Pacritinib Approval").
- ·Approval of a new drug application for Opaxio ("Opaxio NDA Approval").
- Achievement of fiscal year sales equal to or greater than \$50,000,000 with respect to any fiscal year (the "\$50M Sales Goal").
- Achievement of fiscal year sales equal to or greater than \$100,000,000 with respect to any fiscal year (the "\$100M Sales Goal").
- ·Achievement of cash flow breakeven for any two consecutive fiscal quarters (the "Cash Flow Breakeven").
- •Achievement of earnings per share in any fiscal year ending equal to or greater than \$0.30 per share of common stock (the "EPS Goal").
- •Achievement of a market capitalization goal of \$1,000,000,000 based on the average of the closing prices of the common stock over a period of five consecutive trading days (the "Market Cap Goal").

As stated above, each such goal is required to be satisfied between the date of grant or the more recent modification date of the applicable award and the deadline of December 31, 2016.

The Compensation Committee believes these awards at the grant levels identified below provide executives an appropriate level of incentives to help achieve these performance goals so as to maximize and restore shareholder value and to remain with us over a multi-year period. The Compensation Committee reviews these awards and the related performance goals annually and takes into account in establishing the performance period for the awards that

the goals may not all be met within the specified period. Setting shorter performance periods gives the Compensation Committee flexibility to assess the goals in light of changes in our strategic priorities and to make changes in the goals and extend the performance period as it deems appropriate.

Size of the Awards and Vesting Conditions

If a performance goal of the Long-Term Performance Awards is timely achieved, the number of underlying shares subject to the award that vest in connection with the attainment of such performance goal will be determined by multiplying (i) the award percentage (determined as set forth below) for that award corresponding to the particular performance goal that is achieved by (ii) the total number of outstanding shares of our common stock as of the vesting date (determined on a non-fully diluted basis), subject to the applicable share limits of our equity incentive plan then in effect. While restricted shares have been issued under our 2007 Plan with regard to the LTIP Restricted Stock, no shares have been reserved or set aside under the 2007 Plan for satisfaction of the shares underlying the LTIP RSUs. Rather, in accordance with the terms of the LTIP RSUs, shares will only be issuable under such awards to the extent that sufficient shares are available under our equity incentive plan at the time of vesting. In the event that insufficient shares are available under our equity incentive plan at the time of vesting, the Company may elect to amend the awards to, but is not required to, settle the Long-Term Performance Awards in cash or any other asset. As discussed in Proposal 2, if shareholders approve the 2015 Plan, shares may be issued under the 2015 Plan to the extent the Long-Term Performance Awards become vested after the Annual Meeting in satisfaction of the Company's obligations under these awards.

The award percentages corresponding to the various performance goals of the Long-Term Performance Awards for each of the named executive officers are set forth in the following table:

| | Performance Goals and Applicable Award Percentages(1) | | | | | | | | | | |
|-----------|---|------------|----------|--------|--------|-----------|--------|--------|------------|------------|-------|
| | | | OPAXIO | \$50M | \$100M | | | Market | | | |
| | Pacritinib | Pacritinib | NDA | Sales | Sales | Cash Flow | EPS | Cap | Tosedostat | Tosedostat | |
| Name | Phase 3 | Approval | Approval | Goal | Goal | Breakeven | Goal | Goal | Phase 3 | Approval | Total |
| James A. | | | | | | | | | | | |
| Bianco, | | | | | | | | | | | |
| M.D. | 0.281% | 0.563% | 0.085% | 0.3% | 0.6% | 0.3% | 0.124% | 0.75% | 0.281% | 0.563% | 3.85% |
| Louis A. | | | | | | | | | | | |
| Bianco | 0.114% | 0.228% | 0.034% | 0.122% | 0.243% | 0.122% | 0.061% | 0.305% | 0.114% | 0.228% | 1.57% |
| Jack W. | | | | | | | | | | | |
| Singer, | | | | | | | | | | | |
| M.D. | 0.114% | 0.228% | 0.034% | 0.122% | 0.243% | 0.122% | 0.061% | 0.305% | 0.114% | 0.228% | 1.57% |
| Matthew | | | | | | | | | | | |
| Plunkett, | | | | | | | | | | | |
| Ph.D. | 0.084% | 0.169% | 0.025% | 0.09% | 0.18% | 0.09% | 0.037% | 0.225% | 0.084% | 0.169% | 1.15% |

(1)Percentages are stated as a percentage of the total number of outstanding shares of our common stock as of the vesting date (determined on a non-fully diluted basis).

A performance goal will not be considered achieved unless and until the Compensation Committee certifies that is has been achieved. If we experience a change in control, and if the award recipient is then still employed by or is providing services to us or one of our subsidiaries, then the award recipient will be entitled to receive the following vested shares, in each case subject to share availability under the applicable equity plan at the time of vesting:

- with respect to any performance goal other than the Market Cap Goal, the full award percentage that was not otherwise achieved before the date of the change in control, as though that performance goal had been fully achieved as of the time of the change in control); and
- •with respect to the Market Cap Goal (to the extent the goal was not otherwise achieved before the date of the change in control), the full number of shares allocated to the Market Cap Goal only if our market capitalization based on the price per share of our common stock in the change in control transaction (or, if there is no such price in the transaction, the closing price of our common stock on the last trading day preceding the date of the change in control) equals or exceeds \$1.0 billion. If our market capitalization is less than \$1.0 billion on the date of the change in control, the recipient will not be entitled to receive or retain any of the shares allocated to the Market Cap Goal.

Nature of the Awards

The Long-Term Performance Awards consist of a combination of restricted stock units (LTIP RSUs) and restricted stock (LTIP Restricted Stock). In approving the Long-Term Performance Awards originally effective in January 2012, the Compensation Committee determined that it would be appropriate to grant a portion of the Long-Term Performance Awards to Dr. Bianco, Mr. Bianco and Dr. Singer in the form of restricted shares issued on the effective date of grant. The Compensation Committee believed, particularly in light of the economic environment at the time, that the link between executives' interests and shareholders' interests would be further enhanced if the executives held restricted shares (as opposed to a right to receive shares only upon the vesting of the awards), as shares (but not units) have voting rights. The LTIP Restricted Stock awarded as to a particular performance goal above will be forfeited back to us should the applicable performance-based vesting requirement described above not be satisfied. Should a performance goal noted above be satisfied, the LTIP RSUs provide for vesting and payment in connection with the attainment of such performance goal of a number of shares of our common stock determined by multiplying (i) the award percentage (determined as set forth above) for that award corresponding to that particular performance goal by (ii) the total number of outstanding shares of our common stock as of the vesting date (determined on a non-fully diluted basis), subject to the applicable share limits of our equity incentive plan then in effect. In order to ensure that the LTIP Restricted Stock awards do not provide the executive the right to receive any shares beyond the payout levels described above, any restricted shares subject to an executive LTIP Restricted Stock award that vest in connection with the achievement of a performance goal will reduce on a share-for-share basis the number of shares that would otherwise have been delivered to that executive under his or her LTIP RSUs upon achievement of that performance goal. In addition and in furtherance of that intent, if the number of shares that would have been delivered under the executive's LTIP RSUs on achievement of a performance goal (before taking the LTIP Restricted Stock awards into account) is less than the number of shares subject to the executive's LTIP Restricted Stock Award that vest on achievement of that performance goal, a number of such restricted shares equal to the difference will be forfeited back to us so that the executive retains no more shares related to that particular performance goal than the number of shares that would have otherwise been deliverable with respect to that goal under the applicable award percentage. All Long-Term Performance Awards granted after the initial January 2012 tranche have been granted solely in the form of LTIP RSUs with no corresponding LTIP Restricted Stock.

Time-Based Restricted Stock Awards

On January 30, 2014, the Compensation Committee also approved awards of time-based restricted stock to each of the Company's named executive officers. Each award vests in three equal installments over approximately fourteen months after the date of grant, subject to the executive's continued employment with the Company through the applicable vesting date. The final tranche of these awards vested on March 21, 2015. The number of shares subject to each award was calculated as a percentage of the Company's total outstanding shares on the grant date, with the percentage for Dr. Bianco being 0.90% and the percentage for each of the other named executive officers being 0.27%. The Compensation Committee also expressed its intent that similar grants of restricted stock awards would be made to each of the named executive officers at the beginning of 2015 at the percentage levels noted above, subject in each case to formal approval by the Compensation Committee. Consistent with the Compensation Committee's expressed intent, such awards were approved by the Compensation Committee in January 2015. The particular award levels and vesting terms for the 2014 and 2015 time-based grants were determined by the Compensation Committee in its judgment to be appropriate to both (i) provide an added retention incentive for the executive over the vesting period and (ii) increase the executives' respective potential ownership interests in the Company, thereby enhancing the alignment of the executives' interests with those of shareholders.

Method for Determination of the Size of the Awards

The grant levels for the equity awards granted to each named executive officer were inherently subjective, determined by the Compensation Committee in its discretion taking into account its general assessment of each executive's overall responsibilities and contributions and the executive's performance history and/or potential for future responsibility and promotion, the Compensation Committee's assessment of the potential value of the award and its judgment as to the reasonableness of the compensation opportunities provided for the executive's particular position. The Compensation Committee believes that each named executive officer's level of equity awards granted was appropriate taking into account, as to the Long-Term Performance Awards, the performance that would be required to satisfy applicable performance-based vesting requirements.

Perquisites and Other Benefits

We maintain executive health programs for the benefit of the named executive officers, and these executives are also entitled to participate in our benefit programs that are available to all of our employees, including our 401(k) and employee stock purchase plan. Certain of our named executive officers are also provided supplemental life insurance benefits, tax preparation and club dues reimbursement, and are reimbursed as a perquisite for certain personal and family travel expenses. In addition, we use a chartered aircraft from time to time for business related travel and, when space was available, certain spouses, other family members and other guests accompanied the named executive officers on such trips. In those cases, there was no additional cost to us of having additional passengers on such flights. The Company may also pay or reimburse an executive for the cost of a chartered aircraft for personal travel when the Company requires the executive to use a chartered aircraft for the travel due to security concerns. Certain executives are also provided with or reimbursed for certain security expenses. The perquisites and other benefits provided by or paid for by us for the named executive officers are identified in the footnotes to the "Summary Compensation Table" below.

The perquisites provided to a particular named executive officer are considered by the Compensation Committee when it makes its subjective assessment of the appropriateness of the executive's overall compensation arrangements.

We provide these perquisites and other benefits as a means of providing additional compensation to our named executive officers to help retain them and, in some cases, to make certain benefits available in a convenient and efficient manner in light of the demands and time constraints imposed on our executives.

Post-Termination and Change in Control Benefits

We have certain severance and change in control arrangements in place with each of our named executive officers. The Compensation Committee believes these agreements are important in attracting and retaining key executive officers and are consistent with competitive practices.

Under these agreements, the executive would be entitled to termination benefits in the event of a termination of the executive's employment by us without cause or by the executive for good reason (in each case, within the meaning of the executives' respective employment agreement). We have determined that it is appropriate to provide each named executive officer with termination benefits under these circumstances in light of his position with us and as part of his overall compensation package, and to motivate him to operate in the best interest of the Company, rather than in a manner potentially self-serving to secure employment. Because we believe that a termination by an executive for good reason (or constructive termination) is conceptually the same as an actual termination by us without cause, we believe it is appropriate to provide termination benefits following such a constructive termination of the executive's employment.

In addition, if we experience a change in control, certain outstanding equity awards will generally either become fully vested or assumed by the successor entity. The Compensation Committee approved these change in control arrangements in order to offset the uncertainty and disruption that a change in control transaction (or potential transaction) would create during such a critical time for the Company.

In January 2015, the Compensation Committee approved revisions to the applicable severance agreements of Mr. Bianco, Dr. Singer and Dr. Plunkett primarily in order to harmonize the terms of these agreements. In the case of Mr. Bianco and Dr. Singer, the revisions included removing a provision under which the executive could voluntarily terminate employment for any reason following a change in control and receive severance benefits (generally referred to as a "walkaway" right) and a reduction in the period for the executive to exercise stock options following certain terminations of employment. (Dr. Bianco's employment agreement and Dr. Plunkett's severance agreement did not, and still do not, include walkaway right provisions.) Other than these changes, the severance benefits for each executive remain the same as in effect prior to the revisions.

For more information regarding these arrangements, including the revisions to these arrangements approved by the Compensation Committee in January 2015, please see "Potential Payments upon Termination or Change in Control" below.

Elimination of "Parachute Payments"

During the past few years, the Compensation Committee has approved arrangements with each of the named executive officers that eliminate the executive's right to be reimbursed for any excise taxes imposed on his termination benefits and any other payments under Sections 280G and 4999 of the Internal Revenue Code (generally referred to as "parachute payments").

Tax Deductibility of Pay

Section 162(m) generally places a limit of \$1,000,000 on the amount of compensation that we may deduct in any one year with respect to compensation provided to our Chief Executive Officer and certain other named executive officers. There is an exception to the \$1,000,000 limitation for performance-based compensation meeting certain requirements. While the Compensation Committee has considered the limitations imposed by Section 162(m), it reserves the right to design programs that recognize a full range of performance criteria important to our success, even where the compensation paid under such programs may not be deductible. The Compensation Committee will continue to assess the tax and other consequences of our executive compensation program as part of its primary objective of ensuring that compensation paid to our named executive officers is reasonable, performance-based and consistent with our goals and the goals of our shareholders.

Risk Considerations

The Compensation Committee has reviewed our compensation programs to determine whether they encourage unnecessary or excessive risk taking and has concluded that they do not. The Compensation Committee believes that the design of our annual cash and equity incentives provides an effective and appropriate mix of incentives to help ensure our performance is focused on long-term shareholder value creation and does not encourage the taking of short-term risks at the expense of long-term results.

Base salaries are fixed in amount and thus do not encourage risk-taking. While the Compensation Committee considers the achievement of specific financial and operating performance goals in determining the cash bonuses to be awarded to executives under our cash incentive program, the Compensation Committee determines the actual amount of each executive's bonus based on multiple Company and individual performance criteria as described above. The amount of such bonuses is also generally capped and represents only a portion of each individual's overall total compensation opportunities, and we also generally have discretion to reduce bonus payments (or pay no bonus) based on individual performance and any other factors determined to be appropriate in the circumstances. Finally, a significant portion of the compensation provided to our executive officers is in the form of equity awards that further align executives' interests with those of shareholders. The Compensation Committee believes that these awards do not encourage unnecessary or excessive risk-taking since the ultimate value of the awards is tied to our stock price. The vesting schedules imposed on the grants also help ensure that executives always have significant value tied to long-term stock price performance. In addition, the vesting of our Long-Term Performance Awards is tied to a number of different performance objectives, so the program is not overly dependent on any one performance metric.

Say-on-Pay Vote

At our annual meeting of shareholders held in May 2014, shareholders had the opportunity to cast an advisory vote on the compensation paid to our named executive officers as disclosed in the proxy statement for that annual meeting. The proposal to approve the executives' compensation was approved by approximately 65% of the total number of

votes actually cast (disregarding abstentions and broker non-votes). The Compensation Committee believes this result affirms shareholders' support of our approach to executive compensation generally, particularly the performance-based nature of the executive compensation program, but the Compensation Committee would like to see a greater level of support for our compensation programs. Accordingly, the Compensation Committee recently adopted an additional measure that it believes reflects best practices in executive compensation generally in eliminating certain "walkaway" rights for the applicable executive officers who had such benefits that would have permitted them to voluntarily terminate employment for any reason following a change in control and receive severance benefits, as described above. 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". The Compensation Committee has also engaged Frederic W. Cook & Co., Inc., compensation consultants, to perform a comprehensive review of the compensation of our executive officers and directors. The Compensation Committee will continue to consider the opinions that shareholders express directly to the Compensation Committee or management and through say-on-pay votes.

Summary

The Compensation Committee believes that our compensation philosophy and programs are designed to foster a performance-oriented culture that aligns employees' interests with those of our shareholders, and as such that the compensation of our executives is both appropriate and responsive to the goal of improving shareholder value.

The following "Compensation Committee Report" and related disclosure shall not be deemed incorporated by reference by any general statement incorporating this Proxy Statement into any filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except to the extent that we specifically incorporate this information by reference, and shall not otherwise be deemed filed under the Exchange Act or the Securities Act.

Compensation Committee Report

The Compensation Committee reviewed this Compensation Discussion and Analysis and discussed its contents with Company's management. Based on this review and discussions, the Compensation Committee has recommended to the Board that this Compensation Discussion and Analysis be included in this Proxy Statement.

Respectfully submitted by the Compensation Committee:

Frederick W. Telling, Ph.D., Chair

Richard L. Love

Mary O. Mundinger, DrPH

Phillip M. Nudelman, Ph.D.

Compensation Committee Interlocks and Insider Participation

The directors listed at the end of the Compensation Committee Report above were each members of the Compensation Committee during all of fiscal year 2014. No director who served on the Compensation Committee during fiscal year 2014 is or has been an executive officer of the Company or had any relationships requiring disclosure by us under the SEC's rules requiring disclosure of certain relationships and related-party transactions. None of our executive officers served as a director or a member of a compensation committee (or other committee serving an equivalent function) of any other entity, any executive officer of which served as a member of the Board or the Compensation Committee during fiscal year 2014.

Summary Compensation Table—Fiscal Years 2012-2014

The following table sets forth information concerning compensation for fiscal years 2012, 2013 and 2014 for services rendered to the Company by the Chief Executive Officer and President, the Executive Vice President, Finance and Administration and the Company's two other executive officers. Collectively, these persons are referred to as the "named executive officers."

| Name and Principal Position | Year | Salary | Bonus | Stock | Option | All Other | Total(\$) |
|-----------------------------|------|--------|---------|--------|--------|--------------|-----------|
| | | (\$) | (\$)(1) | Awards | Awards | Compensation | |

| | | | | (\$)(2)(3) | (\$)(2) | (\$)(4) | |
|------------------------------------|------|---------|---------|------------|---------|---------|-----------|
| James A. Bianco, M.D. | 2014 | 650,000 | 617,500 | 4,937,569 | | 473,270 | 6,678,339 |
| Chief Executive Officer and | 2013 | 650,000 | 682,500 | 1,531,763 | 712,350 | 351,034 | 3,927,647 |
| President(5) | 2012 | 650,000 | 552,500 | 1,318,393 | | 292,643 | 2,813,536 |
| Louis A. Bianco | 2014 | 360,000 | 234,000 | 1,542,615 | | 42,299 | 2,178,914 |
| Executive Vice President, Finance | 2013 | 337,500 | 216,000 | 493,158 | 284,940 | 44,886 | 1,376,484 |
| and Administration | 2012 | 330,000 | 198,500 | 536,147 | | 34,293 | 1,098,940 |
| Jack W. Singer, M.D. | 2014 | 370,000 | 175,750 | 1,542,615 | — | 55,234 | 2,143,599 |
| Executive Vice President, Chief | 2013 | 347,500 | 203,500 | 493,158 | 284,940 | 38,502 | 1,367,600 |
| Scientific Officer, Interim Chief | 2012 | 340,000 | 203,000 | 536,147 | — | 42,579 | 1,121,726 |
| Medical Officer and Global Head of | f | | | | | | |
| Translational Medicine(5) | | | | | | | |
| Matthew Plunkett, Ph.D. | 2014 | 325,000 | 219,375 | 1,481,271 | | 8,339 | 2,033,985 |
| Executive Vice President, | 2013 | 325,000 | 260,000 | 501,854 | 427,410 | 9,119 | 1,523,383 |
| Corporate Development | 2012 | 106,041 | 62,500 | 153,000 | | | 321,541 |

(1)Please see "Compensation Discussion and Analysis—Annual Cash Incentive Compensation" for a description of the 2014 cash incentive program for the named executive officers.

(2) The amounts reported in the "Stock Awards" and "Option Awards" columns reflect the grant date fair value computed in accordance with FASB ASC Topic 718 of the stock awards and option awards, respectively, granted to the Company's named executive officers during the applicable fiscal year, and, with respect to each fiscal year in which a stock award or option award, respectively, was modified, the incremental fair value of the modified award computed in accordance with FASB ASC Topic 718. In the case of awards with performance-based vesting conditions other than market (stock price) based vesting conditions, grant date fair values (and incremental fair values, as the case may be) are calculated for this purpose based upon the outcome (as of the grant date, or, if modified, as of the modification date) of the performance-based condition. The fiscal year 2014 modifications to the Stock Awards held by our named executive officers are described in more detail in the "Grants of Plan-Based Awards—Fiscal Year 2014" table below.

53

These amounts in the "Stock Awards" and "Option Awards" columns do not necessarily correspond to the actual cash value that will be recognized by the named executive officers pursuant to these awards. For a discussion of the assumptions and methodologies used to calculate the amounts reported, please see the discussion of equity awards contained in Note 13 (Share-Based Compensation) to the Company's Consolidated Financial Statements for the fiscal year ended December 31, 2014, included in the Company's 2014 Annual Report filed with the SEC on March 12, 2015.

(3) A portion of the "Stock Awards" compensation for each fiscal year for the named executive officers is the grant date fair value (or, in the case of modified awards, the incremental fair value as of the modification date) of Long-Term Performance Awards that include performance-based vesting conditions and were granted (or modified, as the case may be) in that year. These awards are included in Stock Award compensation for the applicable year based on the probable outcome (as of the grant date, or, if modified, as of the modification date) of the performance-based vesting condition of the award. The following table presents, as to these awards that were granted (or modified, as the case may be) in fiscal year 2014, 2013 or 2012: (i) the grant date fair value (or, in the case of modified awards, the incremental fair value as of the modification date) included in the "Stock Awards" column as to the awards granted (or modified, as the case may be) each year based on the probable outcome (as of the grant date) of the performance-based vesting condition; and (ii) the grant date fair value (or, in the case of modification date) of the performance-based vesting condition; and (ii) the grant date fair value (or, in the case of modified awards, the fair value as of the modification date) of the performance-based vesting condition; and (ii) the grant date fair value (or, in the case of modified awards, the fair value as of the modification date) of the awards granted (or modified, as the case may be) each year assuming the maximum level of performance is achieved (in each case, with the fair value as otherwise determined under applicable accounting rules as noted in footnote (2) above):

| | Aggregate Fair Value – |
|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | Based on |
| | Probable | Maximum | Probable | Maximum | Probable | Maximum |
| | Outcome | Performance | Outcome | Performance | Outcome | Performance |
| Name | (\$) | (\$) | (\$) | (\$) | (\$) | (\$) |
| | 2014 | | 2013 | | 2012 | |
| James A. Bianco, M.D. | 575,099 | 28,310,424 | 315,272 | 3,579,348 | 1,318,393 | 7,472,740 |
| Louis A. Bianco | 233,874 | 11,584,014 | 128,211 | 1,466,288 | 536,147 | 3,061,916 |
| Jack W. Singer, M.D. | 233,874 | 11,584,014 | 128,211 | 1,466,288 | 536,147 | 3,061,916 |
| Matthew Plunkett, Ph.D. | 172,530 | 8,484,383 | 136,907 | 1,073,804 | | |

(4) The following table provides detail on the amounts reported in the "All Other Compensation" column of the table above for each named executive officer:

| | Executive | Life | | Other | |
|-------------------------|-----------|-----------|--------|------------|------------|
| | Health | Insurance | 401(k) | Personal | |
| | Benefits | Premiums | Match | Benefits | |
| Name | (\$) | (\$) | (\$) | (\$)(a) | Total (\$) |
| James A. Bianco, M.D. | 85,305 | 35,741 | | 352,224(b) | 473,270 |
| Louis A. Bianco | 19,814 | 9,532 | 3,900 | 9,053(c) | 42,299 |
| Jack W. Singer, M.D. | 45,649 | | 3,900 | 5,685(d) | 55,234 |
| Matthew Plunkett, Ph.D. | — | — | 3,900 | 4,439(e) | 8,339 |

(a)Certain named executive officers were accompanied by spouses, other family members and other guests on trips using chartered aircraft where the use of the chartered aircraft was for business purposes. In those cases, there was no incremental cost to the Company of having additional passengers on the chartered aircraft, and as a result, no

amount is reflected in this table with respect thereto.

