

CTI BIOPHARMA CORP

Form DEF 14A

March 30, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

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

Filed by the Registrant: Filed by a Party other than the Registrant:

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-12

CTI BioPharma Corp.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of filing fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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

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

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

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

(1) Amount Previously Paid:

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(4) Date Filed:

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CTI BIOPHARMA CORP.

Notice of Annual Meeting of Stockholders May 16, 2018

NOTICE OF 2018 ANNUAL MEETING OF STOCKHOLDERS

Location:

Company's Principal Executive Offices Date: May 16, 2018

3101 Western Avenue, Suite 800 Time: 10:00 a.m. Pacific Time

Seattle, Washington 98121, 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;

To approve an amendment to the Company's Certificate of Incorporation to increase the total number of authorized shares from 81,533,333 to 101,533,333 and to increase the total number of authorized shares of our common stock from 81,500,000 to 101,500,000;

(3) To approve the Company's Amended and Restated 2017 Equity Incentive Plan to increase the share pool;

(4) To ratify the selection of Marcum LLP as the Company's independent auditor for the year ending December 31, 2018;

(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 the foregoing items 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 March 22, 2018.

YOUR VOTE IS VERY IMPORTANT. Whether or not you plan to attend the 2018 Annual Meeting of Stockholders, 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

Adam R. Craig

Chief Executive Officer

Seattle, Washington

March 30, 2018

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CTI BIOPHARMA CORP.

3101 Western Avenue, Suite 800

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

Date and Time:

May 16, 2018

10:00 a.m. Pacific Time

Location:

Company’s Principal Executive Offices,

3101 Western Avenue, Suite 800

Seattle, Washington 98121, U.S.A.

Summary of Voting Matters

|                                                                                                                 | Board Vote<br>Recommendation | Page<br>Reference |
|-----------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|
| 1. Approval of proposal to elect directors to the Board of Directors (the “Board”) to serve one-year terms.     | FOR ALL Nominees             | <u>5</u>          |
| 2. Approval of an amendment to the Company’s Certificate of Incorporation (the “Certificate of Incorporation”). | FOR                          | <u>13</u>         |
| 3. Approval of the Company’s Amended and Restated 2017 Equity Incentive Plan.                                   | FOR                          | <u>17</u>         |
| 4. Ratification of selection of Marcum LLP as our independent auditor for the year ending December 31, 2018.    | FOR                          | <u>27</u>         |
| 5. Approval, by non-binding advisory vote, of the compensation of the Company’s named executive officers.       | FOR                          | <u>30</u>         |
| 6. Approval of adjournment of the Annual Meeting, if necessary or appropriate.                                  | FOR                          | <u>32</u>         |

## 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, stockholders will be asked to:

1. elect directors to the Company's Board to serve one-year terms ("Proposal 1");
2. approve an amendment to the Certificate of Incorporation ("Proposal 2");
3. approve the Company's Amended and Restated 2017 Equity Incentive Plan ("Proposal 3");
4. ratify the selection of Marcum LLP as the Company's independent auditor for the year ending December 31, 2018 ("Proposal 4");
5. approve, by non-binding advisory vote, the compensation of the Company's named executive officers ("Proposal 5"); approve the adjournment of the Annual Meeting, if necessary or appropriate, to solicit additional proxies if there are
6. 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.

Stockholder 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 Delaware.

### Delivery of Proxy Materials

On or about April 3, 2018, proxy materials for the Annual Meeting, including this Proxy Statement, are being made available to stockholders entitled to vote at the Annual Meeting. We are utilizing the SEC rules that allow issuers to furnish proxy materials to their stockholders 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 stockholders 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, 2017 (the "2017 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 stockholders can receive a paper copy of the proxy materials, including this Proxy Statement, the 2017 Annual Report, and a form of proxy card or voting instruction card. Stockholders who do not receive a Notice, such as stockholders who have previously requested to receive paper copies of proxy materials, will receive a paper copy of the proxy materials by mail.

### 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.

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

Only stockholders of record on our stockholder books at the close of business on March 22, 2018 (the "Record Date") will be entitled to notice of, and to vote at, the Annual Meeting. Each holder of record of our common stock, par value \$0.001 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 57,981,110 shares of the Company's common stock issued and outstanding and 12,575 shares of the Company's Series O Convertible Preferred Stock, par value \$0.001 per share issued and outstanding.

### Dissenters Rights or Appraisal Rights

Pursuant to applicable Delaware 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 stockholder's affirmative choice to decline to vote on a proposal. Properly executed proxy cards that are marked "abstain" or "withhold all" on any proposal, as applicable, will be treated as abstentions for that proposal.

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

#### Quorum

A quorum of stockholders must be established at the Annual Meeting in order to transact business at the Annual Meeting. Under the Delaware General Corporation Law and pursuant to our Bylaws and Certificate of Incorporation, the presence in person or by proxy of the holders of at least one-third of the votes entitled to be cast at the Annual Meeting constitutes a quorum; provided that where a separate vote by a class or series is required, a majority shares of such class or series constitutes a quorum. Therefore, we will need at least 19,327,037 shares of our common stock present in person, by telephone or by proxy at the Annual Meeting for quorum to be established.

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

#### Abstentions and broker non-votes

Abstentions and broker non-votes will be counted in determining whether a quorum is present.

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

The seven nominees for director seats who receive the largest number of 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 Certificate of Incorporation.

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

The affirmative vote of the holders of majority of the outstanding shares of our common stock entitled to vote on proposal 2 is required to approve proposal 2. Abstentions and broker non-votes will have the effect of voting "AGAINST" proposal 2.

Proposals 1, 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, 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, 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 2, 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 2, 4, and 6, brokers will be permitted to exercise their discretionary authority to vote for such proposals.

### Methods of Voting

#### Beneficial Stockholders

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

#### Registered Stockholders

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](http://www.proxyvote.com), by calling 1-800-690-6903 or by signing and returning your proxy card. To vote by internet or telephone, you will need your 16-digit voting control number, which can be found on your proxy card or Notice. If you return a signed proxy card but do not provide voting instructions for some or all of the matters to be voted on, your shares will be voted on all uninstructed matters in accordance with the recommendations of the Board. You may also vote your shares in person at the Annual Meeting. If you choose to do so, you can vote using the ballot that will be provided at the Annual Meeting.

#### Deadline to Vote Shares

If you are a stockholder of record who holds shares in record name, your proxy must be received by telephone or the internet by 11:59 p.m. Eastern Time on May 15, 2018 in order for your shares to be voted at the Annual Meeting. You also have the option of completing, signing, dating and returning the proxy card enclosed with the Proxy Statement so that it is received prior to the adjournment of the Annual Meeting on May 16, 2018 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.

#### 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 stockholder of record executing a proxy has the power to revoke it at any time prior to the voting thereof on any matter by delivering written notice of revocation of your proxy to our Secretary, Bruce J. Seeley, at our principal executive offices, or by executing and delivering another proxy dated as of a later date or by voting in person at the Annual Meeting. For shares held through a broker, bank or other nominee, you may change your vote by submitting new voting instructions to your broker, bank or other nominee, or by obtaining a legal proxy from your broker, bank or other nominee giving you the right to vote your shares at the Annual Meeting. Attendance at the Annual Meeting will not, by itself, revoke a proxy.

#### 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 of the Annual Meeting.

**PROPOSAL 1: ELECTION OF DIRECTORS****Summary**

Under our Bylaws, the number of directors constituting the entire Board may be decreased or increased by majority action of either the Board or the stockholders. 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 stockholders' meeting at which directors are elected. At such meeting, the director will stand for election until his or her successor is elected. The number of directors has been fixed at seven by the Board.

**Nominees for Election as Directors**

Dr. Craig, Dr. Fischer, Mr. Metzger, Dr. Parkinson, Mr. Perry, Dr. Telling, and Dr. Tuckson have each been nominated by the Board for election at the Annual Meeting for a one-year term, each expiring at the annual meeting of stockholders held in 2019 (the "2019 Annual Meeting"). All of our directors up for election to the Board are incumbent directors, except for Dr. Parkinson and Dr. Fischer, who joined the Board in June 2017 and July 2017, respectively. If elected, each nominee will hold office until the later of the expiration of his or her term or until his or her successor is elected. It is intended that the accompanying proxy will be voted for the election as directors of the aforementioned persons unless the proxy contains contrary instructions.

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

**Vote Required and Board Recommendation**

The seven 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 Certificate of Incorporation. Abstentions and broker non-votes will have no effect on the outcome of the election of directors.