- (b) This amount includes \$36,458 for personal travel, \$179,538 for family members' travel on commercial aircraft, \$2,995 for tax preparation fees, \$10,245 for club membership dues, \$122,628 for security expenses (including \$57,857 for personal travel on an aircraft charter that the Company required for security purposes) and \$360 for miscellaneous expenses.
- (c) This amount includes \$2,657 for tax preparation fees, \$1,813 for security expenses and \$4,583 for club membership dues.
- (d) This amount includes \$4,050 for tax preparation fees, \$948 for club membership dues and \$687 for security expenses.
- (e) This amount includes \$4,439 for family travel expenses.
- (5)All compensation reflected in this table for Dr. Bianco and Dr. Singer was paid in connection with their respective services as officers of the Company and not in connection with their services as directors of the Company. The Company does not pay director compensation to directors who are also employees of the Company.

The foregoing Summary Compensation Table should be read in conjunction with the tables and narrative descriptions that follow. The "Grants of Plan-Based Awards—Fiscal Year 2014" table provides information regarding the incentives awarded to the named executive officers in fiscal year 2014. The "Outstanding Equity Awards at Fiscal 2014 Year-End" and "Option Exercises and Stock Vested—Fiscal Year 2014" tables provide further information on the named executive officers' potential realizable value and actual value realized with respect to their equity awards. The "Potential Payments upon Termination or Change in Control" section provides information on the benefits the named executive officers may be entitled to receive in connection with certain terminations of their employment and/or a change in control of the Company.

Description of Employment Agreements-Cash Compensation

The Company entered into an employment agreement with Dr. Bianco in March 2011, as amended. The employment agreement has a two-year term, with automatic one-year renewals unless either party gives notice that the term will not be extended. The agreement provides that Dr. Bianco will receive an initial annualized base salary of \$650,000, subject to review by the Compensation Committee. Based on its review, the Compensation Committee may increase (but not reduce) the base salary level. The agreement also provides for annual bonuses for Dr. Bianco with a target annual bonus of at least 50% of his base salary and that his annual bonus may be up to 125% of his base salary if actual performance exceeds the target performance goals established by the Compensation Committee for the applicable year. The agreement also provides for Dr. Bianco to participate in the Company's usual benefit programs for senior executives, payment by the Company of disability insurance premiums and premiums for universal life insurance with a coverage amount of not less than \$5,000,000 (up to an aggregate annual limit for such premiums of \$50,000, subject to adjustment), reimbursement of a certain aspect of his additional executive health benefits up to \$30,000 per year, reimbursement of his costs to maintain his medical license and certain other personal benefits.

In July 2012, the Company entered into an offer letter with Dr. Plunkett. The letter does not have a specified term and provides for Dr. Plunkett to receive an initial annualized base salary of \$325,000. Dr. Plunkett is eligible to receive an annual discretionary bonus, with a target bonus of 30% of base salary and a maximum bonus of 75% of base salary, and to participate in the benefit programs offered by the Company.

Provisions of each of the foregoing agreements relating to equity incentive awards, as well as post-termination and change in control benefits, are discussed below under the applicable sections of this Proxy Statement.

Grants of Plan-Based Awards-Fiscal Year 2014

The following table presents information regarding the equity awards granted to the named executive officers in fiscal year 2014.

| Name/Award Type | Grant Date | Estimated I Payouts Under Equ Incentive P Threshold (#) | ity lan Awards | Maximum (#) | All Other Stock Awards: Number of Shares of Stock or Units (#)(3) | All Other Option Awards: Number of Securities Underlying Options (#) | f or Base Price of | Grant Date Fair Value of Stock and Option Awards (\$)(4) |
|--|--------------------|--|--------------------------|----------------|--|---|-----------------------|---|
| James A. Bianco, M.D. | | | | | | | | |
| Performance Award | 1/30/14 | | 420,418(5) | | | | | |
| Performance Award | 1/30/14 | — | 842,331(6) | | | | | |
| Performance Award | 1/30/14 | | 1,122,111(7) |) | | | | 575,099 |
| Restricted Stock | | | | | | | | |
| Award | 1/30/14 | — | | | 1,313,997(8 |) | | 4,362,470 |
| Louis A. Bianco Performance Award Performance Award | 1/30/14 1/30/14 | | 170,561(5) 341,122(6) | | | | | |
| Performance Award | 1/30/14 | | 456,325(7) | | | | | 233,874 |
| Restricted Stock | | | | | | | | |
| Award | 1/30/14 | | | | 394,199(8) | | | 1,308,741 |
| | | | | | | | | |
| Jack W. Singer, M.D. Performance Award Performance Award | 1/30/14 1/30/14 | _ | 170,561(5) 341,122(6) | | | | | |
| Performance Award | 1/30/14 | | 456,325(7) | | | | | 233,874 |
| Restricted Stock | 1/20/14 | | | | 204 100(9) | | | 1 200 741 |
| Award | 1/30/14 | | | | 394,199(8) | | | 1,308,741 |
| Matthew Plunkett, Ph.D. | | | | | | | | |
| Performance Award | 1/30/14 | | 125,676(5) | | | | | |
| Performance Award | 1/30/14 | | 252,849(6) | | | | | 170 520 |
| Performance Award Restricted Stock | 1/30/14 | | 336,633(7) | | | | | 172,530 |
| Award | 1/30/14 | _ | | | 394,199(8) | | | 1,308,741 |

(1) This column reflects the Long-Term Performance Awards that are subject to achievement by the Company of certain performance goals (discussed in the footnotes below) on or before December 31, 2016. If one or more of the performance goals of the Long-Term Performance Awards is timely achieved, the number of underlying shares in the aggregate that will ultimately vest with respect to such award will be determined by multiplying (i) an award

percentage corresponding to the particular performance goal by (ii) the total number of outstanding shares of our common stock, determined on a non-fully diluted basis, as of the vesting date, subject to the applicable share limits of the applicable equity plan at the time of vesting. In the event that sufficient shares are not available under such plan at the time of vesting in cash or any other asset. For each award, the "Target" column reflects the number of shares that would vest or be issued under each award upon timely achievement of each performance goal based on the applicable payout percentages and the number of shares of the Company's common stock issued and outstanding on January 30, 2014, which was the applicable grant date of the awards. However, the actual number of shares issuable for each such award upon any vesting may be different from the number reported in the table, as the actual number will be based on the number of shares of the Company's common stock outstanding at the time of vesting. The named executive officer does not have the right to dispose of the Long-Term Performance Awards or any other shareholder rights with respect to such awards (except that any portion of such awards granted in restricted stock have voting and dividend rights).

(2) As discussed in the "Compensation Discussion and Analysis," in January 2014, the Compensation Committee approved an extension of the deadline for achievement of the underlying performance objectives for the Company's Long-Term Performance Awards from December 31, 2015 to December 31, 2016. Except with regard to the Market Cap Goal, as described in footnote (7) below, such modifications did not result in any grant-date or incremental fair value computed in accordance with FASB ASC Topic 718 and, accordingly, are not reflected in the table.

- (3) The Company's Long-Term Performance Awards are currently subject to the terms and share limits of the 2007 Plan. If the 2015 Plan is approved at the Annual Meeting pursuant to Proposal 2, such awards will remain subject to the terms of the 2007 Plan but, as discussed in Proposal 2, shares may be issued under the 2015 Plan to the extent the Long-Term Performance Awards become vested after the Annual Meeting in satisfaction of the Company's obligations under those awards. The awards listed in the column "All Other Stock Awards: Number of Shares of Stock or Units" are time-based vesting restricted stock awards subject to the terms of the 2007 Plan. The Compensation Committee administers and has authority to interpret the 2007 Plan and the 2015 Plan provisions and make all required determinations thereunder, except the Board has authority to administer, construe, interpret and make determinations under these plans with respect to awards granted or to be granted to the non-employee directors. See "Potential Payments Upon a Termination or Change in Control" below for additional discussion concerning the termination of employment and change in control terms applicable to these awards.
- (4) For a discussion of the assumptions and methodologies used to calculate the amounts reported in this column, please see the discussion of equity awards contained in Note 13 (Share-Based Compensation) to the Company's Consolidated Financial Statements for the fiscal year ended December 31, 2014, included in the Company's 2014 Annual Report filed with the SEC on March 12, 2015. With respect to equity incentive plan awards, this column reflects the fair value of such awards based on the probable outcome (as of the grant date, or, if modified, as of the modification date) of the performance-based conditions applicable to the awards, as determined under generally accepted accounting principles.
- (5) The vesting of these awards is subject to the achievement of the Tosedostat Phase 3 goal.
- (6) The vesting of these awards is subject to the achievement of the Tosedostat Approval goal.
- (7) The vesting of these awards is subject to the achievement of the Market Cap Goal. These awards were originally granted effective January 3, 2012 and were modified in January 2014 as referred to in footnote (2) above to extend the term of the award from December 31, 2015 to December 31, 2016. These entries reflect the number of shares subject to these awards that would have vested if the market capitalization goal had been met on the modification date based on the Company's total number of outstanding shares on the modification date.
- (8) These shares vested in three equal installments on March 21, 2014, September 21, 2014 and March 21, 2015. Prior to the time the shares vested, the named executive officer generally did not have the right to dispose of the restricted shares, but had the right to vote and receive dividends (if any) paid by the Company in respect of the restricted shares.

Outstanding Equity Awards at Fiscal 2014 Year-End

The following table presents information regarding the outstanding equity awards held by each of the Company's named executive officers as of December 31, 2014, including the vesting dates for the portions of these awards that had not vested as of that date.

| | | Option Awa | rds | | | Stock Awards | | | |
|-------------------------|-----------|------------|--|----------|----------------------|---|---|---|---------------------------------|
| | Grant | Underlying | Number of Securities dUnderlying Unexercised Options (#) | Exercise | Option Expiration | Number of Shares or Units of Stock That Have Not Not | Market Value of Shares or Units of Stock That Have Not Vested | Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested | Market or Payout Value |
| Name/Award Type(1) | Date | | Unexercisab | | Date | (#) | (\$)(2) | (#)(3) | (\$)(2) |
| James A. Bianco, | | | | (1) | | | | ()(-) | |
| M.D. | | | | | | | | | |
| Option | 12/14/05 | 208 | | 2,832.00 | 12/14/15 | | | | |
| Option | 01/18/07 | 200 | | 2,040.00 | 01/18/17 | | | | |
| Option | 12/27/07 | 333 | | 567.00 | 12/27/17 | | _ | _ | _ |
| Option | 12/10/13 | 500,000 | | 1.77 | 12/10/23 | | | | |
| Restricted Stock | 01/30/14 | | | | _ | 437,999(4 |)1,033,678 | 3— | |
| Performance | | | | | | | | | |
| Award(5) | 01/03/12 | | | | — | | | 150,247 | 354,583 |
| Performance | | | | | | | | | |
| Award(6) | 01/03/12 | . — | _ | — | — | — | — | 1,325,708 | 3,128,671 |
| Performance | 01/00/110 | | | | | | | 500 000 | 1 051 460 |
| Award(7) | 01/03/12 | , — | | | | | | 530,283 | 1,251,468 |
| Performance | 01/02/12 | | | | | | | 1 060 567 | 12 502 020 |
| Award(8) Performance | 01/03/12 | , — | _ | _ | _ | _ | _ | 1,000,307 | 2,502,938 |
| Award(9) | 01/03/12 | | | | | | | 530 283 | 1,251,468 |
| Performance | 01/03/12 | , | | | | | | 550,285 | 1,231,400 |
| Award(10) | 01/03/12 | | | | | | | 219,184 | 517 274 |
| Performance | 51,05,12 | · | | | | | | 217,10 - 7 | <i>U11,21</i> T |
| Award(11) | 03/21/13 | | | | | | | 496,699 | 1,172,210 |
| | 03/21/13 | | | | _ | _ | _ | 995,165 | 2,348,589 |
| | | | | | | | | | |

| Performance | | | | |
|-------------------|-----------|------|------|-----------------------|
| Award(12) | | | | |
| Performance Award | | | | |
| (13) | 01/30/14— | | | 496,699 1,172,210 |
| Performance Award | | | | |
| (14) | 01/30/14— | | | 995,165 2,348,589 |
| | | | | |
| 58 | | | | |

| | (| Option Awa | rds | | Stock Awards | | | | |
|---------------------------------------|----------|------------|--|----------|----------------------|--|--|---|---------------------------------|
| | Grant | Underlying | Number of Securities dUnderlying Unexercised Options (#) | | Option Expiration | Number of Shares or Units of Stock That Have Not Not | Market Value of Shares or Units of Stock That Have Not Vested | Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested | Market or Payout Value |
| Name/Award Type(1) Louis A. Bianco | | | Unexercisabl | | Date | (#) | (\$)(2) | (#)(3) | (\$)(2) |
| | 07/14/05 | 125 | | 3 336 00 | 07/14/15 | | | | |
| Option Option | 12/14/05 | | | | 12/14/15 | | | | |
| Option | 06/22/06 | | | | 06/22/16 | | | | _ |
| Option | 01/18/07 | | | | 01/18/17 | | | | _ |
| Option | 12/27/07 | | | 2,040.00 | 12/27/17 | _ | | | _ |
| Option | 12/10/13 | | | 1.77 | 12/10/23 | _ | _ | _ | _ |
| Restricted Stock | 01/30/14 | | _ | 1.// | 12/10/23 | 131,400(4 | $310\ 104$ | _ | _ |
| Performance Award(5) | | | _ | _ | _ | | | 60,099 | 141,834 |
| Performance Award(6) | | | | _ | _ | _ | _ | 539,121 | 1,272,326 |
| Performance Award(7) | | | _ | _ | _ | _ | _ | 215,649 | 508,932 |
| Performance Award(8) | | | _ | | | | _ | 429,529 | 1,013,688 |
| Performance Award(9) | | | | | | | | 215,649 | 508,932 |
| Performance | 01100/12 | | | | | | | 210,017 | 500,552 |
| Award(10) | 01/03/12 | | | | | | | 107,824 | 254.465 |
| Performance | | | | | | | | , | , |
| Award(11) | 03/21/13 | | | | | | | 201,508 | 475,559 |
| Performance | | | | | | | | , | , |
| Award(12) | 03/21/13 | | | | | | | 403,015 | 951,115 |
| Performance | | | | | | | | | |
| Award(13) | 01/30/14 | | | | | | | 201,508 | 475,559 |
| Performance | | | | | | | | | |
| Award(14) | 01/30/14 | _ | _ | — | _ | — | — | 403,015 | 951,115 |
| Aequus Restricted | | | | | | | | | |
| Stock | 02/11/11 | _ | _ | | | 50,000(15 |)6,500 | | |
| 59 | | | | | | | | | |

| | (| Option Awa | rds | | | Stock Awards | | | |
|-------------------------|---------------|--------------------------------------|-----------------------------|----------|--------------------|---|--|---|---|
| | | Underlying Unexercised Options | dUnderlying Unexercised | | | Number of Shares or Units of Stock That Have Not | Value of Shares or Units of Stock That Have Not | Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not | Market or Payout Value of Unearned Shares, Units or Rights That Have Not |
| Name/Award Type(1) | Grant Date | (#) Exercisable | Options (#) Unexercisabl | | Expiration Date | Vested (#) | Vested (\$)(2) | Vested (#)(3) | Vested (\$)(2) |
| Jack W. Singer, M.D. | Date | Exercisable | Ullexelcisabl | ۹\$) | Date | (#) | (\$)(2) | (#)(3) | (\$)(2) |
| Option | 07/14/05 | 125 | _ | 3,336.00 | 7/14/15 | _ | | _ | _ |
| Option | 12/14/05 | 100 | | 2,832.00 | 12/14/15 | | | | |
| Option | 06/22/06 | 25 | | 1,704.00 | 6/22/16 | | | | |
| Option | 01/18/07 | 58 | | 2,040.00 | 1/18/17 | — | _ | — | _ |
| Option | 12/27/07 | 120 | _ | 567.00 | 12/27/17 | | — | | |
| Option | 12/10/13 | | | 1.77 | 12/10/23 | — | — | _ | _ |
| Restricted Stock | 01/30/14 | | | — | — | 131,400(4 |)310,104 | — | — |
| Performance | | | | | | | | | |
| Award(5) | 01/03/12 | _ | | — | _ | _ | — | 60,099 | 141,834 |
| Performance | | | | | | | | | |
| Award(6) | 01/03/12 | | | — | — | | — | 539,121 | 1,272,326 |
| Performance | 01/02/12 | | | | | | | 015 (40 | 500 022 |
| Award(7) Performance | 01/03/12 | | _ | | | | | 215,649 | 508,932 |
| Award(8) | 01/03/12 | | | | | | | 429,529 | 1,013,688 |
| Performance | 01/03/12 | | — | | _ | | | 429,329 | 1,015,000 |
| Award(9) | 01/03/12 | | | | | | | 215,649 | 508 932 |
| Performance | 01/02/12 | | | | | | | 210,019 | 500,552 |
| Award(10) | 01/03/12 | | | | _ | | | 107,824 | 254,465 |
| Performance | | | | | | | | , | |
| Award(11) | 03/21/13 | | | | | | | 201,508 | 475,559 |
| Performance | | | | | | | | | |
| Award(12) | 03/21/13 | | | — | | | | 403,015 | 951,115 |
| Performance | | | | | | | | | |
| Award(13) | 01/30/14 | | — | — | — | — | — | 201,508 | 475,559 |
| Performance | 01/00/11 | | | | | | | 100.015 | 051 115 |
| Award(14) | 01/30/14 | | | _ | | | | 403,015 | 951,115 |
| | | | | | | | | | |

| | | Option Awa | rds | | | Stock Awa | ırds | | Equity |
|---|---------------|----------------|--|-------|------------------------------|---|---|---|---|
| Name/Award Type(1) Matthew Plunkett, | Grant Date | Options (#) | Number of Securities dUnderlying Unexercised Options (#) Unexercisabl | Price | Option Expiration Date | Number of Shares or Units of Stock That Have Not Not Vested (#) | Market Value of Shares or Units of Stock That Have Not Vested (\$)(2) | Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)(3) | Incentive Plan Awards: Market or Payout Value |
| Ph.D. | | | | | | | | | |
| Option | 12/10/13 | 300,000 | | 1.77 | 12/10/23 | _ | | | |
| Restricted Stock | 10/16/12 | | | | | 33,333(16) |)78,666 | | |
| Restricted Stock | 01/30/14 | | | | | 131,400(4) | | | |
| Performance Award(5) | 03/21/13 | | | | | _ | | 44,190 | 104,288 |
| Performance Award(6) | | | | | | | | 397,712 | 938,600 |
| Performance Award(7) | 03/21/13 | | | | | | | 159,085 | 375,441 |
| Performance Award(8) | 03/21/13 | _ | | | | | | 318,170 | 750,881 |
| Performance Award(9) | 03/21/13 | | | | | | | 159,085 | 375,441 |
| Performance Award(10) | 03/21/13 | | _ | _ | | _ | _ | 65,402 | 154,349 |
| Performance | | | | | | | | | |
| Award(11) | 03/21/13 | | — | | | | | 148,479 | 350,410 |
| Performance Award(12) | 03/21/13 | _ | _ | | _ | | _ | 298,726 | 704,993 |
| Performance Award(13) | 01/30/14 | _ | _ | _ | _ | | _ | 148,479 | 350,410 |
| Performance Award(14) | 01/30/14 | _ | _ | | _ | _ | _ | 298,726 | 704,993 |

(1)Unless otherwise noted, all information in this table pertains to equity-based securities issued by the Company.

(2) The dollar amounts shown in these columns are determined by multiplying the applicable number of shares or units by \$2.36 (the closing price of the Company's common stock on the last trading day of fiscal year 2014) or, in the case of the shares granted by Aequus, by multiplying the applicable number of shares by \$0.13 (the fair market value of Aequus' common stock as of December 31, 2014).

(3) The entries in this column reflect the Long-Term Performance Awards that are subject to achievement by the Company of certain performance goals (identified in the footnotes below) on or before December 31, 2016.

If one or more of the performance goals of the Long-Term Performance Awards is timely achieved, the number of underlying shares in the aggregate (including the number of shares subject to restricted shares and restricted share units) that will ultimately vest will be determined by multiplying (i) an award percentage corresponding to the

particular performance goal by (ii) the total number of outstanding shares of our common stock, determined on a non-fully diluted basis, as of the vesting date, subject to the applicable share limits of the applicable equity plan at the time of vesting. As of December 31, 2014, 11,862,366 shares of the Company's common stock were available for new award grants under the 2007 Plan (before taking the LTIP RSUs into account). In the event that sufficient shares are not available under the applicable equity plan at the time of vesting, the Company may elect to amend the awards to, but is not required to, settle the Long-Term Performance Awards in cash or any other asset. The table reports the aggregate number of shares that would vest or be issued under each award upon timely achievement of each performance goal based on the applicable payout percentages and the number of shares of the Company's common stock issued and outstanding on December 31, 2014. However, the actual number of shares issuable for each award upon any vesting may be different from the number reported in the table, as the actual number will be based on the number of shares of the Company's common stock outstanding at the time of vesting. (4) These shares vested on March 21, 2015.

- (5) The vesting of these awards is subject to the achievement of the Opaxio NDA Approval goal on or before December 31, 2016.
- (6) The vesting of these awards is subject to the achievement of the Market Cap Goal on or before December 31, 2016.
- (7) The vesting of these awards is subject to the achievement of the \$50M Sales Goal on or before December 31, 2016.
- (8) The vesting of these awards is subject to the achievement of the \$100M Sales Goal on or before December 31,
- 2016.
- (9) The vesting of these awards is subject to achievement of Cash Flow Breakeven goal on or before December 31, 2016.
- (10) The vesting of these awards is subject to achievement of the EPS Goal on or before December 31, 2016.
- (11) The vesting of these awards is subject to the achievement of the Pacritinib Phase 3 goal on or before December 31, 2016.
- (12) The vesting of these awards is subject to the achievement of the Pacritinib Approval on or before December 31, 2016.
- (13) The vesting of these awards is subject to the achievement of the Tosedostat Phase 3 goal on or before December 31, 2016.
- (14) The vesting of these awards is subject to the achievement of the Tosedostat Approval goal on or before December 31, 2016.
- (15) These shares were granted to Mr. Bianco by Aequus and vested on February 11, 2015.
- (16) These shares vest on September 4, 2015, subject to continued service through the applicable vesting date.

Option Exercises and Stock Vested—Fiscal Year 2014

The following table presents information regarding the vesting during fiscal year 2014 of stock awards granted by the Company to the named executive officers. No executive officer exercised any stock options granted by the Company during fiscal year 2014.

| | Option Awar | ds | Stock Awards | | |
|-------------------------|--------------|-------------|--------------|------------|--|
| | Number of | Value | Number of | Value | |
| | Shares | Realized | Shares | Realized | |
| | Acquired on | on Exercise | Acquired on | on Vesting | |
| Name | Exercise (#) | (\$) | Vesting (#) | (\$)(1) | |
| James A. Bianco, M.D. | | | 1,535,342 | 4,982,185 | |
| Louis A. Bianco | | | 460,602 | 1,494,653 | |
| Jack W. Singer, M.D. | | | 460,602 | 1,494,653 | |
| Matthew Plunkett, Ph.D. | | | 493,935 | 1,576,653 | |

(1) The dollar amounts shown in this column for stock awards are determined by multiplying the number of shares or units, as applicable, that vested by the per-share closing price of the Company's common stock on the applicable vesting date.

Potential Payments upon Termination or Change in Control

Termination Benefits

The following describes the termination benefits that may become payable to the named executive officers in connection with a termination of their employment. Each named executive officer's right to receive termination benefits is conditioned upon his executing a release of claims in favor of the Company and complying with certain restrictive covenants. None of the named executive officers is entitled to any tax gross-up payments from the Company.

Dr. Bianco's Termination Benefits

Under Dr. Bianco's employment agreement, if his employment is terminated by the Company without cause or if he resigns for good reason (as the terms "cause" and "good reason" are defined in his agreement), he will receive the following termination benefits:

•cash severance equal to two years of his base salary (paid in twenty-four monthly installments);

reimbursement for up to two years by the Company for premiums paid to continue his health insurance under the Consolidated Omnibus Budget Reconciliation Act ("COBRA") and that of his eligible spouse and dependents;
continued payment for two years by the Company of premiums to maintain life insurance paid for by the Company at the time of his termination; and

• accelerated vesting of all of his then-outstanding and unvested stock-based compensation, with his outstanding, vested stock options to remain exercisable for a period of two years following his termination date. 62

In the event that, immediately prior to, upon or within two years after a change in control of the Company, Dr. Bianco is terminated by the Company without cause or resigns for good reason, he will receive severance in the form of a lump sum payment equal to two years of his base salary, plus an amount equal to the greater of the average of his three prior years' bonuses or thirty percent of his base salary, as well as the payment of his COBRA and life insurance premiums and the treatment of his outstanding equity awards described above.

In the event (i) the Company is required to restate financials due to its material noncompliance with any financial reporting requirement under the U.S. securities laws during any period for which Dr. Bianco was chief executive officer of the Company or (ii) Dr. Bianco acts in a manner that would have constituted cause for his termination had he been employed at the time of such act, Dr. Bianco will not be entitled to any termination benefits that have not been paid, and will be required to repay any portion of the termination benefits that has already been paid.

Other Named Executive Officers' Termination Benefits

As of December 31, 2014, the Company's severance agreements with each of Mr. Bianco, Dr. Singer and Dr. Plunkett provided that, in the event the executive is discharged from employment by the Company without cause (as defined in the agreement) or resigns for good reason (as defined in the agreement, which definition as of December 31, 2014 expressly included, other than for Mr. Plunkett, the occurrence of a change in control of the Company), he will receive the following termination benefits:

·cash severance equal to eighteen months of his base salary;

- additional cash severance equal to the greater of the average of his three prior years' bonuses or thirty percent of his base salary;
- •reimbursement for up to eighteen months by the Company for COBRA premiums to continue his medical coverage and that of his eligible dependents;
- continued payment for up to eighteen months by the Company of premiums to maintain life insurance paid for by the Company at the time of his termination;
- accelerated vesting of all of his then-outstanding and unvested stock-based compensation; and
- in the case of Mr. Bianco and Dr. Singer, his outstanding stock options would remain exercisable for a period of twenty-one months following the termination date, whereas Dr. Plunkett's options would generally remain exercisable for three months following the termination date (although this period could be extended for up to two years if the Company is not then a public company).

In January 2015, the Compensation Committee approved revisions to the applicable severance agreements of Mr. Bianco, Dr. Singer and Dr. Plunkett in order to harmonize the terms of these agreements, including revisions that resulted in the following:

- •A termination for good reason (giving rise to termination benefits) no longer includes the occurrence of a change in control.
- •The post-termination exercise period for options has been reduced to three months following the executive's termination date.
- ·All cash severance is paid in eighteen monthly installments following the executive's termination date.

With the exception of the foregoing revisions, the termination benefits for Mr. Bianco, Dr. Singer and Dr. Plunkett remain the same as in effect as of December 31, 2014 and as described above.

Change in Control Benefits

In the event of a change in control of the Company, the named executive officers are entitled to the following:

All Long-Term Performance Awards granted to the named executive officers would generally vest (subject to certain limitations with respect to the Market Cap Goal as described in the "Compensation Discussion and Analysis").
With respect to Dr. Bianco, all of his other then-outstanding and unvested stock-based compensation will also fully vest, and all of his outstanding stock options will remain exercisable for a period of two years following his termination date. He will also be entitled to the severance protections described above.

•With respect to each of Mr. Bianco, Dr. Singer and Dr. Plunkett, in accordance with the Company's equity incentive plans, all of the executive's other equity-based awards generally would also vest on a change in control of the Company if the awards were to be terminated in connection with the change in control (i.e., accelerated vesting would not be required if the Compensation Committee provided for the assumption, substitution or other continuation of the award following the transaction). If the awards did not become fully vested on the change in control transaction, they would generally become fully vested/exercisable if the award holder's employment was terminated by the successor (other than for misconduct) within twelve months following the change in control (subject to any additional vesting protections provided for pursuant to an applicable agreement). Quantification of Termination and Change in Control Benefits

The termination and change in control benefits under the agreements with our named executive officers are as follows (assuming in each case that the termination of employment and/or change in control that triggered such benefits occurred on December 31, 2014):

| | Benefits in Connection with Termination (Outside of Change in Control) | Benefits in Connection with Change in Control (No Termination) | Benefits in Connection with a Change in Control and Termination |
|---|--|---|--|
| Name | (\$) | (\$) | (\$) |
| James A. Bianco, M.D. Cash Benefits Medical/Life Insurance continuation(3) Equity acceleration(4) Total | 1,300,000(1) 161,237 17,081,678 18,542,915 | 13,953,007 13,953,007 | 1,917,500(2) 161,237 13,953,007 16,031,744 |
| Louis A. Bianco Cash Benefits Medical/Life Insurance continuation(3) Equity acceleration(4) Total | 756,167(1) 58,244 6,863,628 7,678,039 | 5,591,303(5) 5,591,303 | 756,167(2) 58,244 5,591,303 6,405,714 |
| Jack W. Singer, M.D. Cash Benefits Medical/Life Insurance continuation(3) Equity acceleration(4) Total | 749,083(1) 84,176 6,863,628 7,696,887 | 5,591,303(5) 5,591,303 | 749,083(2) 84,176 5,591,303 6,424,562 |
| Matthew Plunkett, Ph.D. Cash Benefits Medical/Life Insurance continuation(3) Equity acceleration(4) Total | 668,125(1) 40,461 5,198,577 5,907,163 | 4,259,977(5) 4,259,977 | 668,125(2) 40,461 4,259,977 4,968,563 |

- (1)For Dr. Bianco, this amount represents two years of his base salary. For each of the other named executive officers, this amount represents the sum of (i) eighteen months of the executive's base salary and (ii) the greater of the executive's average annual bonus for the preceding three years or 30% of the executive's base salary.
- (2) For each of the named executive officers, this amount represents the sum of (i) eighteen months of the executive's base salary (or, in the case of Dr. Bianco, two years of his base salary) and (ii) the greater of the executive's average annual bonus for the preceding three years or 30% of the executive's base salary.
- (3) This amount represents the aggregate estimated cost of the premiums that would be charged to continue health coverage for the applicable period pursuant to COBRA for the executive and his eligible dependents (to the extent that such dependents were receiving health benefits as of December 31, 2014), in each case to the extent provided in the applicable severance agreement. This amount also includes the cost of continued payment by the Company of life insurance premiums for two years for Dr. Bianco and for eighteen months for the other named executive officers.

- (4) This amount represents the intrinsic value of the unvested portions of the executive's awards that would have accelerated in the applicable scenario presented in the table. For restricted stock awards, this value is calculated by multiplying \$2.36 (the closing price of the Company's common stock on the last trading day of fiscal year 2014) by the number of shares subject to the accelerated portion of the award.
- (5) These calculations assume that the Compensation Committee does not provide for the continuation or assumption of the awards following a change in control and that, as a result, the applicable awards are to be terminated and (other than the portion of the Long-Term Performance Awards corresponding to the Market Cap Goal) automatically vested in connection with a change in control pursuant to the Company's equity incentive plan. Since the Market Cap Goal would not have been satisfied on December 31, 2014, that portion of the Long-Term Performance Awards would have terminated without vesting.

DIRECTOR COMPENSATION

Non-Employee Director Compensation Table—Fiscal Year 2014

The following table presents information regarding the compensation earned for fiscal year 2014 by members of the Board who are not also employees of the Company. The compensation paid to Dr. Bianco and Dr. Singer, who are also employed by the Company, for fiscal year 2014 is presented in the Summary Compensation Table and the related explanatory tables. Dr. Bianco and Dr. Singer are not entitled to receive additional compensation for their services as directors.

| | Fees Earned or Paid in Cash | Stock Awards | Option Awards | All Other Compensation | Total |
|--------------------------------|--------------------------------------|-----------------|------------------|---------------------------|-----------|
| Name | (\$)(1) | (\$)(2)(3) | (\$)(2)(3) | (\$)(4) | (\$) |
| John H. Bauer | 88,750 | 642,232 | | | 730,982 |
| Vartan Gregorian (5) | 33,000 | 542,230 | | _ | 575,230 |
| Karen Ignagni (6) | 61,417 | 200,002 | | _ | 261,419 |
| Richard L. Love | 95,250 | 642,232 | | | 737,482 |
| Mary O. Mundinger, DrPH | 132,500 | 642,232 | | | 774,732 |
| Phillip M. Nudelman, Ph.D. | 136,500 | 938,348 | | 20,127 | 1,094,975 |
| Frederick W. Telling, Ph.D.(7) | 109,000 | 642,232 | | | 751,232 |
| Reed V. Tuckson, M.D. | 74,750 | 642,232 | | — | 716,982 |

- (1) The amounts reported in the "Fees Earned or Paid in Cash" column reflect the amounts earned with respect to fiscal year 2014 for the director's retainer and meeting fees.
- (2) No stock options were awarded to the non-employee directors during fiscal year 2014. The amounts reported in the "Stock Awards" column of the table above reflect the grant date fair value determined in accordance with FASB ASC Topic 718 of the stock awards and option awards, respectively, granted to the Company's non-employee directors during fiscal year 2014, provided that, with respect to the amounts included in the "Stock Awards" column that pertain to the modifications of the Long-Term Performance Awards (defined and discussed in "Compensation Discussion and Analysis"), such amounts reflect the applicable incremental fair value determined in accordance with FASB ASC Topic 718. These amounts do not necessarily correspond to the actual cash value that will be recognized by the directors pursuant to the awards. For a discussion of the assumptions and methodologies used to calculate the amounts reported, please see the discussion of equity awards contained in Note 13 (Share-Based Compensation) to the Company's Consolidated Financial Statements for the fiscal year ended December 31, 2014, included in the Company's 2014 Annual Report filed with the SEC on March 12, 2015.

•On January 30, 2014, our Chairman, Dr. Nudelman, was granted 219,000 fully-vested shares with a grant-date fair value of \$727,080, and each of the other non-employee directors (with the exception of Ms. Ignagni, who joined our Board as a new director effective January 31, 2014) was granted 146,000 fully-vested shares with a grant-date fair value of \$484,720.

The January 30, 2014 modifications of the Long-Term Performance Awards (discussed in "Compensation Discussion and Analysis") resulted in a modification date incremental value of \$57,510 (or \$86,265 in the case of Dr. Nudelman's award), determined in accordance with FASB ASC Topic 718.

- •In accordance with the Company's Director Compensation Policy, on January 31, 2014, Ms. Ignagni, was granted an initial award in connection with her appointment to the Board of 31,348 fully-vested shares with a grant-date fair value of \$100,000.
- •In accordance with the Company's Director Compensation Policy, on May 22, 2014, Dr. Nudelman was granted an annual award of 43,555 fully-vested shares with a grant-date fair value of \$125,003, and each of the other non-employee directors was granted an annual award of 34,844 fully-vested shares with a grant-date fair value of \$100,002.
- •Dr. Gregorian's director term expired on May 22, 2014, and his then-outstanding and unvested equity awards terminated on that date. Any recognized expense with respect to the grant date fair value and modification date incremental value relating to his unvested awards reported in the table above was reversed.

(3) The following table presents the number of outstanding and unexercised option awards and the number of shares subject to unvested stock awards held by each of the Company's non-employee directors as of December 31, 2014. This table includes the Long-Term Performance Awards granted to each of the non-employee directors under the Company's equity grant program and described in more detail under "Non-Employee Director Compensation Overview" below. The table below reflects the aggregate number of shares that would be issued upon timely achievement of all of the performance goals based on the applicable payout percentages for these awards and the number of shares of the Company's common stock outstanding on December 31, 2014. However, the actual number of shares issuable for each award upon any vesting may be different from the number reported in the table, as the actual number will be based on the number of shares of the Company's common stock outstanding at the time of vesting.

| | Number of Shares Subject to Outstanding | Number of Unvested Restricted |
|-----------------------------|--|----------------------------------|
| | Options as of | Shares/ Units |
| Director | 12/31/2014 | as of 12/31/2014 |
| John H. Bauer | 103,179 | 880,270 |
| Karen Ignagni | _ | |
| Richard L. Love | 103,180 | 880,270 |
| Mary O. Mundinger, DrPH | 103,195 | 880,270 |
| Phillip M. Nudelman, Ph.D. | 153,202 | 1,321,287 |
| Frederick W. Telling, Ph.D. | 103,169 | 880,270 |
| Reed V. Tuckson, M.D. | 102,200 | 880,270 |

In accordance with the Director Compensation Policy, non-employee director option grants and restricted stock awards, to the extent then outstanding and unvested, become fully vested in the event of a change in control (as such term is defined in the 2007 Plan) that occurs while such non-employee director is a member of the Board (subject to certain limitations with respect to the Market Cap Goal under the Long-Term Performance Awards as described in the "Compensation Discussion and Analysis").

- (4) For Dr. Nudelman, the "All Other Compensation" column includes spousal travel expenses.
- (5) Dr. Gregorian's director term expired on May 22, 2014.
- (6)Ms. Ignagni was appointed to the Board effective January 31, 2014.
- (7)For Dr. Telling, the "Fees Earned or Paid in Cash" column of the table above includes \$10,000 fees for his service on the board of directors of Aequus. Dr. Telling did not receive any other compensation in 2014 for his services to Aequus.

Non-Employee Director Compensation Overview

Equity Grants

New Director and Annual Equity Grant Policy - Effective during 2014

Under the Company's Director Compensation Policy in effect for 2014, the Company's non-employee directors were entitled to the following equity awards: (i) each new non-employee director was entitled to an award of shares of the

Company's common stock in connection with joining the Board, with the number of shares to equal \$100,000 divided by the closing price of the Company's common stock on the date of grant of the award (rounded to the nearest whole share); and (ii) in connection with each annual meeting of shareholders, each continuing non-employee director was entitled to an award of shares of the Company's common stock, with the number of shares to equal \$100,000 (\$125,000 in the case of a non-employee director who is serving as the Chairman of the Board) divided by the closing price of the Company's common stock on the date of grant of the award (rounded to the nearest whole share). In accordance with the policy, each non-employee director received a stock grant in May 2014 as described in note 2 to the table above. The awards were fully vested at grant.

New Director and Annual Equity Grant Policy - Effective July 27, 2015

Under the Company's Director Compensation Policy as amended effective July 27, 2015, the Company's non-employee directors will be entitled to the following equity awards: (i) any new non-employee director will receive a restricted stock unit award in connection with joining the Board, with the number of underlying shares to equal \$100,000 divided by the closing price of the Company's common stock on the date of grant of the award (rounded to the nearest whole share); and (ii) in connection with each annual meeting of shareholders, each continuing non-employee director will be entitled to a restricted stock unit award, with the number of underlying shares to equal \$100,000 (\$125,000 in the case of a non-employee director who is serving as the Chairman of the Board) divided by the closing price of the Company's common stock on the date of grant of the award or, if earlier, immediately prior to the first annual meeting of the Company's shareholders at which one or more members of the Board are to be elected and that occurs in the calendar year after the calendar year in which the award was granted. Restricted stock units that vest will be paid in an equal number of shares of the Company's common stock.

Other Director Equity Awards

The Company's non-employee directors are also eligible to receive discretionary grants of equity awards from time to time. In this regard, in our 2014 definitive proxy statement on Schedule 14A under the heading "New Plan Benefits" in Proposal 3 we disclosed that we intended to grant certain restricted stock awards at the beginning of fiscal year 2015 to each of our named executive officers and each of our non-employee directors. Such intended awards were granted to our named executive officers, but have not been granted to our non-employee directors. At this time, we do not know whether such grants to our non-employee directors will, in fact, be made, or what the size or other terms of any such grants would be.

In each of January 2012, March 2013 and January 2014, Long-Term Performance Awards were granted to each non-employee director in service at such time. In January 2014, the deadline for achievement of the goals was extended from December 31, 2015 to December 31, 2016, with vesting in each case being subject to the director's continued service with the Company. A portion of each non-employee director's Long-Term Performance Awards was granted in the form of restricted stock and a portion was granted in the form of restricted stock and a portion was granted in the form of restricted stock units. If one or more of the performance goals of the Long-Term Performance Awards goals (which are the same as the goals applicable to the Long-Term Performance Awards held by the named executive officers and discussed in the "Compensation Discussion and Analysis") is timely achieved, the number of underlying shares in the aggregate (including the number of shares subject to restricted shares and restricted share units) that will ultimately vest with respect to such award will be determined by multiplying (i) an award percentage corresponding to the particular performance goal by (ii) the total number of outstanding shares of our common stock, determined on a non-fully diluted basis, as of the vesting date (i.e., the date that the Board certifies attainment of the applicable goal), subject to the applicable share limits of the applicable equity plan at the time of vesting. In the event that sufficient shares are not available under such plan at the time of vesting, the Company may elect to amend the awards to, but is not required to, settle the Long-Term Performance Awards in cash or any other asset.

The award percentages corresponding to the various performance goals under the Long-Term Performance Awards for the non-employee directors as of December 31, 2014 are set forth in the following table.

| Performance Goals(1) and Applicable Award Percentages(2) | | | | | | | | | | | |
|--|------------|--------|--------|-------|--------|------------|------|------------|------------|--|--|
| Pacritinib | Pacritinib | Opaxio | Market | \$50M | \$100M | Cash Flow | EPS | Tosedostat | Tosedostat | | |
| Phase 3 | Approval | NDA | Cap | Sales | Sales | Break Even | Goal | | Approval | | |

| | | | Approval | Goal | Goal | Goal | | | Phase 3 Goal(3) | Goal(3) |
|--------------|--------|--------|----------|---------|--------|-------|--------|--------|--------------------|---------|
| Phillip M. | | | | | | | | | | |
| Nudelman, | | | | | | | | | | |
| Ph.D. | 0.071% | 0.141% | 0.013% | 0.1125% | 0.045% | 0.09% | 0.045% | 0.018% | 0.071% | 0.141% |
| Other | | | | | | | | | | |
| Non-Employee | 2 | | | | | | | | | |
| Directors | | | | | | | | | | |
| (excluding | | | | | | | | | | |
| Karen | | | | | | | | | | |
| Ignagni)(4) | 0.047% | 0.094% | 0.008% | 0.075% | 0.03% | 0.06% | 0.03% | 0.013% | 0.047% | 0.094% |
| | | | | | | | | | | |

(1)For a discussion of the particular terms of the goals, see "Compensation Discussion and Analysis—Performance-Based Awards".

(2)Percentages are stated as a percentage of the total number of outstanding shares of our common stock as of the vesting date (determined on a non-fully diluted basis).

(3) These awards relating to tosedostat were granted in January 2014.

(4)Ms. Ignagni joined our Board in January 2014.

As discussed below, however, the non-employee directors have agreed to relinquish their respective outstanding Long-Term Performance Awards if the Settlement is approved by the court.

Cash Compensation Policy

Under the Director Compensation Policy currently in effect and as in effect in fiscal year 2014, non-employee directors are also entitled to cash compensation in the form of annual retainers for service on the Board, an additional annual retainer for chairing certain committees of the Board and additional fees for attending meetings of the Board and meetings of Board committees on which the directors serve, as summarized in the following table:

| | Cash Compensation under Director Compensation Policy Meeting Fees\$ Annual Cash | |
|--|---|-----------|
| | Retainer | |
| | (\$) Board | Committee |
| Board Member, other than Chairman of the Board | 40,00050 | |
| Chairman of the Board | 75, 00,10 50 | _ |
| Audit Committee Chair | 12, 50 0 | 1,250 |
| Non-Chair Audit Committee Members | | 1,250 |
| Compensation Committee Chair | 12, 50 0 | 1,250 |
| Non-Chair Compensation Committee Member | | 1,250 |
| Executive Committee Member | | 1,250 |
| Nominating and Governance Committee Chair | 12, 50 0 | 1,250 |
| Non-Chair Nominating and Governance Committee Member | | 1,250 |

All non-employee directors are also reimbursed for their reasonable expenses incurred in attending Board meetings and committee meetings, as well as other Board-related travel expenses. When a non-employee director travels on Company business, the Company also from time to time pays the costs for the non-employee director's spouse to accompany the director.

The Board may modify our Director Compensation Policy from time to time.