**THE BOARD RECOMMENDS****A VOTE "FOR ALL" OF THE NOMINEES NAMED ABOVE.****Information about the Current Directors and Nominees**

The table below provides biographical information as of March 21, 2018 for each of our directors and nominees.

| Name                                  | Age | Director Since |
|---------------------------------------|-----|----------------|
| Adam R. Craig, M.D., Ph.D.            | 52  | 2017           |
| Laurent Fischer, M.D.(2)(3)(4)        | 54  | 2017           |
| Richard L. Love(2)(3)                 | 74  | 2007           |
| Michael A. Metzger(1)                 | 47  | 2017           |
| David Parkinson, M.D.(2)              | 67  | 2017           |
| Matthew D. Perry(2)                   | 45  | 2016           |
| Frederick W. Telling, Ph.D.(1)(3)     | 66  | 2006           |
| Reed V. Tuckson, M.D., F.A.C.P.(1)(3) | 67  | 2011           |

(1)Member of the Audit Committee.

(2)Member of the Compensation Committee.

(3)Member of the Nominating and Governance Committee.

(4) Chairman of the Board.

Nominees for Election as Director at the Annual Meeting

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

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

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

Dr. Fischer has been one of our directors since July 2017. Dr. Fischer was appointed Senior Vice President, Head of the Liver Therapeutic Area at Allergan following the acquisition of Tobira Therapeutics. Dr. Fischer has served as a Senior Advisor on the Frazier Healthcare Partners' Life Sciences team since March 2017. He was previously chairman and CEO of Jennerex, Inc., a company with a first-in-class oncolytic immunotherapy for Liver Cancer acquired for \$150 million by Sillajen. He was co-founder, president and CEO of Ocera Therapeutics and held senior positions at DuPont-Merck, DuPont Pharmaceuticals, and Hoffmann-La Roche in liver disease, virology and oncology. Dr. Fischer received his undergraduate degree from the University of Geneva and his medical degree from the Geneva Medical School, Switzerland.

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

Mr. Metzger has been one of our directors since January 2017. Mr. Metzger is currently president and chief operating officer of Syndax Pharmaceuticals, Inc., a publicly traded immuno-oncology biopharmaceutical company. Mr. Metzger served as president and chief executive officer of Regado Biosciences, Inc., a former publicly traded biotechnology company, from 2013 to 2015, where he oversaw the company's successful merger with Tobira Therapeutics, Inc. in 2015 and acted as an advisor to Tobira during its subsequent sale to Allergan in 2016.

Previously, Mr. Metzger served as executive vice president and chief operating officer at Mersana Therapeutics, a privately held biotechnology company developing novel immunoconjugate therapies for cancer, from 2011 to 2013 and in senior business development positions including leading mergers and acquisitions at Forest Laboratories, Inc. from 2006 to 2011. Mr. Metzger served as vice president corporate development at Onconova Therapeutics, Inc., from 2001 until 2006, and was a managing director at MESA Partners, Inc., a venture capital firm, from 1997 to 2001. Mr. Metzger holds a B.A. from George Washington University and an M.B.A. in Finance from the New York University Stern School of Business.

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

Dr. Parkinson has been one of our directors since June 2017. Dr. Parkinson has served as President and Chief Executive Officer Essa Pharmaceuticals, Inc. since 2016. Dr. Parkinson has served as a venture partner at New Enterprise Associates (NEA), Inc. since 2012 and in 2016 moved to the role of venture advisor to NEA. From 2007 until 2012, Dr. Parkinson served as President and CEO of Nodality, a biotechnology company focused on the biological characterization of signaling pathways in patients with malignancy to enable more effective therapeutics development and clinical decision-making. Dr. Parkinson has previously led oncology clinical development activities at Novartis (1997-2003), Amgen (2003-2006) and Biogen Idec (2006-2007). He worked at the National Cancer Institute from 1990 to 1997, serving as Chief of the Investigational Drug Branch, and then as Acting Associate

Director of the Cancer Therapy Evaluation Program (CTEP). Dr. Parkinson is a past Chairman of the Food & Drug Administration (FDA) Biologics Advisory Committee, has also served on the FDA's Science Board, and is a recipient of the FDA's Cody Medal. He has held academic positions both at Tufts and at the University of Texas MD Anderson Cancer Center, and has authored over 100 peer-reviewed publications.

Dr. Parkinson's business and management experience in the biopharmaceutical and healthcare industry, as well as his experience at the FDA, were the primary qualifications that have led the Board to conclude that he should serve as a director of the Company.

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

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

Dr. 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 Orogenics Inc. and on the board of directors of Aequus Biopharma, Inc., our majority-owned subsidiary ("Aequus"). Dr. Telling received his B.A. from Hamilton College and his Masters of Industrial and Labor Relations and Ph.D. in Economics and Public Policy from Cornell University.

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

Dr. Tuckson has been one of our directors since September 2011. Dr. Tuckson serves as the Managing Director of Tuckson Health Connections, a private consulting company. From December 2006 to March 2014, Dr. Tuckson served as the Executive Vice President and Chief of Medical Affairs of UnitedHealth Group and, from November 2000 to December 2006, he served as Senior Vice President of Clinical Affairs of UnitedHealth Group. Dr. Tuckson also served as Senior Vice President, Professional 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 Policy, Project Sunshine, LifePoint Health, InformGenomics, and on the Advisory Board of the National Institute of Health Clinical Center and on several committees of the National Academy of Medicine. Dr. Tuckson received his B.S. in zoology from Howard University and his M.D. from the Georgetown University School of Medicine, and he completed the Hospital of the University of Pennsylvania's General Internal Medicine Residency and Fellowship programs.

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

#### Board and Committee Meetings

The Board held nineteen meetings during the year ended December 31, 2017. All directors who served during fiscal 2017 attended at least 75% of the total number of meetings of the Board and of all committees of the Board on which each director served that year. Independent directors of the Board meet in regularly scheduled sessions without management. Our policy is to encourage attendance at the Annual Meeting. Two of the directors in office at the time of our 2017 Annual Meeting were in attendance at such meeting.

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

#### Audit Committee

The Company has a separately-designated standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The Audit Committee has responsibility for assisting the Board in overseeing our accounting and financial reporting processes and audits of our financial statements. The Audit Committee assists the Board in oversight and monitoring of (i) the integrity of our financial statements, (ii) our compliance with legal and regulatory requirements, (iii) the independent auditor's qualifications, independence and performance and (iv) our internal controls over financial reporting and systems of disclosure controls and procedures. The Audit Committee has a written charter, which is available on our website at <http://www.ctibiopharma.com>. 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 nine meetings during the year ended December 31, 2017. The Audit Committee currently consists of three non-employee directors: Dr. Telling (Chairperson), Mr. Metzger, and Dr. Tuckson.

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

#### Compensation Committee

The Compensation Committee has responsibility for:

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

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

- administering our equity compensation plans; and

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

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

The Compensation Committee held nine meetings during the year ended December 31, 2017. The Compensation Committee currently consists of four non-employee directors: Dr. David Parkinson (Chairperson), Dr. Fischer, Mr. Love, and Mr. Perry, each of whom meets the requirements of independence as set forth in the rules and regulations promulgated by the SEC and the NASDAQ Stock Market Rules. The Compensation Committee has a written charter, which is available on our website at <http://www.ctibiopharma.com>. For a discussion of the processes and procedures for determining compensation for our named executive officers, please see “Compensation Discussion and Analysis.” In 2017, the Compensation Committee engaged Frederic W. Cook & Co., Inc. (“FW Cook”), an independent compensation consultant, to provide compensation consulting services with regard to the compensation of our executive officers and directors. For more information regarding the services provided by FW Cook, please see “Compensation Discussion and Analysis.”

#### Nominating and Governance Committee

The Nominating and Governance Committee is responsible for establishing standards and processes so that the Board can be properly constituted to meet its fiduciary obligations to us and our stockholders and so that we have and follow appropriate governance standards. The Nominating and Governance Committee is responsible for reviewing with the Board, on an annual basis, the desired Board qualifications, expertise, characteristics and other factors for potential consideration, which review includes consideration of diversity, skills and experience. The Nominating and Governance Committee is responsible for conducting searches for potential Board members with corresponding attributes and evaluating and proposing nominees for election to the Board. Our Corporate Governance Guidelines set forth the qualifications that should be met by director nominees, which include, but are not limited to, the following:

(i) a background that demonstrates an understanding of the business, financial affairs and complexities of our business, as well as general health care, science and technology matters, (ii) fundamental qualities such as intelligence, honesty, perceptiveness, good judgment, maturity, high ethics and standards, integrity, fairness and responsibility, (iii) a genuine interest in our business and recognition that each director is accountable to all stockholders, (iv) a willingness to invest significant time in reviewing detailed and technical background information in preparation for Board meetings, (v) experience in a senior position in a complex organization, (vi) no legal impediment that would interfere with the duty of loyalty to the Company and our stockholders, (vii) the ability and willingness to spend the time required to function effectively as a director in our industry, which requires ad-hoc Board and committee meetings, (viii) be compatible and able to work well with the other directors, management and legal counsel, and (ix) possesses independent opinions and a willingness to state them in a constructive manner. Each of the nominees for election as a director at the Annual Meeting holds or has held senior executive positions in, and/or has experience serving on the boards of directors and board committees of, large, complex organizations and has

operating experience that meets this objective. In these positions, they have also gained experience in core management skills, such as strategic and financial planning, public company financial reporting, corporate governance, risk management and leadership development.

The Nominating and Governance Committee also believes that each of the nominees and current directors has other key attributes that are important to an effective board: integrity and demonstrated high ethical standards; sound judgment; analytical skills; the ability

to engage management and each other in a constructive and collaborative fashion; diversity of origin, background, experience and thought; and the commitment to devote significant time and energy to service on the Board and its committees.

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

The Nominating and Governance Committee is responsible for recommending director nominees to the Board for its consideration, while the Board is ultimately responsible for determining the Board slate for election by stockholders 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 stockholders at the Annual Meeting.

The Nominating and Governance Committee held four meetings during the year ended December 31, 2017. The Nominating and Governance Committee currently consists of four non-employee directors: Dr. Tuckson (Chairperson), Dr. Fischer, Mr. Love, and Dr. Telling, 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>.

#### Attributes and Independence

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

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

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

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

▲ All of the non-management directors of the Board are independent under the NASDAQ standard. The independent directors are: Laurent Fischer, M.D., Richard L. Love, Michael A. Metzger, David Parkinson, M.D., Matthew D.

Perry, Frederick W. Telling, Ph.D. and Reed V. Tuckson, M.D., F.A.C.P.

Adam R. Craig, M.D., Ph.D. is not independent by virtue of his position as President and Chief Executive Officer of the Company.

Other than as described above, in 2017, 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. Fischer has served as the Chairman of the Board since September 2017.

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

#### Annual Board and Committee Performance Evaluations

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

#### Risk Oversight

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

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

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

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

#### Code of Ethics

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

Both codes of ethics are available on our website at <http://www.ctibiopharma.com>. Stockholders 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 800, Seattle, Washington 98121, U.S.A. Any amendments to, or waivers from, our code of ethics for our directors and executive officers will be posted on our website at

<http://www.ctibiopharma.com> to the extent required by applicable SEC and NASDAQ rules.

Corporate Governance Guidelines

We have adopted Corporate Governance Guidelines, which are available on our website at

<http://www.ctibiopharma.com>. Stockholders may request a free copy of the Corporate Governance Guidelines at the address and phone number set forth above.

### Stockholder Proposals and Recommendations

**Proposals for Inclusion in Proxy Materials.** Stockholder proposals submitted pursuant to Rule 14a-8 of the Exchange Act and intended for inclusion in the proxy statement related to the 2019 Annual Meeting should be sent to our Secretary at 3101 Western Avenue, Suite 800, Seattle, Washington 98121, U.S.A. and must be received by November 28, 2018. Stockholders interested in submitting a proposal for inclusion in the proxy materials for our 2019 Annual Meeting must follow the procedures prescribed in Rule 14a-8 under the Exchange Act.

**Nomination of Director Candidates and Proposals Not Intended for Inclusion in Proxy Materials.** If you intend to nominate an individual for election to our Board at our 2019 Annual Meeting or wish to present a proposal at the 2019 Annual Meeting but do not intend for such proposal to be included in the proxy statement for such meeting, our Bylaws require that, among other things, stockholders give written notice of the nomination or proposal to our Secretary at our principal executive offices no less than the close of business on February 15, 2019 (the 90th day prior to the first anniversary of the Annual Meeting) and no more than the close of business on January 16, 2019 (the 120th day prior to the first anniversary of the Annual Meeting). Notwithstanding the foregoing, in the event that we change the date of the 2019 Annual Meeting to a date that is more than 30 days before or after the date one year from the date of the Annual Meeting, written notice by a stockholder must be received by later than the close of business on the tenth day following the date on which the public announcement is first made of the date of the 2019 Annual Meeting. Stockholder proposals not intended to be included in the proxy statement or nominations for director candidates that do not meet the notice requirements set forth above and further described in Sections 2.13 and 2.14 of Article II of our Bylaws will not be acted upon at the 2019 Annual Meeting.

As set forth in our Bylaws, each notice of a director nomination should contain the following information: (i) the name and address of the stockholder who intends to make the nomination and of the person or persons to be nominated; (ii) a representation that the stockholder 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 stockholder 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 stockholder; (iv) such other information regarding each nominee proposed by such stockholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the SEC had the 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 stockholder proposal (whether or not to be included in the proxy statement) should contain the following information: (i) the address of the stockholder who intends to make the proposal(s); (ii) a representation that the stockholder is a holder of record of stock of the Company entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to vote for the proposal(s); and (iii) such other information regarding each proposal as would be required to be included in a proxy statement filed pursuant to the proxy rules of the SEC. The Chairman of the meeting may in his discretion determine and declare to the meeting that a proposal was not made in accordance with the foregoing procedures, and if so determined, he shall so declare to the meeting and the defective proposal will be disregarded.

**Stockholder Recommendations.** A stockholder may recommend a director to the Nominating and Governance Committee by delivering a written notice to our Secretary at our principal executive offices and including in the notice the items required by Section 2.13 of Article II of our Bylaws as well as (i) a comprehensive written resume of the nominee's business experience and background, and (ii) the consent of the director candidate to serve as a member of the Board if elected. Properly communicated stockholder recommendations will be considered in the same manner as recommendations received from other sources and using the same criteria as used for any other director candidate. See "Nominating and Governance Committee" above for additional information.

### Communicating Concerns to Directors

Stockholders who wish to communicate with our directors to report complaints or concerns related to accounting, internal accounting controls or auditing may do so using the Audit Committee procedures for the receipt of such communication. The procedures allow submitting the complaint or concern either online or telephonically, with a

more detailed description of the procedures set forth in our Whistleblower Policy, which is contained in our Code of Business Conduct and Ethics available on our website at [http:// www.ctibiopharma.com](http://www.ctibiopharma.com).

Stockholders and other interested parties may communicate with the Board and the Chairman on other matters by writing to Dr. Fischer, c/o CTI BioPharma Corp., Legal Department, 3101 Western Avenue, Suite 800, 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. Fischer 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. Fischer. In addition, material that is threatening or similarly unsuitable will not be forwarded to Dr. Fischer. 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. Fischer 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. Fischer 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. Fischer, he will decide in his own discretion whether to circulate them to other members of the Board.

PROPOSAL 2:

APPROVAL OF AN AMENDMENT TO THE COMPANY'S CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES

Summary

On March 21, 2018, our Board approved, subject to stockholder approval, an amendment (the "Amendment") to our Certificate of Incorporation to (a) increase the total number of authorized shares from 81,533,333 to 101,533,333; and (b) increase the total number of authorized shares of common stock from 81,500,000 to 101,500,000 shares. Pursuant to this Proposal 2, our stockholders are being asked to approve the Amendment.

The proposed Amendment would replace Section 4.1 of Article IV of our Certificate of Incorporation with the following language:

"ARTICLE IV AUTHORIZED CAPITAL STOCK

Classes. The total number of shares of capital stock which the Corporation shall have authority to issue is One Hundred One Million Five Hundred Thirty-Three Thousand Three Hundred Thirty-Three (101,533,333), including One Hundred One Million Five Hundred Thousand (101,500,000) shares of common stock, par value \$0.001 per share (the Common Stock), and Thirty-Three Thousand Three Hundred Thirty-Three (33,333) shares of preferred stock, par value \$0.001 per share (the Preferred Stock), of which 12,575 shall initially be designated as the Series O Preferred Stock (the Series O Preferred Stock), and 15,000 shall initially be designated as the Series ZZ Junior Participating Cumulative Preferred Stock (the Series ZZ Preferred Stock). Subject to the rights of the holder of any series of Preferred Stock, the number of authorized shares of any of the Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority in voting power of the stock of the Corporation entitled to vote thereon irrespective of the provisions of Section 242(b)(2) of the DGCL, and no vote of the holders of any of the Common Stock or Preferred Stock voting separately as a class shall be required therefor."

Purpose and Rationale for Amendment

The Board believes it is in the best interest of the Company to increase the number of authorized shares of common stock. Article IV of our Certificate of Incorporation currently authorizes us to issue up to 81,533,333 shares of stock, 81,500,000 of which are designated as common stock, par value \$0.001 per share, and 33,333 shares of which are designated as preferred stock, par value \$0.001 per share. As of February 20, 2018, there were 57,982,860 shares of common stock issued and outstanding, 7,026,632 shares of common stock were reserved for issuance under our equity compensation plans, 219,379 shares of common stock were reserved for issuance upon exercise of outstanding warrants, 183,527 shares of common stock were reserved for issuance under our employee stock purchase plan, 1 share of common stock was reserved for issuance upon exercise of outstanding restricted share rights and 8,383,333 shares of common stock were reserved for issuance upon conversion of outstanding convertible preferred stock. As a result, currently, there are only approximately 7,704,268 shares of authorized common stock available for future issuance under our existing Certificate of Incorporation for other corporate purposes.