Settlement Entered into in May 2015

On May 13, 2015, the Company (as nominal defendant) and our directors (as individual defendants) entered into a memorandum of understanding to settle the pending lawsuit in King County Superior Court in the State of Washington docketed as Lopez & Gilbert v. Nudelman, et al., Case No. 14-2-18941-9 SEA (the "Settlement"). The Settlement must still be memorialized in a stipulation of settlement to be filed with the court, followed by both preliminary and final approval by the court. The provisions of the Settlement include the following terms subject to court approval:

- •The Company will cancel and the non-employee directors will agree to the rescission of all currently outstanding Company equity awards previously granted to non-employee directors that included performance-based vesting metrics and as to which the performance goals remained unsatisfied as of May 13, 2015;
- •The Company's current non-employee directors will agree to hold (not transfer or sell or encumber in any way) until September 14, 2015 shares of the Company's stock that they currently own and that was awarded to them by the Company during 2011, or at any time after 2011 to the present, and that, at the time of the award by the Company, was fully-vested and unrestricted;
- •The Company will cap the total annual compensation provided by it to its non-employee directors for each of 2015 and 2016. Such annual compensation cap for each non-employee director for each of 2015 and 2016 will be the

greater of (i) \$375,000, plus, as to our Board Chairman, an additional \$100,000, or (ii) the 75th percentile of compensation paid by a group of peer companies to their non-employee directors (and, in the case of our Chairman, the 75th percentile of compensation paid by such peers who have a non-employee director chair of their respective board of directors to such non-employee director chairs). The peer group for these purposes will be selected based on advice from the Company's compensation consultant. For purposes of the compensation cap and the peer group comparison, compensation will be determined and measured on the same basis as presented in the "Total" column of the Non-Employee Director Compensation Table above and will be based on publicly-available information at the applicable time; and

•The Company will implement, if not already implemented, within 90 days following final approval of the Settlement by the court, and maintain until at least the end of calendar year 2017 the following: an annual board discussion of the Company's non-employee director compensation philosophy; the use of a compensation consultant to advise the Compensation Committee on material decisions concerning non-employee director compensation issues and compare the Company's non-employee director compensation program to a group of the Company's peers; the use of plain language in Company's compensation-related public filings; and obtain confirmation from the Company's legal department and outside legal counsel advising on executive compensation matters that any contemplated non-employee director awards do not materially violate the applicable plan or materially fail to comply with applicable law.

OTHER INFORMATION

Security Ownership of Certain Beneficial Owners and Management

The following table provides certain information regarding beneficial ownership of our common stock by each shareholder known by us to be the beneficial owner of more than 5% of the outstanding shares of our common stock as of June 30, 2015, except as otherwise noted in the footnotes to the table. The table also provides certain information as of June 30, 2015 regarding beneficial ownership of our common stock and that of Aequus by (i) each of our directors, (ii) each named executive officer and (iii) all directors and executive officers as a group:

| | CTI BioPharma Corp. | | Aequus Biopharma, Inc. | | | |
|--|---|--|----------------------------|-----------|-------------------------------------|----------------------------|
| Name and Address of Beneficial Owner | Common Stock Number of Shares Beneficially Owned(1) | Shares Subject to Convertible Securities(2) | Percentage Ownership(1) | • | Shares Subject to Convertible | Percentage Ownership(1) |
| 5% or More | | | 1 < / | | | 1 \ / |
| Shareholders: | | | | | | |
| Baxalta Incorporated (3) | 15,673,981 | | 8.69% | — | — | — |
| BlackRock, Inc.(4) | 9,744,234 | | 5.4% | | — | |
| Directors and named executive officers of the Company:(5) | | | | | | |
| John H. Bauer** | 702,190(6) | 103,179 | * | | | |
| James A. Bianco, | 3,814,657(7) | | | | | |
| M.D.** | | 500,741 | 2.11% | 1,000,000 | | 4.38% |
| Louis A. Bianco | 1,125,881(8) | 200,428 | * | 200,000 | | * |
| Karen Ignagni** | 66,192(9) | _ | * | _ | | |
| Richard L. Love** | 647,289(10) | 103,180 | * | | | |
| Mary O. Mundinger, DrPH** | 457,831(11) | 103,187 | * | _ | _ | _ |
| Phillip M. Nudelman, Ph.D.** | 645,368(12) | 153,194 | * | _ | _ | _ |
| Matthew J. Plunkett, Ph.D. | 991,740(13) | 300,000 | * | | _ | _ |
| Jack W. Singer, M.D.** | 1,491,347(14) | 200,428 | * | 1,000,000 | | 4.38% |
| Frederick W. Telling, Ph.D.** | 539,181(15) | 103,169 | * | 300,000 | _ | 1.31% |
| Reed V. Tuckson, M.D.** | 673,706(16) | 102,200 | * | _ | _ | _ |
| | 11,155,382(17)(18) | 1,869,706 | 6.12% | 2,500,000 | | 10.94% |

All directors and executive officers as a group (11 persons)

*Less than 1%.

**Denotes director of the Company.

(1)Beneficial ownership generally includes voting or investment power with respect to securities, and percentage ownership is calculated based on 180,372,288 shares of our common stock outstanding as of June 30, 2015 and 22,850,000 shares of Aequus' common stock outstanding as of June 30, 2015. This table is based upon information supplied by officers, directors and other investors including, as to our common stock, information from Schedules 13D, 13G and 13F and Forms 3 and 4 filed with the SEC. Shares of common stock subject to options, warrants or other securities convertible into common stock that are currently exercisable or convertible, or exercisable or convertible within sixty days of June 30, 2015 are deemed outstanding for computing the percentage of the person holding the option, warrant or convertible security but are not deemed outstanding for computing the percentage of any other person. Except as indicated in the footnotes to this table and pursuant to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of stock beneficially owned.

(2) Shares subject to convertible securities included in this column reflect any options, warrants and convertible debt held by the holder exercisable or convertible within sixty days after June 30, 2015. These shares are also included in the column titled "Number of Shares Beneficially Owned."

- (3) Beneficial ownership is as of April 30, 2015 and is based on information contained in the Schedule 13G filed with the SEC on May 1, 2015. The Schedule 13G states that (i) Baxalta Incorporated ("Baxalta") has shared voting and dispositive power over 15,673,981 shares of our common stock, and (ii) Baxalta GmbH has shared voting and dispositive power over 15,673,981 shares of our common stock. In connection with the spin-off by Baxter International Inc. of Baxalta Incorporated, the reported securities were transferred from Baxter Healthcare SA, an indirectly wholly-owned subsidiary of Baxter International Inc. to Baxalta GmbH, which at the time was also an indirect wholly-owned subsidiary of Baxter International Inc. The total 15,673,981 shares of our common stock beneficially owned by Baxalta Incorporated and Baxalta GmbH represents shares of our common stock initially issued by us to Baxter Healthcare SA upon the conversion of 30,000 shares of the Company's Series 19 Preferred Stock acquired by Baxter International Inc., as the ultimate parent of Baxter Healthcare SA, may be deemed to indirectly beneficially own such shares. The address of Baxalta GmbH is Thurgauerstrasse 130, Glattpark (Opfikon), Switzerland 8152. The address of Baxalta Incorporated is One Baxter Parkway, Deerfield, Illinois 60015, U.S.A.
- (4) Beneficial ownership is as of December 31, 2014 and is based on information contained in the Schedule 13G/A Amendment No. 1 filed with the SEC on February 2, 2015 by BlackRock, Inc. The Schedule 13G/A states that Blackrock, Inc. has sole voting power over 9,470,717 shares of our common stock and sole dispositive power over 9,744,234 shares of our common stock. The address of BlackRock, Inc. is 55 East 52nd Street, New York, New York 10022, U.S.A.
- (5) The address of our current directors and executive officers listed is 3101 Western Avenue, Suite 600, Seattle, Washington 98121, U.S.A.
- (6)Number of shares beneficially owned includes 58,320 shares of unvested LTIP Restricted Stock, which have contingent performance-based vesting terms and will vest based on the achievement of certain performance goals, and does not include the LTIP RSUs.
- (7)Number of shares beneficially owned includes 583,217 shares of unvested LTIP Restricted Stock which have contingent vesting terms and will vest based on the achievement of certain performance goals and 1,060,566 shares of other unvested restricted stock. Such number does not include the LTIP RSUs.
- (8)Number of shares beneficially owned includes 236,858 shares of unvested LTIP Restricted Stock, which have contingent vesting terms and will vest based on the achievement of certain performance goals, and 318,170 shares of other unvested restricted stock. Such number does not include the LTIP RSUs. Includes 37 shares held by Mr. Bianco in trust for his children.
- (9)Ms. Ignagni was appointed to the Board effective January 31, 2014.
- (10)Number of shares beneficially owned includes 58,320 shares of unvested LTIP Restricted Stock which have contingent vesting terms and will vest based on the achievement of certain performance goals, and does not include the LTIP RSUs.
- (11)Number of shares beneficially owned includes 58,320 shares of unvested LTIP Restricted Stock which have contingent vesting terms and will vest based on the achievement of certain performance goals, and does not include the LTIP RSUs.
- (12)Number of shares beneficially owned includes 87,481 shares of unvested LTIP Restricted Stock which have contingent vesting terms and will vest based on the achievement of certain performance goals, and does not include the LTIP RSUs.
- (13)Number of shares beneficially owned includes 351,503 shares of unvested restricted stock and does not include the LTIP RSUs.
- (14)Number of shares beneficially owned includes 236,858 shares of unvested LTIP Restricted Stock which have contingent vesting terms and will vest based on the achievement of certain performance goals and 318,170 shares of other unvested restricted stock. Such number does not include the LTIP RSUs.
- (15)Number of shares beneficially owned includes 58,320 shares of unvested LTIP Restricted Stock which have contingent vesting terms and will vest based on the achievement of certain performance goals, and does not include the LTIP RSUs.

- (16)Number of shares beneficially owned includes 58,320 shares of unvested LTIP Restricted Stock which have contingent vesting terms and will vest based on the achievement of certain performance goals, and does not include the LTIP RSUs.
- (17)Number of shares beneficially owned includes (i) 1,436,014 shares of unvested LTIP Restricted Stock subject to performance-based vesting conditions and (ii) 2,048,409 shares of other unvested restricted stock for all directors and executive officers as a group. Such number does not include the LTIP RSUs.
- (18)Effective July 27, 2015, Bruce J. Seeley was appointed to serve as our Executive Vice President and Chief Commercial Officer and was granted 300,000 shares of restricted stock. Such shares will vest over a three year period.

The LTIP Restricted Stock and the LTIP RSUs held by the applicable non-employee directors and referenced in the notes above are proposed to be relinquished pursuant to the Settlement as discussed under "Director Compensation".

Equity Compensation Plan Information

The following table sets forth information about our common stock that may be issued upon the exercise of options, warrants and rights under all of our existing equity compensation plans as of December 31, 2014, with such plans being the 2007 Plan and the ESPP.

| | | | (c) Number of |
|-----------------------------------|-------------------------|----------------------|-----------------------|
| | | | Securities Remaining |
| | | | Available for Future |
| | (a) Number of | | Issuance Under Equity |
| | Securities to be Issued | (b) Weighted Average | Compensation Plans |
| | Upon Exercise of | Exercise Price of | (Excluding Securities |
| | Outstanding Options, | Outstanding Options, | Reflected in Column |
| Plan Category | Warrants and Rights | Warrants, and Rights | (a)) |
| Plans Approved by Shareholders | 4,918,149(1)(2) | \$3.14 | 11,896,515(3) |
| Plan Not Approved by Shareholders | _ | | — |
| Totals | 4,918,149 | \$3.14 | 11,896,515 |

(1) These shares were subject to stock options then outstanding under the 2007 Plan.

- (2) As described in the "Compensation Discussion and Analysis" above, the Compensation Committee approved the Long-Term Performance Awards under the 2007 Plan that would be payable in fully-vested shares of our common stock upon satisfaction of the performance and other requirements imposed on the award, with a portion of such awards being granted in the form of restricted shares that would vest upon achievement of the related performance goal, and the balance of such awards being granted in the form of restricted shares that would vest upon achievement of the related performance goal, and the balance of such awards being granted in the form of restricted stock units as a contingent right to receive additional vested shares upon achievement of the performance goal based on our total outstanding shares at the time such goal is achieved. Columns (a) and (b) of this table are presented without giving effect to the Long-Term Performance Awards as (i) the restricted shares representing the LTIP Restricted Stock were issued and outstanding as of December 31, 2014 and (ii) the remaining number of shares that would be issuable in payment of these awards with respect to the LTIP RSUs depends on our total issued and outstanding shares at the time of payment and was therefore not determinable as of December 31, 2014. More information regarding the LTIP RSUs is presented in Proposal 2 above.
- (3) Of these shares, 11,862,366 shares were available for issuance under the 2007 Plan, and 34,149 were available for issuance under the ESPP. This number of shares is presented after giving effect to the LTIP Restricted Stock but before giving effect to the LTIP RSUs and before giving effect to the proposed relinquishment of the outstanding LTIP Restricted Stock by the non-employee directors pursuant to the Settlement. In the event of the full vesting of the LTIP RSUs, the foregoing 11,862,366 shares would be used entirely to satisfy only a portion of the LTIP RSUs. In such instance, the Company would be unable to issue any new awards under the 2015 Plan since all such shares would be consumed by such a partial payout of the LTIP RSUs, even after giving effect to the proposed relinquishment of the outstanding Long-Term Performance Awards by the applicable non-employee directors pursuant to the Settlement. If the LTIP RSUs become payable and sufficient shares are not available under the applicable equity plan, the number of shares payable with respect to the LTIP RSUs will be proportionately reduced such that the share limits of the applicable equity plan at the time of vesting will not be exceeded. In the event that sufficient shares are not available under such plan at the time of vesting, the Company may elect to amend the awards to, but is not required to, settle the Long-Term Performance Awards in cash or any other asset.

More information regarding the LTIP RSUs is presented in Proposal 2 above.

Executive Officers

The following table sets forth certain information with respect to our executive officers as of June 30, 2015:

| Name | Age | Position |
|-------------------------|------|---|
| James A. Bianco, M.D. | 58 | President and Chief Executive Officer |
| Louis A. Bianco | 62 | Executive Vice President, Finance and Administration, Chief Governance Officer and |
| | | Secretary |
| Matthew Plunkett, Ph.D. | . 44 | Executive Vice President, Corporate Development |
| Jack W. Singer, M.D. | 72 | Executive Vice President, Chief Scientific Officer, Interim Chief Medical Officer and |
| | | Global Head of Translational Medicine |

Effective July 27, 2015, Bruce J. Seeley, age 51, was appointed to the role of Executive Vice President and Chief Commercial Officer.

For biographical information concerning Dr. James Bianco and Dr. Jack Singer, who are each our directors as well as executive officers, please see the discussion above under Proposal 1.

Mr. Bianco is one of our founders and has been our Executive Vice President, Finance and Administration since February 1, 1992. He has also been our Chief Governance Officer since September 18, 2013. He was also a director from our inception in September 1991 to April 1992 and from April 1993 to April 1995. From January 1989 through January 1992, Mr. Bianco was a Vice President at Deutsche Bank Capital Corporation in charge of risk management. Mr. Bianco is a Certified Public Accountant and received his M.B.A. from New York University. Mr. Bianco and Dr. Bianco are brothers.

Dr. Plunkett assumed his role as our Executive Vice President, Corporate Development in September 2012. Dr. Plunkett previously served as Chief Financial Officer of the California Institute for Regenerative Medicine from November 2011 to August 2012. From July 2009 to April 2011, Dr. Plunkett was the Vice President and Chief Financial Officer of iPerian, Inc. From December 2000 to July 2009, Dr. Plunkett held positions at Oppenheimer & Co. and its U.S. predecessor, CIBC World Markets, including serving as Managing Director, Head of West Coast Biotechnology from December 2008 to July 2009, and Executive Director, Head of West Coast Biotechnology from January 2008 to December 2008. He received his B.S. in chemistry from Harvey Mudd College and a Ph.D. in organic chemistry from the University of California, Berkeley.

Mr. Seeley assumed his role as our Executive Vice President and Chief Commercial Officer in July 2015. Mr. Seeley previously served as Senior Vice President and General Manager, Diagnostics at NanoString Technologies, Inc. from May 2012 to March 2015. From October 2009 to March 2012, Mr. Seeley was Executive Vice President, Commercial, at Seattle Genetics, Inc. Prior to that, from August 2004 to October 2009, Mr. Seeley served in various commercial roles at Genentech, Inc. (now a member of the Roche Group). From 1996 to 2004, Mr. Seeley held various roles at Aventis Pharmaceuticals Inc. (now a part of Sanofi) in global and U.S. marketing, sales and new product commercialization and licensing. Prior to that, from 1991 to 1996, he served in sales at Bristol-Myers Squibb Company. Mr. Seeley received a B.A. in Sociology from the University of California at Los Angeles.

Related Party Transactions Overview

Pursuant to our Code of Business Conduct and Ethics and the Amended and Restated Charter for the Audit Committee, any potential related party transaction must be fully disclosed to the person fulfilling the role of chief financial officer. Upon review, if such chief financial officer determines that the transaction is material to us, then the Audit Committee must review and approve in writing in advance such related party transaction. Item 404(a) of Regulation S-K requires us to disclose in this Proxy Statement any transaction involving more than \$120,000 in which we are a participant and in which any related person has or will have a direct or indirect material interest. A related person is any executive officer, director, nominee for director, or holder of 5% or more of our common stock or an immediate family member of any of those persons. Certain Transactions with Related Persons

Aequus

In May 2007, we formed Aequus, a majority-owned subsidiary of which our ownership was approximately 61% as of December 31, 2014. We entered into a license agreement with Aequus whereby Aequus gained rights to certain technology known as the Genetic PolymerTM.

In May 2007, we also entered into an agreement to fund Aequus in exchange for a convertible promissory note. The terms of the note provide that (i) interest accrues at a rate of 6% per annum until maturity, (ii) in the event the note balance is not paid on or before the maturity date, interest accrues at a rate of 10% per annum and (iii) prior to maturity, the note is convertible into a number of shares of Aequus equity securities equal to the quotient obtained by dividing (1) the outstanding balance of the note by (2) the price per share of the Aequus equity securities. While the original note matured and was due and payable in May 2012, in June 2015, we and Aequus entered into an amendment to the note pursuant to which the maturity date was extended to June 30, 2016. In addition, we and Aequus are party to a services agreement to provide certain administrative and research and development services to Aequus. The amounts charged for these services, if unpaid by Aequus within thirty days, will be considered additional principal advanced under the promissory note. We funded Aequus \$2.0 million, \$1.5 million and \$0.6 million during the years ended December 31, 2014, 2013 and 2012, respectively, and \$1.3 million for the six months ended June 30, 2015, including amounts advanced in association with the services agreement. The Aequus note balance, including accrued interest, was approximately \$8.1 million and \$5.8 million as of December 31, 2014 and 2013, respectively and \$9.6 million as of June 30, 2015.

Two of our named executive officers, James A. Bianco, M.D. and Jack W. Singer, M.D., are minority shareholders of Aequus, each owning approximately 4.4% of the equity in Aequus as of December 31, 2014. Both Dr. Bianco and Dr. Singer are members of Aequus' Board. Additionally, Frederick W. Telling, Ph.D., a member of our Board, owns approximately 1.3% of Aequus as of December 31, 2014, and is also a member of Aequus' Board. In 2014, 2013 and 2012, Dr. Telling earned \$10,000, \$12,500 and \$7,500, respectively, in fees for his service on the Board of Aequus. Dr. Telling did not receive any other compensation in 2014 for his services to Aequus. Our Executive Vice President, Finance and Administration, Louis A. Bianco provides certain consulting services to Aequus, including financial guidance business development services.

Baxalta

Baxalta beneficially owns 15,673,981 shares of our common stock (or approximately 8.7% of our common stock as of June 30, 2015), initially issued in connection with entry into a Development, Commercialization and License Agreement (the "License Agreement"), dated as of November 14, 2013, by and among us, Baxter International Inc., Baxter Healthcare Corporation and Baxter Healthcare SA (collectively, "Baxter"), and a Registration Rights Agreement between us and Baxter Healthcare SA dated November 14, 2013. In April 2015, Baxalta was assigned Baxter's rights and obligations under the License Agreement.

Pursuant to the License Agreement, the Company has granted Baxalta an exclusive, worldwide (subject to certain co-promotion rights), royalty-bearing, non-transferable license (which is sub-licensable under certain circumstances) relating to pacritinib. Licensed products under the License Agreement consist of products in which pacritinib is an ingredient. Pursuant to the License Agreement, Baxter paid us an upfront payment of \$60 million, which included a \$30 million investment in our equity. The License Agreement also provides for us to receive potential additional payments of up to \$302 million upon the successful achievement of certain development and commercialization milestones, comprised of \$112 million of potential clinical, regulatory and commercial launch milestone payments, and potential additional sales milestone payments of up to \$190 million. Of such potential milestone payments, we have received \$20 million relating to the achievement of a clinical milestone and an advance of \$32 million in connection with the License Amendment discussed below. We and Baxalta will jointly commercialize and share any profits and losses on sales of pacritinib in the U.S.

We were responsible for all development costs incurred prior to January 1, 2014, and are responsible for approximately \$96 million in U.S. and E.U. development costs incurred thereafter, subject to potential adjustment in certain circumstances. All development costs exceeding the \$96 million threshold will generally be shared as follows: (i) costs generally applicable worldwide will be shared 75 percent to Baxalta and 25 percent to us, (ii) costs applicable to territories exclusive to Baxalta will be 100 percent borne by Baxalta and (iii) costs applicable exclusively to co-promotion in the U.S. will be shared equally between the parties, subject to certain exceptions.

Outside the U.S., we are eligible to receive tiered high single digit to mid-teen percentage royalty payments based on net sales for myelofibrosis, and higher double-digit royalties for other indications, subject to reduction by up to 50

percent if (i) Baxalta is required to obtain third party royalty-bearing licenses to fulfill its obligations under the License Agreement and (ii) in any jurisdiction where there is no longer either regulatory exclusivity or patent protection.

Effective June 8, 2015, we entered into the First Amendment to the License Agreement (the "License Amendment") pursuant to which two milestone payments from Baxalta to us were accelerated from the schedule contemplated by the License Agreement. As a result, we received a total advance of \$32 million from Baxalta relating to the following two milestone payments under the License Agreement: (i) the \$12 million development milestone payment payable in connection with the regulatory submission to the European Medicines Agency with respect to pacritinib (the "EMA Milestone") and (ii) a \$20 million development milestone payment payable for the first treatment dosing of the last patient enrolled in PERSIST-2 (the "PERSIST-2 Milestone"), the ongoing randomized Phase 3 trial evaluating pacritinib for patients with myelofibrosis whose platelet counts are less than or equal to 100,000 per microliter. Each of the two milestone advances will bear interest at an annual rate of 9% percent until the earlier of (i) the date of first occurrence of the respective milestone and (ii) the date that the respective advance plus accrued interest is repaid in full. In the event that pacritinib development is terminated either because of a regulatory determination that the benefit/risk profile of the drug candidate is unacceptable or due to safety concerns or certain other reasons, including the failure of pacritinib to meet certain criteria or certain endpoints (each, a "Milestone Failure"), we would be required to repay the respective advance to Baxalta in eight quarterly installments beginning thirty days after the end of the calendar quarter of the first occurrence of a Milestone Failure and a final payment equal to the remainder of the unpaid balance. Certain other events could also cause us to be required to repay the advances prior to the occurrence of the respective milestone. If a milestone is achieved, however, we would remain entitled to the respective advance. In the event that we do not spend a specified amount on the development of pacritinib from June 8, 2015 through February 29, 2016, payments to Baxalta in an amount equal to such deficiency may be required or credited against amounts owed to us in certain circumstances. Pursuant to the License Amendment, we and Baxalta have each been allocated up to 50% of the manufacturing (subject to certain conditions) with certain pricing adjustments based on comparative costs of supply. To the extent that any expenses are advanced by Baxalta on our behalf, such amounts would be deducted against any payments Baxalta owes us pursuant to the License Agreement.