Adoption of the Amendment would increase the number of authorized shares of common stock by Twenty Million (20,000,000). Our common stock is all of a single class, with equal voting, distribution, liquidation and other rights. The additional shares of common stock to be authorized by adoption of the Amendment would have rights identical to our currently authorized and outstanding shares of common stock. The Amendment would not affect the rights of the holders of currently outstanding common stock, except to the extent additional shares are actually issued, which may have certain effects, including dilution of the earnings per share of current holders of common stock. The Amendment would not change the authorized number of shares of preferred stock.

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

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

- financing transactions, such as public or private offerings of common stock or derivative securities;
- our equity incentive plans and employee stock purchase plan;
- debt, warrant or other equity restructuring or refinancing transactions, such as debt or warrant exchanges or offerings of new convertible debt or modifications to existing securities, or as payments of interest on debt securities;
- acquisitions, strategic partnerships, collaborations, joint ventures, restructurings, divestitures, business combinations and strategic investments;
- our Shareholder Rights Agreement, dated December 28, 2009, as amended (the “Rights Plan”);
- corporate transactions, such as stock splits or stock dividends; and
- other corporate purposes that have not yet been identified.

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

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

As of the date of this Proxy Statement, the Board has no commitments, arrangements or understandings, written or oral, relating to the issuance of the newly-authorized shares that would be available in the event this Proposal 2 is adopted. However, if this Proposal 2 is adopted by our stockholders and if any discussions regarding a fund raising or strategic transaction come to a definitive understanding, it is possible that we could issue some or all of the newly-authorized shares in one or more such transactions subsequent to the increase in the number of authorized shares pursuant to this Proposal 2. We anticipate that, if Proposal 2 is adopted by our stockholders, we will issue some or all of the newly-authorized shares for fund raising purposes. However, we cannot provide assurances that any such transactions will be consummated on favorable terms or at all, that they would enhance stockholder value or that they would not adversely affect our business or the trading price of our common stock. Further, certain of such transactions may require us to incur non-recurring

or other charges and may pose significant integration challenges and/or management and business disruptions, any of which could materially and adversely affect our business and financial results. The Company also plans to continue to issue shares of common stock pursuant to its existing or future equity incentive plans and employee stock purchase plan subsequent to the increase in the number of authorized shares.

#### Determination of the Size of the Proposed Share Increase

In determining the size of the proposed authorized share increase under this Proposal 2, a number of factors were considered, including the number of shares issuable upon conversion or exercise of our outstanding derivative securities (including warrants and securities issued under our equity incentive plans), the need to issue future additional shares under our existing or future equity incentive plans in order to recruit and retain directors, officers, employees and other service providers, and under our existing or future employee stock purchase plan, that we expect to need additional shares in connection with future financing transactions in order to fund our operations or for other potential strategic transactions, and the potential that the Board may determine to effect one or more stock splits (in the form of stock dividends) in the future.

#### Anti-Takeover Effects

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

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

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

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

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

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

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

#### Consequences of Failure to Obtain Stockholder Approval

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

#### Effectiveness of the Amendment; Required Vote and Board Recommendation

If the Amendment is approved by our stockholders, the Amendment will become effective upon its filing with the Secretary of State of the State of Delaware, which filing is expected to occur promptly after the Annual Meeting. If the Amendment is not approved by our stockholders, the Amendment will not be filed and the number of authorized shares of common stock under our Certificate of Incorporation will remain unchanged. Our Board reserves the right, notwithstanding stockholder approval of the Amendment and without further action by our stockholders, not to proceed with the filing of the Amendment.

Approval of this Proposal 2 requires the affirmative vote of the holders of a majority of the shares of our common stock entitled to vote on this Proposal 2 in person, by telephone or by proxy at the Annual Meeting. Abstentions and broker non-votes will have the effect of voting "AGAINST" this Proposal 2.

#### THE BOARD UNANIMOUSLY RECOMMENDS

A VOTE "FOR" THE APPROVAL OF THE AMENDMENT TO THE COMPANY'S CERTIFICATE OF INCORPORATION.

**PROPOSAL 3: APPROVAL OF THE COMPANY'S  
AMENDED AND RESTATED 2017 EQUITY INCENTIVE PLAN**  
Summary

We are asking you to approve an amended and restated version of the Company's 2017 Equity Incentive Plan (the "2017 Plan"). If shareholders approve this 2017 Plan proposal, the number of shares of the Company's common stock that may be delivered pursuant to awards granted under the 2017 Plan will be increased by an additional 3,300,000 shares. There would be a corresponding increase in the number of shares that may be delivered pursuant to incentive stock options granted under the 2017 Plan (for clarity, such shares also count against, and are not in addition to, the aggregate share limit for the 2017 Plan). In addition, certain provisions of the 2017 Plan that were designed to give the Company flexibility to structure awards as "performance-based compensation" under Section 162(m) of the U.S. Internal Revenue Code have been eliminated in light of recent changes to applicable tax law, as discussed below.

The Board approved the proposed amendment and restatement of the 2017 Plan on March 7, 2018, subject to shareholder approval.

We also maintain the CTI BioPharma Corp. 2015 Equity Incentive Plan, as amended (the "2015 Plan"), and the CTI BioPharma Corp. 2007 Equity Incentive Plan, as amended (the "2007 Plan" and together with the 2017 Plan and the 2015 Plan, the "Plans"). However, no new awards may be granted under the 2015 Plan or the 2007 Plan. As of March 9, 2018, (i) a total of 6,974,506 shares of our common stock were then subject to outstanding options granted under the Plans (of which 1,518,785 options are contingent upon stockholder approval of this Proposal 3 as discussed below under "Specific Benefits under the 2017 Plan"), (ii) 55,810 shares of our common stock were then subject to unvested restricted stock awards and unvested restricted stock unit awards granted under the Plans, (iii) no shares were available for new award grants under the 2015 Plan or the 2007 Plan and (iv) 122,788 shares were available for new award grants under the 2017 Plan (without taking into account the 3,300,000 shares that would be added to the 2017 Plan if stockholders approve this Proposal 3 or the 1,518,785 shares subject to options that are contingent on stockholder approval of this Proposal 3). In addition to the outstanding awards under the Plans described above, 1,120,000 shares were subject to an outstanding option granted to Dr. Craig in March 2017 as an inducement to his joining the Company that was not under any of the Plans.

In addition to the proposed increase in the share limit for the 2017 Plan described above, in accordance with the existing terms of the 2017 Plan, any shares of the Company's common stock subject to outstanding stock options and restricted stock or restricted stock unit awards under any of the Plans that expire, are canceled or otherwise terminate after the 2017 Annual Meeting (other than shares withheld for the payment of any applicable exercise price or tax withholding) will also be available for award grant purposes under the 2017 Plan.

If shareholders do not approve the 2017 Plan proposal, the Company will continue to have the authority to grant awards under the 2017 Plan, but the proposed 3,300,000 share increase in the 2017 Plan share limit will not be effective.

Please see the discussion below under "Specific Benefits under the 2017 Plan," "Award Burn Rate" and "Dilution" for detailed information on certain awards grants made by the Company that are contingent on shareholder approval of this 2017 Plan proposal, past award grants under the Plans, and the potential dilutive impact of this Proposal 3.

**Reasons for Approving the Proposal**

We believe the additional number of shares that would be available for award grants under the 2017 Plan if shareholders approve this Proposal 3, will facilitate our ability to continue to grant equity incentives, which we believe are vital to our ability to attract and retain outstanding and highly skilled individuals in the extremely competitive

service provider markets in which we must compete. We believe that our employees are some of our most valuable assets, and such awards are crucial to our ability to motivate individuals in our service to achieve our goals. Equity awards are a significant component of total compensation for our executive officers, other employees and service providers. If we were to grant fewer equity awards to these individuals, we believe that we would nonetheless need to provide compensation in other forms (such as cash) to provide a total compensation package that is competitive with other companies. We strongly believe that the approval of this Proposal 3 is instrumental to our continued success.

#### Vote Required and Board Recommendation

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

Approval of the proposed amendment and restatement of the 2017 Plan requires the affirmative vote of the holders of a majority of the shares of our common stock voting on this Proposal 3 in person, by telephone or by proxy at the Annual Meeting. Abstentions and broker non-votes will not be counted and will have no effect on the outcome of this Proposal 3.

THE BOARD RECOMMENDS A VOTE “FOR” THE APPROVAL OF  
THE PROPOSED AMENDMENT AND RESTATEMENT OF THE 2017 PLAN.

#### Summary Description of the 2017 Plan

The principal terms of the 2017 Plan are summarized below. The following summary is qualified in its entirety by the full text of the 2017 Plan, as proposed to be amended and restated, which appears as Appendix A to this Proxy Statement.

#### Purpose

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

#### Administration

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

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

- to select eligible participants and determine the type(s) of award(s) that they are to receive;
- to grant awards and determine the terms and conditions of awards, including but not limited to the price (if any) to be paid for the shares or the award and the number of shares (if a securities-based award) to be offered or awarded;
- to determine any applicable vesting and exercise conditions for awards, or determine that no delayed vesting or exercise is required, to determine the circumstances in which any performance-based goals (or the applicable measure of performance) will be adjusted and the nature and impact of any such adjustment, to establish the events (if any) on which exercisability or vesting may accelerate (including retirement and other specified terminations of employment or service, or other circumstances), and to accelerate or extend the vesting or exercisability or extend the term of any or all outstanding awards;
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to cancel, modify or waive the Company's rights with respect to, or modify, discontinue, suspend or terminate any or all outstanding awards, subject to any required consents;

- subject to the other provisions of the 2017 Plan, to make certain adjustments to an outstanding award and to authorize the conversion, succession or substitution of an award;

to determine the method of payment of the purchase price (if any) for any award or shares of the Company's common stock, as well as any tax-related items with respect to the award, which may be in the form of cash, check, or electronic funds transfer, by the delivery of already-owned shares of the Company's common stock or by a reduction of the number of shares deliverable pursuant to the award, by services rendered by the recipient of the award, by notice and third party payment or cashless exercise on such terms as the Administrator may authorize, or any other lawful consideration as determined by the Administrator;

- to modify the terms and conditions of any award, establish sub-plans and agreements and determine different terms and conditions that the Administrator deems necessary or advisable to comply with laws in the countries where the Company or one of its subsidiaries operates or where one or more eligible participants reside or provide services;

- to approve the form of any award agreements used under the 2017 Plan; and

- to construe and interpret the 2017 Plan, make rules for the administration of the 2017 Plan and make all other determinations necessary or advisable for the administration of the 2017 Plan.

### No Repricing

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

### Eligibility

Persons eligible to receive awards under the 2017 Plan include officers or employees of the Company or any of its subsidiaries, directors of the Company and certain consultants and advisers to the Company or any of its subsidiaries. As of March 9, 2018, approximately 53 officers and employees of the Company and its subsidiaries (including all of the Company’s named executive officers currently employed by us), each of the Company’s 7 non-employee directors and approximately 32 other individuals who provide services to the Company and its subsidiaries as consultants or advisers, were considered eligible under the 2017 Plan. While consultants and advisers to the Company and our subsidiaries are generally considered eligible under the 2017 Plan to preserve flexibility for the Company, over the last five years we have only granted equity awards under the Plans to 7 individuals who, at the time of grant of the awards, were neither employed by the Company, or one of our subsidiaries, nor members of the Board.

### Authorized Shares; Limits on Awards

The maximum number of shares of the Company’s common stock that may be issued or transferred pursuant to awards under the 2017 Plan currently equals the sum of: (i) 2,000,000 shares plus (ii) the number of any shares subject to stock options or restricted stock or restricted stock unit awards granted under the 2007 Plan or the 2015 Plan and outstanding as of the date of the 2017 Annual Meeting that expire, or for any reason are cancelled, terminated or forfeited or otherwise reacquired, after the date of the 2017 Annual Meeting (other than shares withheld for the payment of any applicable exercise price or tax withholding) without being exercised or vested, as applicable. If shareholders approve this 2017 Plan proposal, the number of shares referred to in clause (i) above will increase to 5,300,000 shares.

As of March 9, 2018, (i) a total of 301,128 shares of our common stock were then subject to outstanding options granted under the 2007 Plan, (ii) a total of 2,751,343 shares of our common stock were then subject to outstanding options granted under the 2015 Plan, (iii) a total of 3,922,035 shares of our common stock were then subject to outstanding options granted under the 2017 Plan (of which 1,518,785 options are contingent upon stockholder approval of this Proposal 3 as discussed below under “Specific Benefits under the 2017 Plan”), (iv) 26,485 shares of our common stock were then subject to unvested restricted stock or restricted stock unit awards granted under the 2007 Plan, (v) 29,325 shares of our common stock were then subject to unvested restricted stock or restricted stock unit awards granted under the 2015 Plan, (vi) no shares of our common stock were then subject to unvested restricted stock or restricted stock unit awards granted under the 2017 Plan, (vii) no shares were available for new award grants under the 2007 Plan or the 2015 Plan, and (viii) 122,788 shares were available for new award grants under the 2017 Plan (without taking into account the 3,300,000 shares that would be added to the 2017 Plan if stockholders approve this Proposal 3 or the 1,518,785 shares subject to options that are contingent on stockholder approval of this Proposal 3). In addition to the outstanding awards under the Plans described above, 1,120,000 shares were subject to an outstanding option granted to Dr. Craig in March 2017 as an inducement to his joining the Company that was not under any of the Plans.

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

The maximum number of shares that may be delivered pursuant to options qualified as incentive stock options granted under the 2017 Plan is currently 2,000,000 shares. If shareholders approve this 2017 Plan proposal, the •incentive stock option limit will increase to 5,300,000 shares. (For clarity, any shares issued in respect of incentive stock options granted under the plan will also count against the overall share limit for the 2017 Plan described above.)

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

Except as described in the next sentence, shares that are subject to or underlie awards that expire or for any reason are canceled or terminated, are forfeited, fail to vest or for any other reason are not paid or delivered under the 2017 Plan will again be available for subsequent awards under the 2017 Plan. Notwithstanding the foregoing, shares that are exchanged by a participant or withheld by the Company to pay the exercise or purchase price of an award granted under the 2017 Plan, as well as any shares exchanged or withheld to satisfy the tax withholding obligations related to any award granted under the 2017 Plan, will not be available for subsequent awards under the 2017 Plan. To the extent that an award is settled in cash or a form other than shares, the shares that would have been delivered had there been no such cash or other settlement will not be counted against the shares available for issuance under the 2017 Plan. In the event that shares are delivered in respect of a dividend equivalent right, the actual number of shares delivered with respect to the award shall be counted against the share limit of the 2017 Plan. (For purposes of clarity, if 1,000 dividend equivalent rights are granted and outstanding when the Company pays a dividend, and 50 shares are delivered in payment of those rights with respect to that dividend, 50 shares shall be counted against the share limit of the plan.) To the extent that shares are delivered pursuant to the exercise of a stock appreciation right or stock option, the number of underlying shares as to which the exercise related shall be counted against the applicable share limits, as opposed to only counting the shares actually issued. (For purposes of clarity, if a stock appreciation right relates to 100,000 shares and is exercised at a time when the payment due to the participant is 15,000 shares, 100,000 shares shall be charged against the applicable share limits with respect to such exercise.) In addition, the 2017 Plan generally provides that shares issued in connection with awards that are granted by or become obligations of the Company through the assumption of awards (or in substitution for awards) in connection with an acquisition of another company will not count against the shares available for issuance under the 2017 Plan. The 2017 Plan does not permit the Company to increase the applicable share limits of the 2017 Plan by repurchasing shares of common stock on the market (by using cash received through the exercise of stock options or otherwise).

#### Types of Awards

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

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

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

The other types of awards that may be granted under the 2017 Plan include, without limitation, stock awards, restricted stock, restricted stock units or phantom stock (which are contractual rights to receive shares of stock, or cash

based on the fair market value of a share of stock), dividend equivalents that represent the right to receive a payment based on the dividends paid on a share of stock over a stated period of time, or similar rights to purchase or acquire shares and cash awards. Any awards under the 2017 Plan may be fully-vested at grant or may be subject to time- and/or performance-based vesting requirements.

#### Dividend Equivalents; Deferrals

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

#### Assumption and Termination of Awards

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

#### Transfer Restrictions

Subject to certain exceptions contained in the 2017 Plan, awards under the 2017 Plan generally are not transferable by the recipient other than by will or the laws of descent and distribution and are generally exercisable, during the recipient's lifetime, only by the recipient. Any amounts payable or shares issuable pursuant to an award generally will be paid only to the recipient or the recipient's beneficiary or legal representative. The Administrator has discretion, however, to establish written conditions and procedures for the transfer of awards to other persons or entities, provided that such transfers comply with applicable securities and exchange control laws and are not made for value (other than nominal consideration, settlement of marital property rights, or for interests in an entity in which more than 50% of the voting securities are held by the award recipient or by the recipient's family members).