The License Agreement will expire when Baxalta has no further obligation to pay royalties to us in any jurisdiction, at which time the licenses granted to Baxalta will become perpetual and royalty-free.

Prior to the recent spin-off by Baxter International Inc. of Baxalta, an affiliate of Baxter International Inc. beneficially owned approximately 15,673,981 shares of our common stock. We understand that Baxter International Inc. beneficially owns approximately 19.5% of Baxalta's common stock as of July 1, 2015. One of our subsidiaries, CTI Life Sciences Limited ("CTILS"), is party to a manufacturing and supply agreement (the "MSA") dated February 25, 2015 with Baxter Oncology GmbH ("Baxter Oncology"), which we understand is an affiliate of Baxter International Inc. Pursuant to the MSA, Baxter Oncology has agreed to provide certain manufacturing and supply services to CTILS with regard to PIXUVRI. In exchange, CTILS has agreed (i) to expend approximately €1.3 million under the MSA in connection with process development and validation for the manufacture of PIXUVRI and (ii) beginning in 2018, to purchase from Baxter Oncology a minimum percentage of PIXUVRI product sold by CTILS or its sublicensees in certain territories.

Employment Relationship

Corey Masten-Legge, a stepson of James A. Bianco, M.D., is employed as a corporate attorney in our legal department. In 2014, Mr. Masten-Legge received \$249,240 in base salary and bonus, \$3,739 in 401(k) Plan matching funds and a grant of stock options for 15,500 shares of common stock with a grant-date fair value (based on the assumptions used to value equity awards in our financial reporting) of \$41,131.

Beneficial Ownership Reporting Compliance under Section 16(a) of the Exchange Act

Section 16(a) of the Exchange Act ("Section 16(a)") requires our executive officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file with the SEC reports of ownership and reports of changes in ownership of common stock and our other equity securities. Executive officers, directors and greater than 10% shareholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. Based solely on review of this information or written representations from reporting persons that no other reports were required, we believe that, during the 2014 fiscal year, all Section 16(a) filing requirements applicable to our executive officers, directors and any greater than 10% beneficial owners complied with Section 16(a), except that one late report on Form 4 was filed pertaining to a gift by Mary O. Mundinger of shares of the Company's common stock.

Other Business

As of the date of this Proxy Statement, we know of no other business that will be presented for action at the Annual Meeting.

Delivery of Documents to Shareholders Sharing an Address

We have adopted a procedure called "householding," which the SEC has approved. Under this procedure, shareholders of record who have the same address and last name will receive only one copy of our proxy materials unless we receive contrary instructions from one or more of such shareholders. Upon oral or written request, we will deliver promptly a separate copy of the proxy materials to a shareholder at a shared address to which a single copy of proxy materials was delivered. If you are a shareholder of record at a shared address to which we delivered a single copy of the proxy materials and you desire to receive a separate copy of the proxy materials for the Annual Meeting or for our future meetings, or if you are a shareholder at a shared address to which we delivered multiple copies of the proxy materials and you desire to receive one copy in the future, please submit your request to the Householding Department of Broadridge Financial Solutions, Inc. at 51 Mercedes Way, Edgewood, New York 11717, U.S.A. or at 1-800-542-1061. If you are a beneficial shareholder, please contact your bank, broker, trustee or other nominee directly if you have questions, require additional copies of the proxy materials, wish to receive multiple reports by revoking your consent to householding or wish to request single copies of the proxy materials in the future.

Where You Can Find Additional Information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document that we file at the Public Reference Room of the SEC at 100 F Street, N.E., Washington, D.C. 20549, U.S.A. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a website at http://www.sec.gov, from which interested persons can electronically access our SEC filings.

75

Any person, including any beneficial owner, to whom this Proxy Statement is delivered may request copies of reports, proxy statements or other information concerning us (including the documents incorporated by reference herein) without charge, by written or telephonic request directed to our Secretary at 3101 Western Avenue, Suite 600, Seattle, Washington 98121, U.S.A. We undertake to provide required copies by first class mail or other equally prompt means within one business day of receipt of such request. If you would like to request documents, please do so by September 9, 2015 in order to receive them before the Annual Meeting.

By Order of the Board of Directors

Louis A. Bianco

Executive Vice President, Finance & Administration Secretary

Seattle, Washington

July 29, 2015

APPENDIX A

CTI BIOPHARMA CORP.

2015 EQUITY INCENTIVE PLAN

1.PURPOSE OF PLAN

The purpose of this CTI BioPharma Corp. 2015 Equity Incentive Plan (this "Plan") of CTI BioPharma Corp., a Washington corporation (the "Corporation"), is to promote the success of the Corporation and to increase shareholder value by providing an additional means through the grant of awards to attract, motivate, retain and reward selected employees and other eligible persons.

2.ELIGIBILITY

The Administrator (as such term is defined in Section 3.1) may grant awards under this Plan only to those persons that the Administrator determines to be Eligible Persons. An "Eligible Person" is any person who is either: (a) an officer (whether or not a director) or employee of the Corporation or one of its Subsidiaries; (b) a director of the Corporation or one of its Subsidiaries; or (c) an individual consultant or advisor who renders or has rendered bona fide services (other than services in connection with the offering or sale of securities of the Corporation or one of its Subsidiaries in a capital-raising transaction or as a market maker or promoter of securities of the Corporation or one of its Subsidiaries) to the Corporation or one of its Subsidiaries and who is selected to participate in this Plan by the Administrator; provided, however, that a person who is otherwise an Eligible Person under clause (c) above may participate in this Plan only if such participation would not adversely affect either the Corporation's eligibility to use Form S-8 to register under the Securities Act of 1933, as amended (the "Securities Act"), the offering and sale of shares issuable under this Plan by the Corporation or the Corporation's compliance with any other applicable laws. Subject to the provisions of this Plan, the Administrator may from time to time, select among the Eligible Persons, those to whom awards shall be granted and determine the nature and amount of each award. No Eligible Person shall have any right, by virtue of this Plan, to receive an award. An Eligible Person who has been granted an award (a "participant") may, if otherwise eligible, be granted additional awards if the Administrator shall so determine in its sole discretion. As used herein, "Subsidiary" means any corporation or other entity a majority of whose outstanding voting stock or voting power is beneficially owned directly or indirectly by the Corporation; and "Board" means the Board of Directors of the Corporation.

3.PLAN ADMINISTRATION

3.1 The Administrator. This Plan shall be administered by and all awards under this Plan shall be authorized by the Administrator. The "Administrator" means the Board or one or more committees appointed by the Board or another committee (within its delegated authority) to administer all or certain aspects of this Plan. Any such committee shall be comprised solely of one or more directors or such number of directors as may be required under applicable law. A committee may delegate some or all of its authority to another committee so constituted. The Board or a committee comprised solely of directors may also delegate, to the extent permitted by applicable law, to one or more officers of the Corporation, its powers under this Plan (a) to designate the officers and employees of the Corporation and its Subsidiaries who will receive grants of awards under this Plan, and (b) to determine the number of shares subject to, and the other terms and conditions of, such awards. The Board may delegate different levels of authority to different committees with administrative and grant authority under this Plan. Unless otherwise provided in the Bylaws of the Corporation or the applicable charter of any Administrator: (a) a majority of the members of the acting Administrator shall constitute a quorum, and (b) the vote of a majority of the members of the presence of a quorum or the unanimous written consent of the members of the

Administrator shall constitute action by the acting Administrator.

To qualify any award as performance-based compensation under Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"), actions under this Plan shall be taken by a committee consisting solely of two or more outside directors (as this requirement is applied under Section 162(m) of the Code). Award grants, and transactions in or involving awards, intended to be exempt under Rule 16b-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), shall be duly and timely authorized by the Board or a committee consisting solely of two or more non-employee directors (as this requirement is applied under Rule 16b-3 promulgated under the Exchange Act). To the extent required by any applicable listing agency, this Plan shall be administered by a committee composed entirely of independent directors (within the meaning of the applicable listing agency). Notwithstanding the foregoing provisions of this paragraph, however, the failure to satisfy any such requirement shall not affect the validity of the action of the Board or any committee otherwise duly authorized and acting in the matter

- 3.2 Powers of the Administrator. Subject to the express provisions of this Plan, the Administrator is authorized and empowered to do all things necessary or desirable in connection with the authorization of awards and the administration of this Plan (in the case of a committee or delegation to one or more officers, within any express limits on the authority delegated to that committee or person(s)), including, without limitation, the authority to:
- (a) determine eligibility and, from among those persons determined to be eligible, the particular Eligible Persons who will receive an award under this Plan;
- (b) grant awards to Eligible Persons, determine the price (if any) at which securities will be offered or awarded and the number of securities to be offered or awarded to any of such persons (in the case of securities-based awards), determine the other specific terms and conditions of awards consistent with the express limits of this Plan, establish the installment(s) (if any) in which such awards shall become exercisable or shall vest (which may include, without limitation, performance and/or time-based schedules), or determine that the awards are vested and/or exercisable at grant and no delayed exercisability or vesting is required, establish any applicable performance-based exercisability or vesting requirements, and establish the events (if any) of termination, expiration or reversion of such awards;
- (c) approve the forms of any award agreements (which need not be identical either as to type of award or among participants);
- (d) construe and interpret this Plan, any sub-plan and any agreements defining the rights and obligations of the Corporation, its Subsidiaries, and participants under this Plan, further define the terms used in this Plan, and prescribe, amend and rescind rules and regulations relating to the administration of this Plan, any sub-plan or the awards granted under this Plan;
- (e) cancel, modify, or waive the Corporation's rights with respect to, or modify, discontinue, suspend, or terminate any or all outstanding awards, subject to any required consent under Section 8.6.5;
- (f) accelerate, waive or extend the vesting or exercisability, or modify or extend the term of, any or all such outstanding awards (in the case of options or stock appreciation rights, within the maximum ten-year term of such awards) in such circumstances as the Administrator may deem appropriate (including, without limitation, in connection with a termination of employment or services (as defined in the award agreement for purposes of the applicable award) or other events of a personal nature) subject to any required consent under Section 8.6.5;
- (g) adjust the number of shares of Common Stock subject to any award, adjust the price of any or all outstanding awards or otherwise waive or change previously imposed terms and conditions, in such circumstances as the Administrator may deem appropriate, in each case subject to Sections 4 and 8.6 (and subject to the no repricing provision below);
- (h) determine the date of grant of an award, which may be a designated date after but not before the date of the Administrator's action to grant the award (unless otherwise designated by the Administrator, the date of grant of an award shall be the date upon which the Administrator took the action granting an award);
- (i) determine whether, and the extent to which, adjustments are required pursuant to Section 7.1 hereof and take any of the actions contemplated by Section 7.2 in connection with the occurrence of an event of the type contemplated by Section 7.2;
- (j) acquire or settle (subject to Sections 7 and 8.6) rights under awards in cash, stock of equivalent value, or other consideration (subject to the no repricing provision below);
- (k) determine the fair market value of the Common Stock or awards under this Plan from time to time and/or the manner in which such value will be determined;
- (l) determine whether awards will be granted singly, in combination with, in tandem with, in replacement of, or as an alternative to, other awards granted under this Plan or any other incentive or compensation plan of the Corporation or any Subsidiary;
- (m) grant waivers of Plan or award conditions;

- (n) determine whether the performance targets or goals under any performance-based award have been met and whether a performance-based award has been earned; and
- (o)make all other determinations necessary or advisable for the administration of this Plan, any sub-plan or award agreement.

Notwithstanding the foregoing and except for an adjustment pursuant to Section 7.1 or a repricing approved by shareholders, in no case may the Administrator (1) amend an outstanding stock option or SAR to reduce the exercise price or base price of the award, (2) cancel, exchange, or surrender an outstanding stock option or SAR in exchange for cash or other awards for the purpose of repricing the award, or (3) cancel, exchange, or surrender an outstanding stock option or SAR in exchange stock option or SAR in exchange for an option or SAR with an exercise or base price that is less than the exercise or base price of the original award.

- 3.3 Binding Determinations. Any action taken by, or inaction of, the Corporation or the Administrator relating or pursuant to this Plan and within its authority hereunder or under applicable law shall be within the absolute discretion of that entity or body and shall be conclusive and binding upon all persons. Neither the Board nor any Board committee, nor any member thereof or person acting at the direction thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with this Plan (or any award made under this Plan), and all such persons shall be entitled to indemnification and reimbursement by the Corporation in respect of any claim, loss, damage or expense (including, without limitation, attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under any directors and officers liability insurance coverage that may be in effect from time to time. Neither the Board nor any Board committee, nor any member thereof or person acting at the direction or any of its Subsidiaries, shall be liable for any damages of a participant should an option intended as an ISO (as defined below) fail to actually meet the requirements of the Code applicable to ISOs, should any other award(s) fail to qualify for any intended tax treatment, should any award grant or other action with respect thereto not satisfy Rule 16b-3 promulgated under the Exchange Act, or otherwise for any tax or other liability imposed on a participant with respect to an award.
- 3.4 Reliance on Experts. In making any determination or in taking or not taking any action under this Plan, the Administrator may obtain and may rely upon the advice of experts, including employees and professional advisors to the Corporation. No director, officer or agent of the Corporation or any of its Subsidiaries shall be liable for any such action or determination taken or made or omitted in good faith.
- 3.5 Delegation. The Administrator may delegate ministerial, non-discretionary functions to individuals who are officers or employees of the Corporation or to third parties.

4.SHARES OF COMMON STOCK SUBJECT TO THE PLAN; SHARE LIMITS

- 4.1 Shares Available. Subject to the provisions of Section 7.1, the capital stock that may be delivered under this Plan shall be shares of the Corporation's authorized but unissued Common Stock and any shares of its Common Stock held as treasury shares. For purposes of this Plan, "Common Stock" shall mean the common stock of the Corporation and such other securities or property as may become the subject of awards under this Plan, or may become subject to such awards, pursuant to an adjustment made under Section 7.1.
- 4.2 Share Limits. The maximum number of shares of Common Stock that may be delivered pursuant to awards granted to Eligible Persons under this Plan (the "Share Limit") is equal to the sum of the following:
- (1)12,000,000 shares of Common Stock, plus
- (2) the number of shares of Common Stock available for additional award grant purposes under the Corporation's 2007 Equity Incentive Plan, as amended (the "2007 Plan"), as of the date of shareholder approval of this Plan (the "Shareholder Approval Date") and determined immediately prior to the termination of the authority to grant new awards under the 2007 Plan as of the Shareholder Approval Date, plus
- (3) the number of any shares subject to stock options granted under the 2007 Plan and outstanding on the Shareholder Approval Date which expire, or for any reason are cancelled or terminated, after the Shareholder Approval Date without being exercised, plus;

(4) the number of any shares subject to restricted stock awards granted under the 2007 Plan that are outstanding and unvested on the Shareholder Approval Date that are forfeited, terminated, cancelled or otherwise reacquired by the Corporation without having become vested.

provided that in no event shall the Share Limit exceed 29,764,794 shares (which is the sum of the 12,000,000 shares set forth above, plus the number of shares available under the 2007 Plan for additional award grant purposes as of the Effective Date (as such term is defined in Section 8.6.1), plus the aggregate number of shares subject to stock options and unvested restricted stock awards previously granted and outstanding under the 2007 Plan as of the Effective Date).

The following limits also apply with respect to awards granted under this Plan:

- (a) The maximum number of shares of Common Stock that may be delivered pursuant to options qualified as incentive stock options granted under this Plan is 12,000,000 shares.
- (b) The maximum number of shares of Common Stock subject to those options and stock appreciation rights that are granted during any calendar year to any individual under this Plan is 2,700,000 shares.
- (c) Additional limits with respect to Performance-Based Awards are set forth in Section 5.2.3.

Each of the foregoing numerical limits is subject to adjustment as contemplated by Section 4.3, Section 7.1, and Section 8.10.

- 4.3 Awards Settled in Cash, Reissue of Awards and Shares. Except as provided in the next sentence, shares that are subject to or underlie awards granted under this Plan which expire or for any reason are cancelled or terminated, are forfeited, fail to vest, or for any other reason are not paid or delivered under this Plan shall again be available for subsequent awards under this Plan. Shares that are exchanged by a participant or withheld by the Corporation as full or partial payment in connection with any award under this Plan, as well as any shares exchanged by a participant or withheld by the Corporation or one of its Subsidiaries to satisfy the tax-related items withholding obligations related to any award, shall not be available for subsequent awards under this Plan. To the extent that an award granted under this Plan is settled in cash or a form other than shares of Common Stock, the shares that would have been delivered had there been no such cash or other settlement shall not be counted against the shares available for issuance under this Plan. In the event that shares of Common Stock are delivered in respect of a dividend equivalent right granted under this Plan, the number of shares delivered with respect to the award shall be counted against the Share Limit. (For purposes of clarity, if 1,000 dividend equivalent rights are granted and outstanding when the Corporation 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). To the extent that shares of Common Stock are delivered pursuant to the exercise of a stock appreciation right or stock option granted under this Plan, the number of underlying shares as to which the exercise related shall be counted against the applicable share limits under Section 4.2, as opposed to only counting the shares 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 under Section 4.2 with respect to such exercise.) Refer to Section 8.10 for application of the foregoing share limits with respect to assumed awards. The foregoing adjustments to the share limits of this Plan are subject to any applicable limitations under Section 162(m) of the Code with respect to awards intended to qualify as performance-based compensation thereunder.
- 4.4No Fractional Shares; Minimum Issue. Unless otherwise expressly provided by the Administrator, no fractional shares shall be delivered under this Plan. The Administrator may pay cash in lieu of any fractional shares in settlements of awards under this Plan. The Administrator may from time to time impose a limit (of not greater than 100 shares) on the minimum number of shares that may be purchased or exercised as to awards (or any particular type of award) granted under this Plan unless (as to any particular award) the total number purchased or exercised is the total number at the time available for purchase or exercise under the award.

5.AWARDS

5.1 Type and Form of Awards. The Administrator shall determine the type or types of award(s) to be made to each selected Eligible Person. Awards may be granted singly, in combination or in tandem. Awards also may be made in combination or in tandem with, in replacement of, as alternatives to, or as the payment form for grants or rights under any other employee or compensation plan of the Corporation or one of its Subsidiaries. The types of awards that may be granted under this Plan are (subject, in each case, to the no repricing provisions of Section 3.2):
5.1.1Stock Options. A stock option is the grant of a right to purchase a specified number of shares of Common Stock during a specified period as determined by the Administrator. An option may be intended as an incentive stock option within the meaning of Section 422 of the Code (an "ISO") or a nonqualified stock option (an option not intended to be an ISO). The award agreement for an option will indicate if the option is intended as an ISO; otherwise it will be deemed to be a nonqualified stock option. The maximum term of each option (ISO or nonqualified) shall be ten (10) years. The per share exercise price for each option. When an option is exercised, the exercise price for the shares to be purchased shall be paid in full in cash or such other method permitted by the Administrator consistent with Section 5.5.

5.1.2Additional Rules Applicable to ISOs. To the extent that the aggregate fair market value (determined at the time of grant of the applicable option) of stock with respect to which ISOs first become exercisable by a participant in any calendar year exceeds \$100,000, taking into account both Common Stock subject to ISOs under this Plan and stock subject to ISOs under all other plans of the Corporation or one of its Subsidiaries (or any parent or predecessor corporation to the extent required by and within the meaning of Section 422 of the Code and the regulations promulgated thereunder), such options shall be treated as nonqualified stock options. In reducing the number of options treated as ISOs to meet the \$100,000 limit, the most recently granted options shall be reduced first. To the extent a reduction of simultaneously granted options is necessary to meet the \$100,000 limit, the Administrator may, in the manner and to the extent permitted by law, designate which shares of Common Stock are to be treated as shares acquired pursuant to the exercise of an ISO. ISOs may only be granted to employees of the Corporation or one of its subsidiaries (for this purpose, the term "subsidiary" is used as defined in Section 424(f) of the Code, which generally requires an unbroken chain of ownership of at least 50% of the total combined voting power of all classes of stock of each subsidiary in the chain beginning with the Corporation and ending with the subsidiary in question). There shall be imposed in any award agreement relating to ISOs such other terms and conditions as from time to time are required in order that the option be an "incentive stock option" as that term is defined in Section 422 of the Code. No ISO may be granted to any person who, at the time the option is granted, owns (or is deemed to own under Section 424(d) of the Code) shares of outstanding Common Stock possessing more than 10% of the total combined voting power of all classes of stock of the Corporation, unless the exercise price of such option is at least 110% of the fair market value of the stock subject to the option and such option by its terms is not exercisable after the expiration of five years from the date such option is granted. If an otherwise-intended ISO fails to meet the applicable requirements of Section 422 of the Code, the option shall be a nonqualified stock option.

5.1.3Stock Appreciation Rights. A stock appreciation right or "SAR" is a right to receive a payment, in cash and/or Common Stock, equal to the excess of the fair market value of a specified number of shares of Common Stock on the date the SAR is exercised over the "base price" of the award, which base price shall be set forth in the applicable award agreement and shall be not less than 100% of the fair market value of a share of Common Stock on the date of grant of the SAR. The maximum term of a SAR shall be ten (10) years.

5.1.4Other Awards; Dividend Equivalent Rights. The other types of awards that may be granted under this Plan include: (a) stock bonuses, restricted stock, performance stock, restricted stock units, phantom stock or similar rights to purchase or acquire shares, whether at a fixed or variable price (or no price) or fixed or variable ratio related to the Common Stock, and any of which may (but need not) be fully vested at grant or vest upon the passage of time, the

occurrence of one or more events, the satisfaction of performance criteria or other conditions, or any combination thereof; (b) any similar derivative securities with a value derived from the value of or related to the Common Stock and/or returns thereon; or (c) cash awards. Dividend equivalent rights may be granted as a separate award or in connection with another award under this Plan; provided, however, that dividend equivalent rights may not be granted in connection with a stock option or SAR granted under this Plan. In addition, any dividends and/or dividend equivalents as to the unvested portion of a restricted stock award that is subject to performance-based vesting requirements or the unvested portion of a restricted stock unit award that is subject to performance-based vesting requirements will be subject to termination and forfeiture to the same extent as the corresponding portion of the award to which they relate in the event the applicable performance-based vesting requirements are not satisfied.