#### Adjustments

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

#### No Limit on Other Authority

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

#### Termination of or Changes to the 2017 Plan

The Board may amend or terminate the 2017 Plan at any time and in any manner. Shareholder approval for an amendment will be required only to the extent then required by applicable law or deemed necessary or advisable by the Board. Unless terminated earlier by the Board and subject to any extension that may be approved by shareholders, the authority to grant new awards under the 2017 Plan will terminate on March 12, 2027, subject to any extension that may be approved by our stockholders. Outstanding awards, as well as the Administrator's authority with respect thereto, generally will continue following the expiration or termination of the plan. Generally speaking, outstanding awards may be amended by the Administrator (except for a repricing), but the consent of the award holder is required if the amendment (or any plan amendment) materially and adversely affects the holder.

#### Federal Income Tax Consequences of Awards under the 2017 Plan

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

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

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

is taxed when paid. In each of the foregoing cases, the Company will generally have a corresponding deduction at the time the participant recognizes income.

If an award is accelerated under the 2017 Plan in connection with a “change in control” (as this term is used under the Internal Revenue Code), the Company may not be permitted to deduct the portion of the compensation attributable to the acceleration (“parachute payments”) if it exceeds certain threshold limits under the Internal Revenue Code (and certain related excise taxes may be triggered).

Federal income tax law generally prohibits a publicly-held company from deducting compensation paid to a current or former named executive officer that exceeds \$1 million during the tax year. Certain awards granted before November 2, 2017 that were based upon attaining pre-established performance measures that were set by the company’s compensation committee under a plan approved by the company’s shareholders (“performance-based awards”), as well as amounts payable to former executives pursuant to a written binding contract that was in effect on November 2, 2017, may qualify for an exception to the \$1 million deductibility limit. One of the requirements of the performance-based award exception to the \$1 million deductibility limit was that shareholders approve the maximum amount of compensation that could be paid to any individual employee during a specified period pursuant to any such awards. To address this requirement as to stock options and stock appreciation rights, the 2017 Plan as currently in effect limits the maximum number of shares of Company common stock subject to stock options and stock appreciation rights that are granted during any calendar year to any individual under the 2017 Plan to 1,200,000 shares (the “Individual Limit”). However, while stock options, stock appreciation rights, and awards with performance-based vesting requirements (as well as other types of awards) may still be awarded under the 2017 Plan, no new award grants will qualify for the performance-based award exception to the \$1 million deductibility limit because that exception was eliminated (except as to certain past grants and contracts as noted above) by the Tax Cuts and Jobs Act of 2017 (the “Tax Act”). Since the Tax Act eliminated the performance-based award exception to the \$1 million deductibility limit for new award grants, the Individual Limit has been removed from the 2017 Plan as proposed to be amended and restated and, in addition, certain other language specific to the performance-based exception to the \$1 million deductibility limit has been removed from the 2017 Plan as proposed to be amended and restated. Awards granted under the 2017 Plan before November 2, 2017 that were intended to qualify for the performance-based award exception to the \$1 million deductibility limit will continue to be governed by these provisions as they were in effect at the time of grant of the award.

#### Specific Benefits under the 2017 Plan

The Administrator has approved certain award grants under the 2017 Plan that are contingent on shareholder approval of this Proposal 3. These grants are set forth in the following table. If stockholders do not approve this Proposal 3, these grants will be cancelled.

#### 2017 Equity Incentive Plan

##### Awards Subject to Stockholder Approval of 2017 Plan Proposal

| Name and Position                                                                                                                                      | Number of Shares Underlying Stock Options <sup>(1)</sup> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Named Executive Officers                                                                                                                               |                                                          |
| Adam R. Craig, M.D.<br>President and Chief Executive Officer                                                                                           | 475,000                                                  |
| David H. Kirske<br>Executive Vice President, Chief Financial Officer                                                                                   | 83,396                                                   |
| Jack W. Singer, M.D.<br>Executive Vice President, Chief Scientific Officer, Interim Chief Medical Officer<br>and Global Head of Translational Medicine | 94,433                                                   |

|                                                   |         |
|---------------------------------------------------|---------|
| Bruce J. Seeley                                   | 134,906 |
| Executive Vice President, Chief Operating Officer |         |

|                                                               |         |
|---------------------------------------------------------------|---------|
| Current Executive Officers as a Group (4 persons)             | 787,735 |
| Current Non-Employee Directors as a Group (6 persons)         | 360,000 |
| All Other Employees as a Group (Excluding Executive Officers) | 371,050 |

<sup>(1)</sup> The per share exercise price of each of these options is \$4.01, which was the closing price of a share of our common stock on March 9, 2018 (the date of Administrator approval of these grants) on the Nasdaq Global Market. Each option will have a maximum term of 10 years from the date of grant, subject to earlier termination in connection with certain changes in control of the Company or a termination of the optionee's employment. Each option is scheduled to vest semi-annually over 3 years from March 9, 2018, except that the grants

to our non-employee directors will vest in accordance with our Director Compensation Policy described below under “Director Compensation.”

Except for the grants described in the table above, we have not approved any awards that are conditioned upon shareholder approval of this Proposal 3, and we are not currently considering any specific award grants under the 2017 Plan. Future grants under the 2017 Plan will be determined by the Administrator and may vary from year to year and from participant to participant and are not determinable at this time.

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

#### Aggregate Past Grants Under the 2017 Plan

As of March 9, 2018, awards covering 4,010,785 shares of our common stock have been granted under the 2017 Plan. The following table shows information regarding the distribution of awards covering such shares as of March 9, 2018 among the persons and groups identified below, including option exercises and restricted stock and restricted stock units vesting prior to and option and unvested restricted stock and restricted stock unit holdings as of that date, as well as restricted stock and restricted stock unit grants that were forfeited prior to that date without being vested or paid.

## STOCK OPTIONS

| Name and Position                                                                                                                                         | Number of Shares<br>Subject to Past Option<br>Grants | Number of<br>Shares Acquired<br>On Exercise | Number of Shares<br>Underlying Options as of<br>March 9, 2018 |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------|---------------|
|                                                                                                                                                           |                                                      |                                             | Exercisable                                                   | Unexercisable |
| Named Executive Officers:                                                                                                                                 |                                                      |                                             |                                                               |               |
| Adam R. Craig, M.D.<br>President and Chief Executive Officer                                                                                              | 925,000                                              | -                                           | -                                                             | 925,000       |
| David H. Kirske<br>Executive Vice President, Chief Financial Officer                                                                                      | 423,396                                              | -                                           | 12,500                                                        | 410,896       |
| Jack W. Singer, M.D.<br>Executive Vice President, Chief Scientific Officer,<br>Interim Chief Medical Officer and Global Head of<br>Translational Medicine | 209,433                                              | -                                           | -                                                             | 209,433       |
| Bruce J. Seeley<br>Executive Vice President, Chief Operating Officer                                                                                      | 484,906                                              | -                                           | -                                                             | 484,906       |
| Richard L. Love<br>Director and Former Interim Chief Executive<br>Officer and President                                                                   | -                                                    | -                                           | -                                                             | -             |
| Louis A. Bianco<br>Former Executive Vice President, Finance and<br>Administration                                                                         | -                                                    | -                                           | -                                                             | -             |
| Matthew Plunkett, Ph.D.<br>Former Executive Vice President, Chief Business<br>Officer                                                                     | -                                                    | -                                           | -                                                             | -             |
| Total for All Named Executive Officers as a Group<br>(7 persons):                                                                                         | 2,042,735                                            | -                                           | 12,500                                                        | 2,030,235     |
| Laurent Fischer, M.D.                                                                                                                                     | 110,000                                              | -                                           | -                                                             | 110,000       |
| Richard L. Love                                                                                                                                           | 50,000                                               | -                                           | -                                                             | 50,000        |
| Michael A. Metzger                                                                                                                                        | 60,000                                               | -                                           | -                                                             | 60,000        |
| David Parkinson, M.D.                                                                                                                                     | 110,000                                              | -                                           | -                                                             | 110,000       |
| Matthew D. Perry                                                                                                                                          | 60,000                                               | -                                           | -                                                             | 60,000        |
| Frederick W. Telling, Ph.D.                                                                                                                               | 60,000                                               | -                                           | -                                                             | 60,000        |
| Reed V. Tuckson, M.D.                                                                                                                                     | 60,000                                               | -                                           | -                                                             | 60,000        |
| Total for all Current Non-Executive Directors as a<br>Group (7 persons):                                                                                  | 510,000                                              |                                             | -                                                             | 510,000       |
| Each other person who has received 5% or more of<br>the options, warrants or rights under the Plan                                                        | -                                                    | -                                           | -                                                             | -             |
| All others, including any current officers who are<br>not executive officers or directors, as a group                                                     | 1,458,050                                            | -                                           | 21,042                                                        | 1,348,258     |
| Total                                                                                                                                                     | 4,010,785                                            |                                             | 33,542                                                        | 3,888,493     |

## 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 8.1%. For this purpose, the "net burn rate" for any one particular fiscal year



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

|                                                                  | 2017       | 2016       | 2015        |
|------------------------------------------------------------------|------------|------------|-------------|
| Options granted                                                  | 4,450,350  | 1,511,299  | 1,149,185   |
| Restricted stock/stock unit awards granted                       | 22,021     | 457,036    | 616,080 (1) |
| Less: shares subject to canceled, terminated or forfeited awards | (627,339)  | (360,434)  | (263,305)   |
| Net shares granted                                               | 3,845,032  | 1,607,901  | 1,501,960   |
| Weighted average basic common shares outstanding                 | 36,445,397 | 27,947,894 | 18,837,337  |
| Net burn rate (2)(3)                                             | 10.6%      | 5.8%       | 8.0%        |

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

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

(3) For the three-year period ended December 31, 2017, the Company's average annual net burn rate using the methodology described in note (2) above was 8.1%.