5.2 Section 162(m) Performance-Based Awards. Without limiting the generality of the foregoing, any of the types of awards listed in Section 5.1.4 above may be, and options and SARs granted to officers and employees also may be, granted as awards intended to satisfy the requirements for "performance-based compensation" within the meaning of Section 162(m) of the Code. An Award (other than an option or SAR) intended by the Administrator to satisfy the requirements for "performance-based compensation" within the meaning of Section 162(m) of the Code is referred to as a "Performance-Based Award." An option or SAR intended to satisfy the requirements for "performance-based compensation" within the meaning of Section 162(m) of the Code is referred to as a "Qualifying Option" or a "Qualifying SAR." The grant, vesting, exercisability or payment of Performance-Based Awards may depend (or, in the case of Qualifying Options or Qualifying SARs, may also depend) on the degree of achievement of one or more performance goals relative to a pre-established targeted level or levels using one or more of the Business Criteria set forth below (on an absolute or relative (including, without limitation, relative to the performance of one or more other companies or upon comparisons of any of the indicators of performance relative to one or more other companies) basis) for the Corporation on a consolidated basis or for one or more of the Corporation's subsidiaries, segments, divisions or business units, or any combination of the foregoing. Any Qualifying Option or Qualifying SAR shall be subject only to the requirements of Section 5.2.1 and 5.2.3 in order for such award to satisfy the requirements for "performance-based compensation" under Section 162(m) of the Code. Any other Performance-Based Award shall be subject to all of the following provisions of this Section 5.2. Nothing, however, requires the Administrator to structure any award or compensation as "performance-based compensation" under Section 162(m) of the Code.

5.2.1Class; Administrator. The eligible class of persons for Performance-Based Awards under this Section 5.2 shall be officers and employees of the Corporation or one of its Subsidiaries. To qualify awards as performance-based compensation under Section 162(m) of the Code, the Administrator approving Performance-Based Awards, or any Qualifying Option or Qualifying SAR, or making any certification required pursuant to Section 5.2.4 must be constituted as provided in Section 3.1.

5.2.2Performance Goals. The specific performance goals for Performance-Based Awards (other than Qualifying Options and Qualifying SARs) shall be, on an absolute or relative basis, established based on one or more of the following business criteria ("Business Criteria") as selected by the Administrator in its sole discretion: 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. To qualify awards as performance-based under Section 162(m), the applicable Business Criterion (or Business Criteria, as the case may be) and specific performance formula, goal or goals ("targets") must be established and approved by the Administrator during the first 90 days of the performance period (and, in the case of performance periods of less than one year, in no event after 25% or more of the performance period has elapsed) and while performance relating to such target(s) remains substantially uncertain within the meaning of Section 162(m) of the Code. The terms of the Performance-Based Awards may specify the manner, if any, in which performance targets shall be adjusted to mitigate the unbudgeted impact of material, unusual or nonrecurring gains and losses, accounting changes or other items specified by the Administrator at the time of establishing the targets. The applicable performance measurement period may not be less than three months nor more than 10 years.

5.2.3Form of Payment; Maximum Performance-Based Award. Grants or awards under this Section 5.2 may be paid in cash or shares of Common Stock or any combination thereof. Grants of Qualifying Options and Qualifying SARs to any one participant in any one calendar year shall be subject to the limit set forth in Section 4.2(b). The maximum number of shares of Common Stock which may be subject to Performance-Based Awards (including Performance-Based Awards payable in shares of Common Stock and Performance-Based Awards payable in cash where the amount of cash payable upon or following vesting of the award is determined with reference to the fair

market value of a share of Common Stock at such time) that are granted to any one participant in any one calendar year shall not exceed 2,700,000 shares (counting such shares on a one-for-one basis for this purpose), either individually or in the aggregate, subject to adjustment as provided in Section 7.1; provided that this limit shall not apply to Qualifying Options and Qualifying SARs (which are covered by the limit of Section 4.2(b)). The aggregate amount of compensation to be paid to any one participant in respect of all Performance-Based Awards payable only in cash (excluding cash awards covered by the preceding sentence where the cash payment is determined with reference to the fair market value of a share of Common Stock upon or following the vesting of the award) and granted to that participant in any one calendar year shall not exceed \$650,000. Awards that are cancelled during the year shall be counted against these limits to the extent required by Section 162(m) of the Code.

5.2.4Certification of Payment. Before any Performance-Based Award under this Section 5.2 (other than Qualifying Options and Qualifying SARs) is paid and to the extent applicable to qualify the award as performance-based compensation within the meaning of Section 162(m) of the Code, the Administrator must certify in writing that the performance target(s) and any other material terms of the Performance-Based Award were in fact timely satisfied.

5.2.5Reservation of Discretion. The Administrator will have the discretion to determine the restrictions or other limitations of the individual awards granted under this Section 5.2 including the authority to reduce awards, payouts or vesting or to pay no awards, in its sole discretion, if the Administrator preserves such authority at the time of grant by language to this effect in its authorizing resolutions or otherwise.

5.2.6Expiration of Grant Authority. As required pursuant to Section 162(m) of the Code and the regulations promulgated thereunder, the Administrator's authority to grant new awards that are intended to qualify as performance-based compensation within the meaning of Section 162(m) of the Code (other than Qualifying Options and Qualifying SARs) shall terminate upon the first meeting of the Corporation's shareholders that occurs in the fifth year following the year in which the Corporation's shareholders first approve this Plan, subject to any subsequent extension that may be approved by shareholders.

- 5.3 Award Agreements. Each award shall be evidenced by a written or electronic award agreement or notice in a form approved by the Administrator (an "award agreement"), and, in each case and if required by the Administrator, executed or otherwise electronically accepted by the recipient of the award in such form and manner as the Administrator may require.
- 5.4 Deferrals and Settlements. Payment of awards may be in the form of cash, Common Stock, other awards or combinations thereof as the Administrator shall determine, and with such restrictions (if any) as it may impose. The Administrator may also require or permit participants to elect to defer the issuance of shares or the settlement of awards in cash under such rules and procedures as it may establish under this Plan. The Administrator may also provide that deferred settlements include the payment or crediting of interest or other earnings on the deferral amounts, or the payment or crediting of dividend equivalents where the deferred amounts are denominated in shares.
- 5.5 Consideration for Common Stock or Awards. The purchase price (if any) for any award granted under this Plan or the Common Stock to be delivered pursuant to an award, as applicable, may be paid by means of any lawful consideration as determined by the Administrator, including, without limitation, one or a combination of the following methods:
- ·services rendered by the recipient of such award;
- $\cdot cash,$ check payable to the order of the Corporation, or electronic funds transfer;
- •notice and third party payment in such manner as may be authorized by the Administrator;
- ·the delivery of previously owned shares of Common Stock;
- \cdot by a reduction in the number of shares otherwise deliverable pursuant to the award; or

•subject to such procedures as the Administrator may adopt, pursuant to a "cashless exercise" with a third party who provides financing for the purposes of (or who otherwise facilitates) the purchase or exercise of awards. In no event shall any shares newly-issued by the Corporation be issued for less than the minimum lawful consideration for such shares or for consideration other than consideration permitted by applicable state law. The Corporation will not be obligated to deliver any shares unless and until it receives full payment of the exercise or purchase price therefor and any related withholding obligations under Section 8.5 and any other conditions to exercise or purchase have been satisfied. Unless otherwise expressly provided in the applicable award agreement, the Administrator may at any time eliminate or limit a participant's ability to pay any purchase or exercise price of any award or shares by any method other than cash payment to the Corporation.

5.6 Definition of Fair Market Value. For purposes of this Plan, "fair market value" shall mean, unless otherwise determined or provided by the Administrator in the circumstances, the closing price (in regular trading) for a share of Common Stock on the NASDAO Stock Market (the "Market") for the date in question or, if no sales of Common Stock were reported on the Market on that date, the closing price (in regular trading) for a share of Common Stock on the Market for the next preceding day on which sales of Common Stock were reported on the Market. The Administrator may, however, provide with respect to one or more awards that the fair market value shall equal the closing price (in regular trading) for a share of Common Stock on the Market on the last trading day preceding the date in question or the average of the high and low trading prices of a share of Common Stock on the Market for the date in question or the most recent trading day. If the Common Stock is no longer listed or is no longer actively traded on the Market as of the applicable date, the fair market value of the Common Stock shall be the value as reasonably determined by the Administrator for purposes of the award in the circumstances. The Administrator also may adopt a different methodology for determining fair market value with respect to one or more awards if a different methodology is necessary or advisable to secure any intended favorable tax, legal or other treatment for the particular award(s) (for example, and without limitation, the Administrator may provide that fair market value for purposes of one or more awards will be based on an average of closing prices (or the average of high and low daily trading prices) for a specified period preceding the relevant date).

5.7 Transfer Restrictions.

5.7.1Limitations on Exercise and Transfer. Unless otherwise expressly provided in (or pursuant to) this Section 5.7 or required by applicable law: (a) all awards are non-transferable and shall not be subject in any manner to sale, transfer, anticipation, alienation, assignment, pledge, encumbrance or charge; (b) awards shall be exercised only by the participant; and (c) amounts payable or shares issuable pursuant to any award shall be delivered only to (or for the account of) the participant.

5.7.2Exceptions. The Administrator may permit awards to be exercised by and paid to, or otherwise transferred to, other persons or entities pursuant to such conditions and procedures, including limitations on subsequent transfers, as the Administrator may, in its sole discretion, establish in writing. Any permitted transfer shall be subject to compliance with applicable federal, state and foreign securities and exchange control laws and shall not be 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 interests are held by the Eligible Person or by the Eligible Person's family members).

5.7.3Further Exceptions to Limits on Transfer. The exercise and transfer restrictions in Section 5.7.1 shall not apply to:

(a) transfers to the Corporation (for example, in connection with the expiration or termination of the award),

- (b) the designation of a beneficiary to receive benefits in the event of the participant's death or, if the participant has died, transfers to or exercise by the participant's beneficiary, or, in the absence of a validly designated beneficiary, transfers by will or the laws of descent and distribution,
- (c)subject to any applicable limitations on ISOs, transfers to a family member (or former family member) pursuant to a domestic relations order if received by the Administrator,
- (d) if the participant has suffered a disability, permitted transfers or exercises on behalf of the participant by his or her legal representative, or
- (e) the authorization by the Administrator of "cashless exercise" procedures with third parties who provide financing for the purpose of (or who otherwise facilitate) the exercise of awards consistent with applicable laws and any limitations imposed by the Administrator.
- A-8

5.8 International Awards. Notwithstanding any provision of this Plan to the contrary, to comply with the laws in the countries where the Corporation or one of its Subsidiaries operates or has Eligible Persons, the Administrator, in its sole discretion, shall have the power and authority to (a) modify the terms and conditions of any Award granted to Eligible Persons in light of the laws of jurisdictions where the Eligible Persons work or reside; (b) establish sub-plans and agreements and determine the exercise or purchase price, methods of exercise and other terms and procedures and rules, to the extend such actions may be necessary or advisable, including the adoption or rules, procedures, sub-plans and agreements applicable to Subsidiaries in particular jurisdictions; provided, however, that no such sub-plans or agreements and/or modifications shall increase the Share Limit or otherwise require shareholder approval; (c) take any action, before or after an award is made, that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals. Without limiting the generality of the foregoing, the Administrator is specifically authorized to adopt rules, procedures and sub-plans with provisions that limit or modify rights on eligibility to receive an award under this Plan or on termination of active service; available methods of exercise or settlement of an award, payment of tax-related items, the shifting of employer tax liability to the participant, the withholding procedures and handling of any share certificates or other indicia of ownership which may vary with local requirements. The Administrator may also adopt sub-plans to this Plan intended to allow the Corporation to grant tax-qualified awards in a particular jurisdiction. Notwithstanding the foregoing, the Corporation's obligation to issue any shares of Common Stock or make any other payment in respect of an award granted under this Plan is subject to compliance with all applicable laws as provided in Section 8.1 of this Plan.

6.EFFECT OF TERMINATION OF EMPLOYMENT OR SERVICE ON AWARDS

- 6.1 General. The Administrator shall establish the effect (if any) of a termination of employment or service (as defined in the award agreement for purposes of the applicable award) on the rights and benefits under each award under this Plan and in so doing may make distinctions based upon, inter alia, the cause of termination and type of award. If the participant is not an employee of the Corporation or one of its Subsidiaries, is not a member of the Board, and provides other services to the Corporation or one of its Subsidiaries, the Administrator shall be the sole judge for purposes of this Plan (unless a contract or the award otherwise provides) of whether the participant continues to render services to the Corporation or one of its Subsidiaries and the date, if any, upon which such services shall be deemed to have terminated.
- 6.2 Events Not Deemed Terminations of Service. Unless the express policy of the Corporation or one of its Subsidiaries, or the Administrator, otherwise provides, or except as otherwise provided by applicable law, the employment relationship shall not be considered terminated in the case of (a) sick leave, (b) military leave, or (c) any other leave of absence authorized by the Corporation or one of its Subsidiaries, or the Administrator; provided that, unless reemployment upon the expiration of such leave is guaranteed by contract or law or the Administrator otherwise provides, such leave is for a period of not more than three months. In the case of any employee of the Corporation or one of its Subsidiaries on an approved leave of absence, continued vesting of the award while on leave from the employ of the Corporation or one of its Subsidiaries may be suspended until the employee returns to service, unless the Administrator otherwise provides or applicable law otherwise requires. In no event shall an award be exercised after the expiration of the term set forth in the applicable award agreement.
- 6.3 Effect of Change of Subsidiary Status. For purposes of this Plan and any award, if an entity ceases to be a Subsidiary of the Corporation a termination of employment or service (as defined in the award agreement for purposes of the applicable award) shall be deemed to have occurred with respect to each Eligible Person in respect of such Subsidiary who does not continue as an Eligible Person in respect of the Corporation or another Subsidiary that continues as such after giving effect to the transaction or other event giving rise to the change in status unless the Subsidiary that is sold, spun-off or otherwise divested (or its successor or a direct or indirect parent of such Subsidiary or successor) assumes the Eligible Person's award(s) in connection with such transaction.

7.ADJUSTMENTS; ACCELERATION

7.1 Adjustments. Subject to Section 7.2, upon (or, as may be necessary to effect the adjustment, immediately prior to): any reclassification, recapitalization, stock split (including a stock split in the form of a stock dividend) or reverse stock split; any merger, combination, consolidation, conversion or other reorganization; any spin-off, split-up, or similar extraordinary dividend distribution in respect of the Common Stock; or any exchange of Common Stock or other securities of the Corporation, or any similar, unusual or extraordinary corporate transaction in respect of the Common Stock; then the Administrator shall equitably and proportionately adjust (1) the number and type of shares of Common Stock (or other securities) that thereafter may be made the subject of awards (including the specific share limits, maximums and numbers of shares set forth elsewhere in this Plan), (2) the number, amount and type of shares of Common Stock (or other securities or property) subject to any outstanding awards, (3) the grant, purchase, or exercise price (which term includes the base price of any SAR or similar right) of any outstanding awards, in each case to the extent necessary to preserve (but not increase) the level of incentives intended by this Plan and the then-outstanding awards.

Unless otherwise expressly provided in the applicable award agreement, upon (or, as may be necessary to effect the adjustment, immediately prior to) any event or transaction described in the preceding paragraph or a sale of all or substantially all of the business or assets of the Corporation as an entirety, the Administrator shall equitably and proportionately adjust the performance standards applicable to any then-outstanding performance-based awards to the extent necessary to preserve (but not increase) the level of incentives intended by this Plan and the then-outstanding performance-based awards.

It is intended that, if possible, any adjustments contemplated by the preceding two paragraphs be made in a manner that satisfies applicable U.S. legal, tax (including, without limitation and as applicable in the circumstances, Section 424 of the Code as to ISOs, Section 409A of the Code as to awards intended to comply therewith and not be subject to taxation thereunder, and Section 162(m) of the Code as to any award intended to be performance-based compensation thereunder) and accounting (so as to not trigger any unintended charge to earnings with respect to such adjustment) requirements.

Without limiting the generality of Section 3.3, any good faith determination by the Administrator as to whether an adjustment is required in the circumstances pursuant to this Section 7.1, and the extent and nature of any such adjustment, shall be conclusive and binding on all persons.

7.2 Corporate Transactions - Assumption and Termination of Awards. Upon the occurrence of any of the following: any merger, combination, consolidation, conversion or other reorganization in connection with which the Corporation does not survive (or does not survive as a public company in respect of its Common Stock); any exchange of Common Stock or other securities of the Corporation in connection with which the Corporation does not survive (or does not survive as a public company in respect of its Common Stock); a sale of all or substantially all the business, stock or assets of the Corporation in connection with which the Corporation does not survive (or does not survive as a public company in respect of its Common Stock); a dissolution of the Corporation; or any other event in which the Corporation does not survive (or does not survive as a public company in respect of its Common Stock); then the Administrator may make provision for a cash payment in settlement of, or for the termination, assumption, substitution or exchange of any or all outstanding share-based awards or the cash, securities or property deliverable to the holder of any or all outstanding share-based awards, based upon, to the extent relevant under the circumstances, the distribution or consideration payable to holders of the Common Stock upon or in respect of such event. Upon the occurrence of any event described in the preceding sentence, then, unless the Administrator has made a provision for the substitution, assumption, exchange or other continuation or settlement of the award or the award would otherwise continue in accordance with its terms in the circumstances: (1) unless otherwise provided in the applicable award agreement, each then-outstanding option and SAR shall

become fully vested, all shares of restricted stock then outstanding shall fully vest free of restrictions, and each other award granted under this Plan that is then outstanding shall become payable to the holder of such award; and (2) each award shall terminate upon the related event; provided that the holder of an option or SAR shall be given reasonable advance notice of the impending termination and a reasonable opportunity to exercise his or her outstanding vested options and SARs (after giving effect to any accelerated vesting required in the circumstances) in accordance with their terms before the termination of such awards (except that in no case shall more than ten days' notice of the impending termination be required and any acceleration of vesting and any exercise of any portion of an award that is so accelerated may be made contingent upon the actual occurrence of the event).

Without limiting the preceding paragraph, in connection with any event referred to in the preceding paragraph or any change in control event defined in any applicable award agreement, the Administrator may, in its discretion, provide for the accelerated vesting of any award or awards as and to the extent determined by the Administrator in the circumstances.

The Administrator may adopt such valuation methodologies for outstanding awards as it deems reasonable in the event of a cash or property settlement and, in the case of options, SARs or similar rights, but without limitation on other methodologies, may base such settlement solely upon the excess if any of the per share amount payable upon or in respect of such event over the exercise or base price of the award.

In any of the events referred to in this Section 7.2, the Administrator may take such action contemplated by this Section 7.2 prior to such event (as opposed to on the occurrence of such event) to the extent that the Administrator deems the action necessary to permit the participant to realize the benefits intended to be conveyed with respect to the underlying shares. Without limiting the generality of the foregoing, the Administrator may deem an acceleration and/or termination to occur immediately prior to the applicable event and, in such circumstances, will reinstate the original terms of the award if an event giving rise to an acceleration and/or termination does not occur.

Without limiting the generality of Section 3.3, any good faith determination by the Administrator pursuant to its authority under this Section 7.2 shall be conclusive and binding on all persons.

7.3 Other Acceleration Rules. The Administrator may override the provisions of Section 7.2 by express provision in the award agreement and may accord any Eligible Person a right to refuse any acceleration, whether pursuant to the award agreement or otherwise, in such circumstances as the Administrator may approve. The portion of any ISO accelerated in connection with an event referred to in Section 7.2 (or such other circumstances as may trigger accelerated vesting of the award) shall remain exercisable as an ISO only to the extent the applicable \$100,000 limitation on ISOs is not exceeded. To the extent exceeded, the accelerated portion of the option shall be exercisable as a nonqualified stock option under the Code.

8.OTHER PROVISIONS

- 8.1 Compliance with Laws. This Plan, the granting and vesting of awards under this Plan, the offer, issuance and delivery of shares of Common Stock, and/or the payment of money under this Plan or under awards are subject to compliance with all applicable federal, state, local and foreign laws, rules and regulations (including but not limited to state and federal securities law and federal margin requirements) and to such approvals by any listing, regulatory or governmental authority, including governmental agencies outside the United States, as may, in the opinion of counsel for the Corporation, be necessary or advisable in connection therewith. The person acquiring any securities under this Plan will, if requested by the Corporation, provide such assurances and representations to the Corporation as the Administrator may deem necessary or desirable to assure compliance with all applicable legal and accounting requirements.
- 8.2No Rights to Award. No person shall have any claim or rights to be granted an award (or additional awards, as the case may be) under this Plan, subject to any express contractual rights (set forth in a document other than this Plan) to the contrary.
- 8.3 No Employment/Service Contract. Nothing contained in this Plan (or in any other documents under this Plan or in any award) shall confer upon any Eligible Person or other participant any right to continue in the employ or other service of the Corporation or one of its Subsidiaries, constitute any contract or agreement of employment or other service or affect an employee's status as an employee at will, nor shall interfere in any way with the right of the Corporation or one of its Subsidiaries to change a person's compensation or other benefits, or to terminate his or her employment or other service, with or without cause. Nothing in this Section 8.3, however, is intended to adversely affect any express independent right of such person under a separate employment or service contract other than an award agreement.

- 8.4 Plan Not Funded. Awards payable under this Plan shall be payable in shares or from the general assets of the Corporation, and no special or separate reserve, fund or deposit shall be made to assure payment of such awards. No participant, beneficiary or other person shall have any right, title or interest in any fund or in any specific asset (including shares of Common Stock, except as expressly otherwise provided) of the Corporation or one of its Subsidiaries by reason of any award hereunder. Neither the provisions of this Plan (or of any related documents), nor the creation or adoption of this Plan, nor any action taken pursuant to the provisions of this Plan shall create, or be construed to create, a trust of any kind or a fiduciary relationship between the Corporation or one of its Subsidiaries and any participant, beneficiary or other person. To the extent that a participant, beneficiary or other person acquires a right to receive payment pursuant to any award hereunder, such right shall be no greater than the right of any unsecured general creditor of the Corporation.
- 8.5 Tax Withholding. The Corporation and its Subsidiaries, as appropriate shall have the authority and the right to deduct or withhold or require a participant to remit to the Corporation or its Subsidiaries an amount sufficient to satisfy any tax-related items with respect to any tax withholding or taxable event concerning a participant arising as a result of this Plan or to take any action as may be necessary in the opinion of the Corporation or its Subsidiaries, as appropriate, to satisfy withholding obligations for the payment of tax-related items, including but not limited to (a) withholding from the participant's wages or other cash compensation; (b) withholding from the proceeds from the sale of the shares of Common Stock subject to or underlying an award either through a voluntary sale or a mandatory sale arranged by the Corporation on the participant's behalf; (c) through withholding of shares of Common Stock underlying the award; provided, however, that the fair market value of the shares of Common Stock withheld to cover any tax-related items may in no event exceed the minimum whole number of shares required to be withheld under applicable tax law; or (d) any other method of withholding deemed acceptable by the Administrator in its sole discretion. The Corporation shall have no obligation to deliver shares of Common Stock or make any other payment under or with respect to an award until the participant or other person has made arrangements acceptable to the Administrator for the satisfaction of these tax obligations with respect to any tax withholding or taxable event concerning the participant or such other person arising as a result of the participant's participation in this Plan. For purposes of this Plan, "tax-related items" means federal, state, local or foreign taxes including but not limited to income tax, social insurance contributions, fringe benefits tax, payment on account, employment tax, payroll tax and stamp taxes, required by law to be withheld any employer liability that may be shifted to any participants.
- 8.6 Effective Date, Termination and Suspension, Amendments.