The Company currently expects that the additional shares requested for the 2017 Plan under this Proposal 3 (taking into account the stock options that have been granted that are conditional on stockholder approval of this Proposal 3, as discussed above) would provide the Company with flexibility to continue to grant equity-based awards into the fourth quarter of 2018, assuming usual levels of shares becoming available for new awards as a result of forfeitures of outstanding awards throughout the projected period. However, this is only an estimate, in the Company's judgment, based on current circumstances. The total number of shares that are awarded under the 2017 Plan in any one year or from year-to-year may change based on any number of variables, including, without limitation, the value of our common stock (since higher stock prices generally require that fewer shares be issued to produce awards of the same grant date fair value), changes in competitors' compensation practices or changes in compensation practices in the market generally, changes in the number of our employees, changes in the number of our directors and officers, acquisition activity and the potential need to grant awards to new employees in connection with acquisitions, the need to attract, retain and incentivize key talent, the type of awards we grant, the extent to which any applicable performance-based vesting requirements are satisfied, and how we choose to balance total compensation between cash and equity-based awards. The type and terms of awards granted may also change in any one year or from year-to-year based on any number of variables, including, without limitation, changes in competitors' compensation practices or changes in compensation practices generally, and the need to attract, retain and incentivize key talent.

## Dilution

The following table shows the total number of shares of our common stock that were (i) subject to unvested restricted stock and restricted stock unit awards granted under the Plans, (ii) subject to outstanding stock options granted under the Plans, and (iii) available for new award grants under the 2017 Plan, in each case, as of each of December 31, 2017 and March 9, 2018. In this Proposal 3, the number of shares of our common stock subject to awards granted during any particular period or outstanding on any particular date is presented based on the actual number of shares of our common stock covered by those awards.

|                                                                              | December 31, 2017 | March 9, 2018 |
|------------------------------------------------------------------------------|-------------------|---------------|
| Shares subject to unvested restricted stock and restricted stock unit awards | 82,999            | 55,810        |
| Shares subject to outstanding stock options (1)                              | 6,668,363         | 8,094,506 (2) |
| Shares available for new award grants                                        | 23,521            | 122,788 (3)   |

- (1) The Company's outstanding options generally may not be transferred to third parties for value and do not include dividend equivalent rights.
- (2) This includes the 1,518,785 shares subject to options that are contingent on stockholder approval of this Proposal 3. This does not take into account the 3,300,000 shares that would be added to the 2017 Plan if stockholders approve this Proposal 3 or the 1,518,785 shares subject to options that are contingent on stockholder approval of this Proposal 3.

To help assess the potential dilutive impact of this Proposal 3, the number of shares of our common stock outstanding in each of the last three fiscal years is as follows: 28,046,109 shares outstanding at the end of fiscal year 2015; 28,228,602 shares outstanding at the end of fiscal year 2016; and 42,969,494 shares outstanding at the end of fiscal year 2017. The number of shares of our common stock outstanding as of March 9, 2018 was 57,982,860. 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 March 12, 2018 was \$4.04.

#### Equity Compensation Plan Information

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

#### PROPOSAL 4:

#### RATIFICATION OF THE SELECTION OF INDEPENDENT AUDITOR

##### Summary

Marcum LLP served as our independent auditor and independent registered public accounting firm for the completion of our audit for the year ended December 31, 2017. The Audit Committee has again approved the appointment of Marcum LLP as our independent auditor for the year ending December 31, 2018, and the Board has further directed that we submit the selection of independent auditor and independent registered public accounting firm for 2018 for ratification by the stockholders 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 stockholders for ratification as a matter of good corporate practice and because we value our stockholders' views. In the event the stockholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee in its discretion may direct the appointment of a different independent auditor and independent registered public accounting at any time during the year if the Audit Committee feels that such a change would be in our and our stockholders' 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, 2017 and 2016:

| Services Rendered        | 2017       | 2016      |
|--------------------------|------------|-----------|
| Audit Fees (1)           | \$ 558,000 | \$464,000 |
| Audit-Related Fees (2) - | -          | -         |
| Tax Fees (3)             | -          | -         |
| All Other Fees (4)       | -          | -         |

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

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

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

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

##### Pre-Approval Policy

Pursuant to the Amended and Restated Charter for the Audit Committee, the Audit Committee pre-approves all auditing services and permissible non-audit services to be performed by our independent auditor and the associated fees. The Audit Committee can delegate this responsibility to one or more of its members, provided that such pre-approval decision is presented to the full Audit Committee and its next scheduled meeting. All services performed and related fees billed by Marcum LLP during fiscal year 2017 and fiscal year 2016 were pre-approved by the Audit Committee pursuant to regulations of the SEC.

##### Vote Required and Board Recommendation

Ratification of the selection of Marcum LLP as our independent auditor for the year ending December 31, 2018 requires the affirmative vote of the holders of a majority of the shares of common stock voting on this Proposal 4 in person, by telephone or by proxy



at the Annual Meeting. Abstentions and any broker non-votes will not be counted in the ratification of the selection of our independent auditor and will have no effect on the outcome of the selection of the independent auditor. If you do not instruct your broker on how to vote the shares in your account for this Proposal 4, brokers will be permitted to exercise their discretionary authority to vote for such proposal.

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

#### Report of the Audit Committee

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

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

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

In addition, we recommend the ratification of the appointment of the independent auditor and review their proposed audit scope, approach and independence. Marcum LLP has served as our independent auditor since 2010. In determining whether to reappoint Marcum LLP, we took into consideration a number of factors, including the length of time the firm has been engaged and the knowledge the firm has of our operations, accounting policies and practices and internal control over financial reporting, the quality of our ongoing discussions with Marcum LLP and an assessment of the professional qualifications and past performance of the lead audit partner and Marcum LLP. In order to assure continuing auditor independence, we also periodically consider whether there should be a regular rotation of our independent auditor. We discussed with Marcum LLP other matters required to be discussed by Auditing Standard No. 16, Communications with Audit Committees, as adopted by the Public Company Accounting Oversight Board. In addition, we have received from, and discussed with, Marcum LLP their annual written report on their independence from us and our management, as required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant’s communications with the audit committee concerning independence and discussed with the auditor whether the provision of any non-audit services provided to the Company by them during 2017 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 stockholders.

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 2017 Annual Report for filing with the SEC.

Respectfully submitted by the Audit Committee:

Frederick W. Telling, Ph.D., Chair

Michael A. Metzger

Reed V. Tuckson, M.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:

We generally structure the total annual compensation opportunity for each of our named executive officers so that the greatest emphasis is on "at-risk" pay (annual cash incentive compensation opportunity and grant of equity incentive compensation), with the greatest portion of "at-risk" pay generally being in the form of stock options with a value directly dependent on stock price appreciation.

Executives' bonuses under our annual incentive program are determined by the Compensation Committee based on the Company's achievement of operational goals established in advance by the Compensation Committee (with executives other than Dr. Craig also being subject to a limited individual performance component).

We make equity award grants to our named executive officers in the form of stock options, which we believe further align executives' interests with those of stockholders (as stock options will have value only if our stock price increases after the grant date) and also provide an additional retention incentive as the options generally vest over a multi-year period.

We generally do not provide material perquisites to our named executive officers.

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

Our named executive officers are not entitled to gross-up payments for any "parachute payment" taxes under Sections 280G and 4999 of the Internal Revenue Code, nor are they entitled to any severance or other benefits that are triggered solely by the occurrence of a change in control.

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

RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed in this Proxy Statement pursuant to the SEC's executive compensation disclosure rules (which disclosure includes the Compensation

Discussion and Analysis, the compensation tables and the narrative discussion that accompanies the compensation tables), is hereby approved.