8.6.1Effective Date. This Plan is effective as of July 27, 2015, the date of its approval by the Board (the "Effective Date"). This Plan shall be submitted for and subject to shareholder approval no later than twelve months after the Effective Date. Unless earlier terminated by the Board and subject to any extension that may be approved by stockholders, this Plan shall terminate at the close of business on the day before the tenth anniversary of the Effective Date. After the termination of this Plan either upon such stated termination date or its earlier termination by the Board, no additional awards may be granted under this Plan, but previously granted awards (and the authority of the Administrator with respect thereto, including the authority to amend such awards) shall remain outstanding in accordance with their applicable terms and conditions and the terms and conditions of this Plan.

8.6.2Board Authorization. The Board may, at any time, terminate or, from time to time, amend, modify or suspend this Plan, in whole or in part. No awards may be granted during any period that the Board suspends this Plan.

8.6.3Shareholder Approval. To the extent then required by applicable law or deemed necessary or advisable by the Board, any amendment to this Plan shall be subject to shareholder approval.

8.6.4Amendments to Awards. Without limiting any other express authority of the Administrator under (but subject to) the express limits of this Plan, the Administrator by agreement or resolution may waive conditions of or limitations on awards to participants that the Administrator in the prior exercise of its discretion has imposed, without the consent of a participant, and (subject to the requirements of Sections 3.2 and 8.6.5) may make other changes to the terms and

conditions of awards. Any amendment or other action that would constitute a repricing of an award is subject to the limitations set forth in Section 3.2.

8.6.5Limitations on Amendments to Plan and Awards. No amendment, suspension or termination of this Plan or amendment of any outstanding award agreement shall, without written consent of the participant, affect in any manner materially adverse to the participant any rights or benefits of the participant or obligations of the Corporation under any award granted under this Plan prior to the effective date of such change. Changes, settlements and other actions contemplated by Section 7 shall not be deemed to constitute changes or amendments for purposes of this Section 8.6.

- 8.7 Privileges of Stock Ownership. Except as otherwise expressly authorized by the Administrator, a participant shall not be entitled to any privilege of stock ownership as to any shares of Common Stock not actually delivered to and held of record by the participant. Except as expressly required by Section 7.1 or otherwise expressly provided by the Administrator, no adjustment will be made for dividends or other rights as a shareholder for which a record date is prior to such date of delivery.
- 8.8 Governing Law; Construction; Severability.

8.8.1Choice of Law. This Plan, the awards, all documents evidencing awards and all other related documents shall be governed by, and construed in accordance with the laws of the State of Washington, without regard to its conflict of law provisions.

8.8.2Severability. If a court of competent jurisdiction holds any provision invalid and unenforceable, the remaining provisions of this Plan shall continue in effect.

- 8.9 Captions. Captions and headings are given to the sections and subsections of this Plan solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of this Plan or any provision thereof.
- 8.10 Stock-Based Awards in Substitution for Stock Options or Awards Granted by Other Corporation. Awards may be granted to Eligible Persons in substitution for or in connection with an assumption of employee stock options, SARs, restricted stock or other stock-based awards granted by other entities to persons who are or who will become Eligible Persons in respect of the Corporation or one of its Subsidiaries, in connection with a distribution, merger or other reorganization by or with the granting entity or an affiliated entity, or the acquisition by the Corporation or one of its Subsidiaries, directly or indirectly, of all or a substantial part of the stock or assets of the employing entity. The awards so granted need not comply with other specific terms of this Plan, provided that the awards shall reflect adjustments giving effect to the assumption or substitution consistent with any conversion applicable to the Common Stock (or the securities otherwise subject to the award) in the transaction and any change in the issuer of the security. Any shares that are delivered and any awards that are granted by, or become obligations of, the Corporation, as a result of the assumption by the Corporation of, or in substitution for, outstanding awards previously granted by an acquired company (or previously granted by a predecessor employer (or direct or indirect parent thereof) in the case of persons that become employed by the Corporation or one of its Subsidiaries in connection with a business or asset acquisition or similar transaction) shall not be counted against the Share Limit or other limits on the number of shares available for issuance under this Plan.
- 8.11 Non-Exclusivity of Plan. Nothing in this Plan shall limit or be deemed to limit the authority of the Board or the Administrator to grant awards or authorize any other compensation, with or without reference to the Common Stock, under any other plan or authority.
- 8.12No Corporate Action Restriction. The existence of this Plan, the award agreements and the awards granted hereunder shall not limit, affect or restrict in any way the right or power of the Corporation or any Subsidiary (or any of their respective shareholders, board of directors or committees thereof, as the case may be) to make or authorize: (a) any adjustment, recapitalization, reorganization or other change in the capital structure or business of the Corporation or any Subsidiary, (b) any merger, amalgamation, consolidation or change in the ownership of the Corporation or any Subsidiary, (c) any issue of bonds, debentures, capital, preferred or prior preference stock ahead of or affecting the capital stock (or the rights thereof) of the Corporation or any Subsidiary, (d) any dissolution or liquidation of the Corporation or any Subsidiary, (e) any sale or transfer of all or any part of the assets or business of the Corporation or any Subsidiary, or (f) any other corporate act or proceeding by the

Corporation or any Subsidiary. No participant, beneficiary or any other person shall have any claim under any award or award agreement against any member of the Board or the Administrator, or the Corporation or any employees, officers or agents of the Corporation or any Subsidiary, as a result of any such action.

- 8.13 Other Company Benefit and Compensation Programs. Payments and other benefits received by a participant under an award made pursuant to this Plan shall not be deemed a part of a participant's compensation for purposes of the determination of benefits under any other employee welfare or benefit plans or arrangements, if any, provided by the Corporation or any Subsidiary, except where the Administrator expressly otherwise provides or authorizes in writing. Awards under this Plan may be made in addition to, in combination with, as alternatives to or in payment of grants, awards or commitments under any other plans, arrangements or authority of the Corporation or its Subsidiaries.
- 8.14 Clawback Policy. The awards granted under this Plan are subject to the terms of any recoupment, clawback or similar policy of the Corporation as it may be in effect from time to time, as well as any similar provisions of applicable law, any of which could in certain circumstances require repayment or forfeiture of awards or any shares of Common Stock or other cash or property received with respect to the awards (including any value received from a disposition of the shares acquired upon payment of the awards).

APPENDIX B

CTI BIOPHARMA CORP.

2007 Employee Stock Purchase Plan

Effective as of September 27, 2007 and amended and restated as of July 27, 2015.

1.Purpose. The CTI BioPharma Corp. 2007 Employee Stock Purchase Plan (the "Plan") is intended to encourage ownership of stock by employees of CTI BioPharma Corp., a Washington corporation (the "Company"), and certain Related Corporations designated to participate in the Plan, and to provide additional incentive for the employees to promote the success of the business of the Company and any such designated Related Corporations. It is intended that the Plan shall be an "employee stock purchase plan" within the meaning of Section 423 of the Code.

2.Definitions. As used in this Plan, the following terms shall have the meanings set forth below:

(a)"Base Salary" means the regular gross base salary paid to an Optionee by one or more Participating Employers during such individual's period of participation in the Plan, plus any pre-tax contributions made by the Optionee to any Code Section 401(k) salary deferral plan or any Code Section 125 cafeteria benefit program now or hereafter established by the Company or any Related Corporation. The following items of compensation shall not be included in Base Salary:
(i) all overtime payments, bonuses, commissions (other than those functioning as base salary equivalents), profit-sharing distributions and other incentive-type payments and (ii) any and all contributions (other than Code Section 401(k) or Code Section 125 contributions) made on the Optionee's behalf by the Corporation or any Related Corporation under any employee benefit or welfare plan now or hereafter established.

(b)"Beneficiary" means the person designated as beneficiary on the Optionee's Enrollment Form, if no such beneficiary is named or no such Enrollment Form is in effect at the Optionee's death, his or her beneficiary as determined under the provisions of the Company's program of life insurance for the employee.

(c)"Board" means the Board of Directors for the Company.

(d)"Change in Control" means any of the following:

(i) the direct or indirect sale or exchange by the shareholders of the Company of all or substantially all of the Stock where the shareholders of the Company before such sale or exchange do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Company;

(ii) a merger in which the shareholders of the Company before such merger do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Company;

(iii) the sale, exchange, or transfer of all or substantially all of the Company's assets (other than a sale, exchange or transfer to one or more corporations or other entities where the shareholders of the Company before such sale, exchange, or transfer retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the corporation(s) or other entities to which the assets were transferred).

(e)"Code" means the Internal Revenue Code of 1986, as amended, or any statute successor thereto, and any regulations issued from time to time thereunder.

(f)"Committee" means a committee of the Board consisting of not less than two directors of the Company who are not employees of the Company or any Related Corporation, each appointed by the Board from time to time to serve at its pleasure for the purpose of carrying out the responsibilities of the Committee under the Plan. For any period during which no such committee is in existence, all authority and responsibility assigned to the Committee under this Plan shall be exercised, if at all, by the Board.

(g)"Eligible Employee" means a person who is employed by any Participating Employer and whose customary employment is for more than twenty (20) hours per week and for more than five (5) months per calendar year (or, as to a particular Offering Period, such lesser number of hours per week and/or lesser number of months per year as may be provided by the Committee in advance of such Offering Period).

B-1

(h)"Enrollment Form" means the Enrollment/Change Form whereby an Optionee authorizes a Participating Employer to withhold payroll deductions from his or her Base Salary and is otherwise in such form as the Committee may specify.

(i)"Exchange Act" means the Securities Exchange Act of 1934, as amended.

(j)"Fair Market Value" means, as of any given date, (i) if the Stock is listed or admitted to trade on a national securities exchange, the closing price of a share of Stock on such date (in regular trading) on the principal national securities exchange on which the Stock is so listed or admitted to trade, or, if there is no trading of the Stock on such date, then the closing price of a share of Stock on such exchange on the last day on which there was trading in the shares of Stock on such exchange that preceded such date; or (ii) in the absence of exchange data required to determine Fair Market Value pursuant to the foregoing, the value as established by the Committee as of the relevant time for purposes of the Plan.

(k)"Offering Commencement Date" means any date on which Options are granted under the Plan as determined by the Committee pursuant to Section 8.

(1)"Offering Period" means a period of approximately six (6) months' duration, beginning on an Offering Commencement Date and ending, subject to Section 9.6, on the last business day of the sixth calendar month ending after such date, during which Options are granted and outstanding under the Plan pursuant to a determination by the Committee under Section 4. The Committee shall have the power to change the duration of Offering Periods without shareholder approval and may provide for any such Offering Period to be divided into one or more "purchase periods," provided that any such change is announced prior to the relevant Offering Period, and that any such Offering Period shall not be less than three (3) months and shall not exceed twenty-seven (27) months.

(m)"Offering Termination Date" means the last business day of an Offering Period as established by the Committee in advance of the Offering Period, on which Options granted for such Offering Period must, if ever, be exercised.

(n)"Option" means an option to purchase shares of Stock granted under the Plan.

(o)"Optionee" means an Eligible Employee to whom an Option is granted.

(p)"Option Shares" means shares of Stock purchasable under an Option.

(q)"Participating Employer" means the Company or any Related Corporation which is designated by the Committee as a corporation whose Eligible Employees are eligible to receive Options as of a particular Offering Commencement Date.

(r)"Related Corporation" means any corporation which is or during the term of the Plan becomes a parent corporation of the Company, as defined in Section 424(e) of the Code, or a subsidiary corporation of the Company, as defined in Section 424(f) of the Code.

(s)"Stock" means the common stock, without par value, of the Company.

(t)"Stock Purchase Agreement" means the Stock Purchase Agreement under which an Optionee agrees to such terms and other such provisions governing his or her participation in the Plan (not inconsistent with the Plan) as the Committee may deem advisable.

3.Term of Plan. The Plan shall become effective upon the adoption of the Plan by the Board, subject to the approval of the Plan by the shareholders of the Company within 12 months of such adoption. Subject to any extension that may

be approved by the Board and the shareholders, no Option shall be granted under the Plan on or after the twentieth (20th) anniversary of such approval but Options theretofore granted may extend beyond that date.

B-2

4.Administration. The Plan shall be administered by the Committee. The Committee shall further determine which (if any) Related Corporations shall be Participating Employers as of each Offering Commencement Date. The Committee shall have authority in its discretion to interpret the Plan, to prescribe, amend and rescind rules and regulations relating to determining the terms of Options granted under the Plan, and to make all other determinations necessary or advisable for the administration of the Plan. Any determination of the Committee shall be final and binding upon all persons having or claiming any interest under the Plan or under any Option granted pursuant to the Plan. Notwithstanding anything else contained in this Plan to the contrary, the Committee may also adopt rules, procedures, separate offerings or sub-plans applicable to particular Subsidiaries or locations, which sub-plans may be designed to be outside the scope of Section 423 of the Code and need not comply with the otherwise applicable provisions of this Plan. The Committee may delegate ministerial, non-discretionary functions to individuals who are officers or employees of the Company or a Related Corporation. Without limiting the generality of the foregoing, the Committee (or its delegate) may provide forms and procedures for Enrollment Forms, and other forms or elections contemplated by the Plan, and may provide for Enrollment Forms, and other forms or elections contemplated by the Plan, to be in electronic format. Neither the Board nor any Committee, nor any member thereof or person acting at the direction thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with this Plan, and all such persons shall be entitled to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under any directors and officers liability insurance coverage that may be in effect from time to time.

5.Amendment and Termination. The Board may suspend, terminate or amend the Plan at any time and from time to time, subject to shareholder consent as may be required by applicable law. No suspension or termination of or amendment to the Plan may materially adversely affect the rights of an Optionee with respect to any Option held by the Optionee as of the date of such termination or amendment without the Optionee's consent. Changes contemplated by Section 9.6 of this Plan shall not be deemed to constitute changes or amendments requiring Participant consent.

6.Shares of Stock Subject to the Plan. No more than an aggregate of 2,000,000¹ shares of Stock may be issued or delivered pursuant to the exercise of Options granted under the Plan. Shares to be delivered upon the exercise of Options may be either shares of Stock which are authorized but unissued or shares of Stock held by the Company in its treasury. If an Option expires or terminates for any reason without having been exercised in full, the unpurchased shares subject to the Option shall become available for other Options granted under the Plan. The Company shall, at all times during which Options are outstanding, reserve and keep available shares of Stock sufficient to satisfy such Options, and shall pay all fees and expenses incurred by the Company in connection therewith. In the event of any capital change in the outstanding Stock as contemplated in Section 9.6, the number and kind of shares of Stock reserved and kept available by the Company shall be appropriately adjusted.

7.Eligibility. Each individual who is an Eligible Employee on any Offering Commencement Date of any Offering Period under the Plan may enter such Offering Period on such date, provided he or she remains an Eligible Employee and complies with all enrollment procedures established by the Committee for such Offering Period, and provided, further, he or she meets all of the following requirements:

(a)Such Eligible Employee will not, after grant of the Option, own stock possessing 5% or more of the total combined voting power or value of all classes of stock of the Company or of any Related Corporation. For purposes of this subparagraph (a), the rules of Section 424(d) of the Code shall apply in determining the stock ownership of the Eligible Employee, and stock which the Eligible Employee may purchase under outstanding options shall be treated as stock owned by the Eligible Employee.

(b)Upon grant of the Option, the employee's rights to purchase stock under all employee stock purchase plans (as defined in Section 423(b) of the Code) of the Company and its Related Corporations will not accrue at a rate which

exceeds \$25,000 of fair market value of the stock (determined at the time the right to purchase such shares is granted, before giving effect to any discounted purchase price under any such plan) for each calendar year in which such Option is outstanding at any time. The accrual of rights to purchase stock shall be determined in accordance with Section 423(b)(8) of the Code. For purposes of the foregoing, a right to purchase shares accrues when it first become exercisable during the calendar year.

8.Offering Commencement Date. Options shall be granted on the first business day of any calendar month which is designated by the Committee as the beginning of an Offering Period.

¹ Currently, 50,833 shares of Stock may be issued or delivered pursuant to the exercise of Options granted under the Plan. If shareholders approve this amendment and restatement of the Plan, this limit will increase to 2,000,000 shares of Stock.

B-3

9. Terms and Conditions of Options.

9.1General. An Optionee shall be granted a separate Option on each Offering Commencement Date for each Offering Period in which he or she participates. All Options granted on a particular Offering Commencement Date shall comply with the terms and conditions set forth in Sections 9.2 through 9.10.

9.2Purchase Price. The purchase price of Option Shares shall be 85% of the lower of (a) the Fair Market Value of the shares as of the Offering Commencement Date and (b) the Fair Market Value of the shares as of the Offering Termination Date; provided, however, that the Committee may provide prior to the start of any Offering Period that the purchase price for that Offering Period shall be determined by applying a discount amount (not to exceed 15%) to either (1) the Fair Market Value of the Stock on the Offering Termination Date of that Offering Period, or (2) the Fair Market Value of the Stock on the Offering Termination Date of that Offering Period, or (3) the lesser of the Fair Market Value of the Stock on the Offering Commencement Date of the Offering Period or the Fair Market Value of the Stock on the Offering Period.

9.3Restrictions on Transfer. Options may not be assigned, transferred, pledged, or otherwise disposed of, except by will or under the laws of descent and distribution. An Option may not be exercised by anyone other than the Optionee during the lifetime of the Optionee. Unless otherwise provided by the Committee, the Optionee shall agree in the Stock Purchase Agreement to notify the Company of any transfer of the shares within two (2) years of the Offering Commencement Date of the Offering Period in which those shares were acquired (or, if later, within one (1) year after the Offering Termination Date of such Offering Period). The Company shall have the right to place a legend on all stock certificates instructing the transfer agent to notify the Company of any transfer of the shares.

9.4Expiration. Each Option granted for an Offering Period shall expire at the close of business on the applicable Offering Termination Date or on such earlier date as may result from the operation of Section 9.5 or by action of the Committee taken pursuant to Section 9.6.

9.5Termination of Employment of Optionees; Leave of Absence. If an Optionee ceases for any reason to be an Eligible Employee during an Offering Period, whether due to death, retirement, voluntary severance, involuntary severance, transfer, or because the entity that employs the Optionee ceases to be a Related Corporation, his or her Option shall immediately expire, and the Optionee's accumulated payroll deductions shall be returned to the Optionee or his or her Beneficiary, as the case may be, by the Company, without interest. If an Optionee commences a sick leave, military leave, or other leave of absence approved by the Company or a Participating Employer, and the leave meets the requirements of Treasury Regulation Section 1.421-1(h)(2) and the Optionee is an employee of the Company or a Related Corporation or on such leave as of the applicable Offering Termination Date, such Optionee's payroll deductions hereunder shall cease, and the Optionee's accumulated payroll deductions for the applicable Offering Period shall be used to exercise the Optionee's Option as of the applicable Offering Termination Date in accordance with the provisions hereof (unless the Optionee makes a timely withdrawal election in accordance with Section 9.7, in which case such Optionee's accumulated payroll deductions shall be paid to him or her in cash in accordance with Section 9.7). During leaves of absence approved by the Company or a Participating Employer and meeting the requirements of Treasury Regulation Section 1.421-1(h)(2), an Optionee may elect to continue participation in the Plan by making cash payments to the Company on his or her normal paydays equal to the reduction in his or her payroll deductions hereunder caused by such leave.

9.6Capital Changes Affecting the Stock. In the event that, between the Offering Commencement Date and Offering Termination Date of an Option, a stock dividend is paid or becomes payable in respect of the Stock or there occurs a split-up or other increase or contraction in the number of shares of Stock without receipt of any consideration by the Company or other change in the corporate structure or capitalization affecting the Stock, appropriate adjustments shall be made to (i) the maximum number and class of securities issuable under the Plan, (ii) the maximum number and

class of securities purchasable per Optionee on any one Offering Termination Date and (iii) the number and class of securities and the price per share in effect under each outstanding Option in order to prevent the dilution or enlargement of benefits thereunder. In the event of a Change in Control, the Committee, in its sole discretion, shall either (a) provide that Options granted under the Plan shall be fully exercised to the extent of each Optionee's accumulated payroll deductions for the Offering Period as of a date prior to the Change in Control established by the Committee, or (b) arrange with the surviving, continuing, successor or purchasing corporation, as the case may be, that such corporation assume the Company's rights and obligations under the Plan. In the event that, after the Offering Commencement Date, there occurs a dissolution or liquidation of the Company, except pursuant to a transaction to which Section 424(a) of the Code applies, each Option shall terminate, but the Optionee shall have the right to exercise his or her Option prior to such dissolution or liquidation.

B-4

9.7Payroll Deductions. An Optionee may purchase shares under his or her Option during any particular Offering Period by completing and returning to the Committee (or its delegate) prior to the beginning of such Offering Period (or such earlier deadline as may be established for such Offering Period) the Stock Purchase Agreement and the Enrollment Form indicating the percentage, in any multiple of one percent (1%) up to a maximum established by the Committee for that particular Offering Period (which maximum shall be ten percent (10% unless the Committee establishes a different maximum for the particular Offering Period prior to the Offering Commencement Date of such Offering Period) of his or her Base Salary, which is to be withheld each payroll period. The Optionee shall not be permitted to change the percentage of Base Salary withheld during an Offering Period. However, the Optionee may withdraw any or all of his or her accumulated payroll deductions by submitting to the Committee (or its delegate) a new Enrollment Form no later than one (1) business day prior to the Offering Termination Date whereupon his or her payroll deductions for the remainder of the Offering Period shall cease, his or her accumulated payroll deductions for the Offering Period will be repaid to him or her in cash (without interest), and he or she shall not be permitted to re-enroll in such Offering Period. Any Stock Purchase Agreement and Enrollment Form in effect for an Offering Period shall remain in effect as to any payroll deduction amounts for subsequent Offering Periods until withdrawn as set forth above in this Section 9.7 (in which case submission of a new Enrollment Form and Stock Purchase Agreement shall be required for participation in a future Offering Period) or modified by submission of a new Enrollment Form, or until the Optionee's termination of employment for any reason as provided in Section 9.5.

9.8Exercise of Options/Excess Payroll Deductions.

(a)On the Offering Termination Date, the Optionee may purchase that number of whole shares of Stock obtained by dividing the amount collected from the Optionee through payroll deductions during the Offering Period ending with that Offering Termination Date by the purchase price in effect for that Offering Period. However, unless the Committee establishes a different limit in advance of the applicable Offering Period, the maximum number of shares of Stock purchasable by any one Optionee on any Offering Termination Date shall not exceed 5,000 shares, subject to periodic adjustments in the event of certain changes in the Company's capitalization. Any payroll deductions not applied to the purchase of Stock by reason of the limitation on the maximum number of shares purchasable by each Optionee on the Offering Termination Date, or by reason of the limits set forth in Section 7 above, shall be promptly refunded, without interest.

(b)If the total number of shares which all Optionees elect to purchase, together with any shares already purchased under the Plan, exceeds the total number of shares which may be purchased under the Plan pursuant to Section 6, the number of shares which each Optionee is permitted to purchase shall be decreased pro rata based on the Optionee's accumulated payroll deductions in relation to all accumulated payroll deductions currently being withheld under the Plan. The payroll deductions of each Optionee, to the extent in excess of the aggregate purchase price payable for the Stock pro-rated to such individual, shall be promptly refunded, without interest.

(c)If the number of shares purchasable includes a fraction, such number shall be adjusted to the next smaller whole number and the purchase price shall be adjusted accordingly. Any payroll deductions not applied to the purchase of Stock on any Offering Termination Date because they are not sufficient to purchase a whole share of Stock shall be held for the purchase of Stock on the next Offering Termination Date. Accumulated payroll deductions not withdrawn prior to the Offering Termination Date shall be automatically applied by the Company toward the purchase of whole shares of Stock.

B-5

9.9Delivery of Stock. Except as provided below, within a reasonable time after the Offering Termination Date, the Company shall deliver or cause to be delivered (either by issuing a certificate or certificates for such shares, or by recording such shares in book-entry form in the name of the Optionee) to the Optionee the number of shares purchased by the Optionee under the Plan on that date. The number of shares purchased will be issued or delivered in the Optionee's name only, or if his or her Enrollment Form so specifies, in the name of the employee and another person of legal age as joint tenants with rights of survivorship. Stock shall not be issued or delivered with respect to an Option unless the exercise of such Option and the issuance and delivery of such Stock pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, and the requirements of any stock exchange or automated quotation system upon which the Stock may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance. The Optionee shall have no rights as a shareholder in respect of shares for which he or she has not received a certificate (or as to which the shares have not been recorded in book entry form, registered in his or her name, as the case may be). Notwithstanding the foregoing, the Company may elect to hold for the benefit of the Optionee any shares otherwise to be delivered to the Optionee pursuant to this Section 9.9, or to deliver the same to such agent or agents of the Company for the benefit of the Optionee as the Company may select, for the period during which the transfer of such shares is limited by this Plan and by Section 423 of the Code (and thereafter, until the Optionee requests delivery of such shares of stock in writing). In that event, the Optionee shall have all the rights of a shareholder in the shares so held by the Company or its agent, subject to the notification requirement set forth in Section 9.3, from and after the issuance of the same and the Company or its agent shall adopt reasonable procedures to enable the Optionee to exercise such rights. In the event of the Optionee's death while any shares are so held, such shares shall be delivered to the Optionee's Beneficiary promptly following the Committee's receipt of evidence satisfactory to the Committee of the Optionee's death.

9.10Return of Accumulated Payroll Deduction. In the event that the Optionee or his or her Beneficiary is entitled to the return of accumulated payroll deductions, whether by reason of voluntary withdrawal, termination of employment, retirement, death, or in the event that accumulated payroll deductions exceed the price of the shares purchased (except if for the reason that accumulated payroll deductions were insufficient to cover the purchase price of one whole share of Stock), such amount shall be returned by the Company to the Optionee or the Beneficiary, as the case may be, as soon as practicable following the Offering Termination Date of the Offering Period in which the same were deducted (or, if earlier, the date of such withdrawal from the Plan or termination of employment, retirement or death). Accumulated payroll deductions held by the Company shall not bear interest nor shall the Company be obliged to segregate the same from any of its other assets.

10. No Enlargement of Employment Rights. Neither the establishment or continuation of the Plan, nor the grant of any Option hereunder shall be deemed to give any employee the right to be retained in the employ of the Company or a Related Corporation, or any successor to either, or to interfere with the right of the Company or such Corporation or successor to discharge the employee at any time.

11. Tax Withholding. If, at any time, the Company or any Related Corporation is required, under applicable laws and regulations, to withhold, or to make any deduction of any taxes or take any other action in connection with any exercise of an Option or transfer of shares of Stock, the Company or such Related Corporation shall have the right to deduct from all amounts paid in cash any taxes required by law to be withheld therefrom, and in the case of shares of Stock, the Optionee or his or her estate or Beneficiary shall be required to pay the Company or such Related Corporation shall have the right to taxes required to be withheld, or, in lieu thereof, the Company or such Related Corporation shall have the right to retain, or sell without notice, a sufficient number of shares of Stock to cover the amount required to be withheld, or to make other arrangements with respect to withholding as it shall deem appropriate.

12. Governing Law. The Plan and all Options and actions taken thereunder shall be governed by and construed in accordance with the laws of the state of Washington, without regard to the conflict of laws principles thereof.

Edgar Filing: CTI BIOPHARMA CORP - Form DEF 14A

13. Use of Funds; Interest. All payroll deductions received or held by the Company under the Plan will be included in the general assets of the Company and may be used for any corporate purpose. Notwithstanding anything else contained herein to the contrary, no interest will be paid to any Optionee under the Plan. Amounts payable under this Plan shall be payable in shares of Stock or from the general assets of the Company and, except for any shares that may be reserved on the books of the Company for issuance with respect to the Plan, no special or separate reserve, fund or deposit shall be made to assure payment of amounts that may be due with respect to the Plan. No Optionee or other person will have any right, title or interest in any fund or in any specific asset (including shares of Stock) of the Company or any Related Corporation by reason of any Option hereunder. Neither the Plan nor any document related to or action taken pursuant to the Plan will create, or be construed to create, a trust of any kind or a fiduciary relationship between the Company or any Related Corporation and any Optionee or other person. To the extent that an Optionee or other person acquires a right to receive payment pursuant to the Plan, such right will be no greater than the right of any unsecured general creditor of the Company.

B-6

14. Plan Construction.

14.1Section 16. It is the intent of the Company that transactions involving Options under the Plan (other than "Discretionary Transactions" as that term is defined in Rule 16b-3(b)(1) promulgated under the Exchange Act), in the case of Optionees who are or may be subject to the prohibitions of Section 16 of the Exchange Act, satisfy the requirements for exemption under Rule 16b-3(c) promulgated under Section 16 of the Exchange Act to the maximum extent possible. Notwithstanding the foregoing, the Company shall have no liability to any Optionee for Section 16 consequences of Options or other events with respect to the Plan.

14.2Section 423. Except as the Committee may expressly provide in the case of one or more sub-plans adopted pursuant to Section 4, each separate offering under the Plan and Options granted thereunder are intended to qualify under Section 423 of the Code. Accordingly, as to any Options that are intended to qualify under Section 423 of the Code, all Optionees are to have the same rights and privileges (within the meaning of Section 423(b)(5) of the Code and except as not required thereunder to qualify the Plan under Section 423) under the Plan, subject to differences in compensation among Optionees and subject to the payroll deduction and share limits of this Plan.

14.3Interpretation. If any provision of the Plan or of any Option would otherwise frustrate or conflict with the intents expressed above, that provision to the extent possible shall be interpreted so as to avoid such conflict. If the conflict remains irreconcilable, the Committee may disregard the provision if it concludes that to do so furthers the interest of the Company and is consistent with the purposes of the Plan as to such persons in the circumstances.

15. Severability. If any provision of the Plan shall be held by a court of competent jurisdiction to be invalid and unenforceable, the remaining provisions of the Plan shall continue in effect.

16. Captions and Headings. Captions and headings are given to the sections of the Plan solely as a convenience to facilitate reference. Such captions and headings shall not be deemed in any way material or relevant to the construction of interpretation of the Plan or any provision hereof.

17. No Effect on Other Plans or Corporate Authority. The adoption of the Plan shall not affect any other Company or Related Corporation compensation or incentive plans in effect. Nothing in the Plan will limit or be deemed to limit the authority of the Board or Committee (1) to establish any other forms of incentives or compensation for employees of the Company or any Related Corporation (with or without reference to the Stock), or (2) to grant or assume options (outside the scope of and in addition to those contemplated by the Plan) in connection with any proper corporate purpose; to the extent consistent with any other plan or authority. Benefits received by an Optionee under an Option granted pursuant to the Plan shall not be deemed a part of the Optionee's compensation for purposes of the Company or any Related Corporation, except where the Committee or the Board (or the board of directors of the Related Corporation that sponsors such plan or arrangement, as applicable) expressly otherwise provides or authorizes in writing.

CTI BIOPHARMA CORP. 3101 WESTERN AVENUE, SUITE 600 SEATTLE, WA 98121 VOTE BY INTERNET -www.proxyvote.com Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form. ElECTRONIC DEIIVERY Of fuTuRE PROXY MATERIAIS If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years. VOTE BY PHONE - 1-800-690-6903 Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions. VOTE BY MAII Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. M89822-P68562 CTI BIOPHARMA CORP. To withhold authority to vote for any individual for Withhold for All All All Except nominee(s), mark "For All Except" and write the The Board of Directors recommends you vote fOR number(s) of the nominee(s) on the line below.the following: 1. Election of Directors !!! Nominees: 01) James A. Bianco, M.D. 04) Mary O. Mundinger, DrPH 02) Karen Ignagni 05) Jack W. Singer, M.D. 03) Richard L. Love 06) Frederick W. Telling, Ph.D. The Board of Directors recommends you vote fOR the following proposals: for Against Abstain 2. To approve the Company's 2015 Equity Incentive Plan; ! !! 3. To approve an amendment to the Company's 2007 Employee Stock Purchase Plan; !!! 4. To ratify the selection of Marcum LLP as the Company's independent auditor for the year ending December 31, 2015; !!! 5. To approve, by non-binding advisory vote, the compensation of the Company's named executive officers; and !!! 6. 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 5. Note: In their discretion, the proxies are authorized to vote upon such other business as may properly come before the Annual Meeting and all adjournments and postponements thereof. For address changes/comments, mark here. (see reverse for instructions) ! Please indicate if you plan to attend this meeting. !! Yes No Please sign exactly as your name(s) appear(s) on the stock certificate(s). When shares are held jointly, each person must sign. When signing as attorney, executor, administrator, trustee or guardian, please give full title as such. An authorized person should sign on behalf of corporations, partnerships and associations and give his or her title. Signature [PLEASE SIGN WITHIN BOX] Date Signature (Joint Owners) Date

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice and Proxy Statement and Annual Report are available at www.proxyvote.com. M89823-P68562 CTI BIOPHARMA CORP. Annual Meeting of Shareholders September 23, 2015 10:00 AM Eastern Time This proxy is solicited by the Board of Directors The undersigned shareholder(s), hereby revoking any proxy previously given, hereby appoint(s) James A. Bianco, M.D. and Phillip M. Nudelman, Ph.D., or either of them, as proxies, with full power of substitution, to represent and vote for, and on behalf of, the shareholder(s) the number of shares of common stock of CTI BioPharma Corp. that the shareholder(s) would be entitled to vote if personally present at the Annual Meeting of Shareholders to be held on September 23, 2015, or at any adjournment or postponement thereof. This proxy, when properly executed, will be voted in the manner directed herein by the shareholder(s). If NO DIRECTION IS MADE, THIS PROXY WIll BE VOTED "fOR" EACH ITEM. Whether or not direction is made, each of the named proxies is authorized to vote this proxy in his discretion, upon such other matter or matters that may properly come before the meeting and any postponement(s) or adjournment(s) thereof. Address Changes/Comments:

Address Changes and/or Comments above, please mark corresponding box on the reverse side.) To be signed on reverse side

(If you noted any

ITALIAN PROXY CARD

DELEGA DI VOTO

CTI BioPharma Corp.

Assemblea Annuale degli Azionisti

23 settembre 2015

La presente delega è proposta per conto del Consiglio di Amministrazione

L'/Gli azionista/i il/i cui nominativo/i compare/compaiono sull'allegata certificazione di partecipazione al sistema di gestione accentrata di Monte Titoli S.p.A., rilasciata dall'intermediario ai sensi degli articoli 21 e ss. del Regolamento adottato dalla Banca d'Italia e dalla Consob in data 22 febbraio 2008, con la presente revocando contestualmente ogni procura precedentemente conferita a tal fine, delega/delegano James A. Bianco, M.D. e Phillip M. Nudelman, Ph.D., e ciascuno con il potere di nominare propri sostituti, a rappresentarlo/li nell'Assemblea Annuale degli Azionisti di CTI BioPharma Corp. che si terrà il 23 settembre 2015 ed in ogni successiva convocazione o rinvio della stessa, nonché ad esercitare i diritti di voto connessi alle azioni ordinarie di CTI BioPharma Corp. rispetto alle quali il/i sottoscritto/i avrebbe/avrebbero il potere di votare qualora fosse/fossero personalmente presente/i nell'Assemblea Annuale.

La presente delega, debitamente sottoscritta ed inviata congiuntamente alla certificazione rilasciata dall'intermediario ai sensi degli articoli 21 e ss. del Regolamento adottato dalla Banca d'Italia e dalla Consob in data 22 febbraio 2008, conferisce il potere di votare conformemente alle seguenti istruzioni ricevute dal/i socio/i. NEL CASO IN CUI NON SIA CONTENUTA ALCUNA ISTRUZIONE, LA PRESENTE DELEGA CONFERISCE IL POTERE DI VOTARE "A FAVORE" DI CIASCUNA PROPOSTA. Sia che siano state fornite istruzioni sia che non lo siano, ciascuno dei soggetti delegati è autorizzato ad esercitare a sua discrezione il diritto di voto conferito in virtù della presente delega in ogni altra materia che dovesse essere propriamente presentata in Assemblea o in ogni successiva convocazione o rinvio della stessa.

L'/Gli Azionista/i fornisce/forniscono le seguenti istruzioni di voto:

LA PRESENTE DELEGA DI VOTO È VALIDA UNICAMENTE SE SOTTOSCRITTA E DATATA

Il Consiglio di Amministrazione raccomanda di votare A FAVORE relativamente alle seguenti proposte:

Approvazione della nomina, per la durata di un anno, dei seguenti sei amministratori per il Consiglio di Amministrazione: DI TUTTI

A FAVORE DELEGA DI TUTTI PER TUTTI ECCETTO

NEGO LA A FAVORE Al fine di negare il conferimento della delega di voto in relazione ad uno o più candidati, s prega di segnare "A favore di tutti eccetto" e indicare il/i numero/i del/i candidato/i sulla linea sottostante.

| 01) James A. Bianco, | | | |
|--|----------|--------|----------|
| M.D 04) Mary O. | | | |
| Mundinger DrPH | | | |
| 02) Karen | | | |
| Ignagni 05) Jack | | | |
| W. Singer M.D. | | | |
| 03) Frederick W. Telling, | | | |
| Ph.D. 06) Frederick W. | | | |
| Telling, Ph.D. | | | |
| Approvazione del Piano di Incentivo Azionario | A FAVORE | CONTRO | ASTENUTO |
| 2015 della Società. | | | |
| | | •• | |
| Approvazione di una modifica al Piano di | A FAVORE | CONTRO | ASTENUTO |
| Acquisto Azioni per i Dipendenti 2007 della | | | |
| Società. | •• | | |
| Ratifica della nomina di Marcum LLP quale | A FAVORE | CONTRO | ASTENUTO |
| società di revisione indipendente della Società | | | |
| per l'esercizio che si concluderà il 31 dicembre | | | •• |
| 2015. | | | |
| | | | |
| Approvazione, attraverso un voto a carattere | A FAVORE | CONTRO | ASTENUTO |
| consultivo non vincolante, della remunerazione | | | |
| di determinati dirigenti esecutivi della Società | | | |
| (named executive officers) ¹ . | | | |
| Approvazione dell'aggiornamento | A FAVORE | CONTRO | ASTENUTO |
| dell'Assemblea Annuale, se necessario o | | CONTRO | |
| appropriato, al fine di sollecitare ulteriori | | | |
| deleghe qualora vi siano voti insufficienti nel | | | |
| momento in cui l'Assemblea Annuale sia | | | |
| chiamata a deliberare su alcuna delle Proposte | | | |
| da 1 a 5. | | | |

¹ Così come definiti e identificati ai sensi del punto 402 della Regolamentazione S-K della normativa federale statunitense in materia di strumenti finanziari.

ISTRUZIONI DI VOTO

(a)Firmare e datare la presente delega nell'apposito spazio qui sotto.

- (b) Trasmettere SIA la delega firmata SIA la certificazione rilasciata dall'intermediario ai sensi degli articoli
 21 e ss. del Regolamento adottato dalla Banca d'Italia e dalla Consob in data 22 febbraio 2008 (o una copia integrale della stessa) al seguente indirizzo, o per posta o via fax:
- CTI BioPharma Corp.

Attn: Corporate Secretary

3101 Western Ave., Suite 600

Seattle, WA 98121

FAX: +1 (206) 284-6206

- (c)È NECESSARIO allegare alla presente delega la certificazione rilasciata dall'intermediario ai sensi degli articoli 21 e ss. del Regolamento adottato dalla Banca d'Italia e dalla Consob in data 22 febbraio 2008 (o una copia integrale della stessa) perché il proprio voto venga computato.
- (d) Scadenza: la delega dovrà essere ricevuta al suddetto indirizzo (per posta o per fax) prima della chiusura delle votazioni in data 23 settembre 2015. Qualora provvediate all'invio della documentazione per posta successivamente al 15 settembre 2015, si consiglia vivamente di inviare la stessa anche via fax al suddetto numero.

Tutte le altre deleghe di voto precedentemente conferite dal sottoscritto in relazione alle azioni ordinarie di CTI BioPharma Corp., in base alle quali il sottoscritto avrebbe il potere di votare nell'Assemblea Annuale o in ogni sua ulteriore convocazione o rinvio sono espressamente revocate.

Siete pregati di sottoscrivere la presente delega in modo leggibile, indicando il Vostro nominativo, corrispondente a quello riportato nella certificazione rilasciata dall'intermediario ai sensi degli articoli 21 e ss. del Regolamento adottato dalla Banca d'Italia e dalla Consob in data 22 febbraio 2008. Qualora l'azione sia cointestata, ciascuno dei cointestatari dovrà sottoscrivere la presente delega. Se si sottoscrive in qualità di procuratore, esecutore, curatore, fiduciario o tutore occorre specificare tale titolo. Le società di capitali, società di persone e associazioni sottoscrivono tramite un legale rappresentante che dovrà indicare tale titolo.

| FIRMA (si prega di firmare nell'apposito spazio) | DATA |
|--|------|
| FIRMA (COINTESTATARI) | DATA |

ITALIAN PROXY CARD (English translation)

CTI BioPharma Corp.

Annual Meeting of the Shareholders

September 23, 2015

This Proxy is Solicited on Behalf of the Board of Directors

The shareholder(s) whose name(s) appear(s) on the enclosed certifications(s) of participation in the Central Depository System of Monte Titoli S.p.A., issued by authorized intermediaries pursuant to Section 21 (and the following sections) of the Regulation enacted by the Bank of Italy and CONSOB on February 22, 2008, hereby revoking any proxy previously given, hereby appoint(s) James A. Bianco, M.D. and Phillip M. Nudelman, Ph.D., and each of them, as proxies, with full power of substitution, to represent and vote for, and on behalf of, the shareholder(s), the number of shares of common stock of CTI BioPharma Corp. that the shareholder(s) would be entitled to vote if personally present at the Annual Meeting of Shareholders to be held on September 23, 2015, or at any adjournment or postponement thereof.

This proxy, when properly executed and submitted together with your certification issued by the authorized intermediaries pursuant to Section 21 (and the following sections) of the Regulation enacted by the Bank of Italy and CONSOB on February 22, 2008, will be voted in the manner directed herein by the shareholder(s). IF NO DIRECTION IS MADE, THIS PROXY WILL BE VOTED "FOR" EACH ITEM. Whether or not direction is made, each of the named proxies is authorized to vote this proxy in his discretion, upon such other matter or matters that may properly come before the meeting and any postponement(s) or adjournment(s) thereof.

The shareholder(s) direct(s) that this proxy be voted as follows:

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED

The Board of Directors recommends you vote FOR the following proposals:

| (1) | Approval to elect the follo the Board of Directors to a | C | FOR | WITHHOLD | FOR ALL | To withhold authority to vote for any individual nominee(s), mark |
|-----|--|---------------------------------------|-----|----------|---------|--|
| | | , , , , , , , , , , , , , , , , , , , | ALL | ALL | EXCEPT | "For All Except" and write the number(s) of the nominee(s) on the |
| | | | | | | line below. |
| | 01) James A. Bianco, | | | | | |
| | M.D. | 04) Mary O. | | | | |
| | Mundinger DrPH | | | | | |

02) Karen Ignagni 05) Jack W. Singer M.D.

03) Richard L. Love 06) Frederick

193

W. Telling, Ph.D.

| (2) | Approval of the Company's 2015 Equity Incentive Plan. | FOR | AGAINST | ABSTAIN |
|-----|---|-------------|-----------------|-----------------|
| (3) | Approval of an amendment to the Company's 2007 Employee Stock Purchase Plan. | FOR | AGAINST | ABSTAIN |
| (4) | To ratify the selection of Marcum LLP as our independent auditors for the year ending December 31, 2015. | FOR | AGAINST | ABSTAIN |
| (5) | To approve, by non-binding advisory vote, the compensation of the Company's named executive officers ¹ . | FOR | AGAINST | ABSTAIN |
| (6) | 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 5. | - | AGAINST | ABSTAIN |

¹ As they are defined and identified according to Item 402 of Regulation S-K under U.S. federal securities regulations.

VOTING INSTRUCTIONS

(a)Please sign and date this card in the space provided below.

(b)Please submit BOTH this signed proxy card AND the certification issued by the authorized intermediaries pursuant to Section 21 (and the following sections) of the Regulation enacted by the Bank of Italy and CONSOB on February 22, 2008 (or a complete copy) to the following address either by mail or by fax: CTI BioPharma Corp.

- Attn: Corporate Secretary
- 3101 Western Ave., Suite 600

Seattle, WA 98121

FAX: 00 +1 (206) 284-6206

- (c) You MUST include the certification issued by the authorized intermediaries pursuant to Section 21 (and the following sections) of the Regulation enacted by the Bank of Italy and CONSOB on February 22, 2008 (or a complete copy) together with this proxy card for your vote to be counted.
- (d)Deadline: Your proxy card must be received at the above address (by mail or fax) prior to the adjournment of the Annual Meeting on September 23, 2015. If you are depositing your vote in the mail after September 15, 2015, we recommend that you also submit the papers by fax to the above number.

All other proxies heretofore given by the undersigned to vote shares of stock of CTI BioPharma Corp., which the undersigned would be entitled to vote if personally present at the Annual Meeting or any adjournment or postponement thereof, are hereby expressly revoked.

Please sign exactly as your name(s) appear(s) on the stock certifications(s) issued by the authorized intermediaries pursuant to Section 21 (and the following sections) of the Regulation enacted by the Bank of Italy and CONSOB on February 22, 2008. When shares are held jointly, each person must sign. When signing as attorney, executor, administrator, trustee or guardian, please give full title as such. An authorized person should sign on behalf of corporations, partnerships and associations and give his or her title.

| SIGNATURE (PLEASE SIGN WITHIN BOX) | DATE |
|------------------------------------|------|
| SIGNATURE (JOINT OWNERS) | DATE |