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

Our current policy is to provide shareholders with an opportunity to approve the compensation of the Company's named executive officers every year at the annual meeting of shareholders. It is expected that the next such vote will be held at the 2019 annual meeting of shareholders.

#### 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 stockholders 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 stockholders, other than an announcement at the Annual Meeting of the time and place to which the Annual Meeting is adjourned, 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 stockholders pursuant to applicable U.S. 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 BOARD RECOMMENDS A VOTE "FOR"**

**THE ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY OR APPROPRIATE, TO SOLICIT ADDITIONAL PROXIES.**

## EXECUTIVE COMPENSATION

### Compensation Discussion and Analysis

#### Executive Summary

This “Compensation Discussion and Analysis” describes the compensation we provide or provided to our executive officers: Dr. Adam R. Craig (President and Chief Executive Officer), Dr. Jack W. Singer (Executive Vice President, Chief Scientific Officer, Interim Chief Medical Officer and Global Head of Translational Medicine); Bruce J. Seeley (Executive Vice President, Chief Operating Officer); and David H. Kirske (Executive Vice President, Chief Financial Officer); as well as Richard L. Love, the Company’s former interim Chief Executive Officer and President, Louis A. Bianco, the Company’s former Executive Vice President, Finance and Administration, and Dr. Matthew Plunkett (the Company’s former Executive Vice President, Chief Business Officer). These executives and former executives are referred to in this proxy statement as our “named executive officers.”

The Company’s principal executive officer at the beginning of 2017 was Mr. Love. The compensation for Mr. Love referred to in this “Compensation Discussion and Analysis” and the executive compensation tables that appear thereafter is his compensation for service as our Interim President and Chief Executive Officer (“Interim CEO”) from October 2, 2016 through March 20, 2017 when Dr. Craig became our President and Chief Executive Officer. Refer to the “Non-Employee Director Compensation Table” and related discussion below for Mr. Love’s compensation as a non-employee director of the Company during 2017 after he ceased serving as our Interim CEO.

#### Compensation Process

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

#### Fiscal Year 2017 Business Developments

Select key fiscal year 2017 highlights include:

#### Research and Development

In August 2017, enrollment was completed in the PIX306 Phase 3 trial of PIXUVRI® (pixantrone) (“PIX306”). The PIX306 trial is evaluating PIXUVRI combined with rituximab in comparison to that of rituximab combined with gemcitabine in patients with aggressive B-cell NHL. PIXUVRI has previously been granted conditional marketing authorization from the European Commission for the treatment of adult patients with multiply relapsed or refractory aggressive B-cell NHL. The trial is being conducted as a post-authorization requirement of conditional marketing authorization. If positive, the results from this trial could support broader indications. Top-line results are expected by the end of the first half of 2018.

In July 2017, the first patient was enrolled in PAC203, a Phase 2 clinical trial of pacritinib in patients with primary myelofibrosis who have failed prior ruxolitinib therapy (“PAC203”). PAC203 is designed to evaluate the dose response relationship for safety and efficacy (spleen volume reduction at 12 and 24 weeks) of three dose regimens: 100 mg once-daily, 100 mg twice-daily (BID) and 200 mg BID. The 200 mg BID dose regimen was used in the Phase 3 PERSIST-2 trial of pacritinib in patients with myelofibrosis. The trial is expected to enroll up to approximately 105 patients. We expect to complete enrollment by mid-2018. We expect to have interim data from PAC203 by the end of the second quarter of 2018 and topline data in the first quarter of 2019.

In July 2017, the EMA validated the MAA for pacritinib for the treatment of patients with myelofibrosis who have thrombocytopenia (platelet counts less than 100,000 per microliter). Validation confirms that the submission is

complete and initiates the centralized review process by the EMA's Committee for Medicinal Products for Human Use.

In April 2017, we announced the expansion of the existing license and development collaboration agreement with Servier for PIXUVRI®. Under the expanded agreement, Servier will have rights to PIXUVRI in all markets except in the U.S. where we will retain the commercialization rights. Servier paid us €12.0 million in May 2017 and purchased PIXUVRI drug product for an additional €0.9 million in July 2017. We are eligible to receive up to €75.0 million in additional sales and regulatory milestone payments as well as royalties on net product sales.

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

In January 2017, the FDA removed the full clinical hold following review of our complete response submission which included, among other items, final Clinical Study Reports for both PERSIST-1 and 2 trials and a dose-exploration clinical trial protocol that the FDA requested. At that time, we announced that we intend to conduct a new trial, PAC203, that plans to enroll up to approximately 105

patients with primary myelofibrosis who have failed prior ruxolitinib therapy to evaluate the dose response relationship for safety and efficacy (spleen volume reduction at 12 and 24 weeks) of three dose regimens: 100 mg once-daily, 100 mg twice-daily (BID) and 200 mg BID. The 200 mg BID dose regimen was used in PERSIST-2.

#### Management Transition

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

In September 2017, we announced the appointment of David Kirske as Chief Financial Officer and Bruce Seeley as Chief Operating Officer. Mr. Kirske became our principal financial and accounting officer in August 2017 and had previously served as an independent chief financial officer consultant from January 2013 to August 2017. As a consultant, he provided financial management services to public and private companies in several industries during this time, including services to the Company from April 2017 to August 2017. Prior to Mr. Kirske's time as a consultant, he served as chief financial officer of Mad Fiber, Inc. from April to December 2012. Mr. Kirske also served as Vice President and Chief Financial Officer of Helix BioMedix from 2004 to 2008. Mr. Kirske holds a Bachelor's of Arts, Business Administration, from the University of Puget Sound. Mr. Seeley had served as the Company's Executive Vice President, Chief Commercial and Administrative Officer and Secretary since March 2017. Mr. Seeley previously served as the Company's Executive Vice President and Chief Commercial Officer from July 2015 to March 2017. From May 2012 to March 2015, Mr. Seeley served as Senior Vice President and General Manager, Diagnostics at NanoString Technologies, Inc. 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.

In August, 2017, Dr. Plunkett resigned as Executive Vice President, Chief Business Officer of the Company. In March 2017, Mr. Bianco resigned as Executive Vice President, Finance and Administration of the Company.

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

In June 2017, we announced that Dr. David Parkinson, M.D. had been appointed to the Board of Directors. Dr. Parkinson has more than 20 years in oncology clinical development with executive leadership roles at major biotechnology and pharmaceutical companies. Prior to Dr. Parkinson's appointment, Dr. Singer and Phillip M. Nudelman, Ph.D. each resigned from the Board of Directors (with Dr. Singer continuing to serve as an executive of the Company).

In July 2017, we announced that Dr. Laurent Fischer, M.D. had been appointed to the Board of Directors. Dr. Fischer has more than 20 years experience in developing and commercializing novel medicines in the biopharmaceutical industry and currently serves as Senior Vice President, Head of the Liver Therapeutic Area at Allergan following its acquisition of Tobira Therapeutics in 2016 where he previously served as Chief Executive Officer.

#### Reverse Stock Split

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

#### Compensation Structure and Emphasis on Pay-for-Performance

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

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We generally structure the total annual compensation opportunity for each of our named executive officers so that the greatest emphasis is on “at-risk” pay (annual cash incentive compensation opportunity and grant of equity incentive compensation), with the greatest portion of “at-risk” pay generally being in the form of stock options with a value directly dependent on stock price appreciation.

Executives’ bonuses under our annual incentive program are determined by the Compensation Committee based on the Company’s achievement of operational goals established in advance by the Compensation Committee (with executives other than Dr. Craig also being subject to a limited individual performance component).

We make equity award grants to our named executive officers in the form of stock options, which we believe further align executives’ interests with those of stockholders (as stock options will have value only if our stock price increases after the grant date) and also provide an additional retention incentive as the options generally vest over a multi-year period.

We generally do not provide material perquisites to our named executive officers.

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

Our named executive officers are not entitled to gross-up payments for any “parachute payment” taxes under Sections 280G and 4999 of the Internal Revenue Code, nor are they entitled to any severance or other benefits that are triggered solely by the occurrence of a 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. In general, the portion of compensation guaranteed and not at risk for any fiscal year represents only a fraction of the total potential compensation.

Under his employment agreement with the Company entered into in February 2017, approximately 90% of Dr. Craig’s target total direct compensation for 2017 is “at-risk” as described above. For these purposes, “target total direct compensation” refers to the executive’s base salary, target bonus opportunity and equity-based awards granted during the fiscal year (valued using the grant date fair value of the award as determined for accounting purposes).

#### 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 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 the creation of value for our shareholders or the achievement of key corporate objectives we believe are critical to our long-term success and viability.

2017 Named Executive Officer Pay Mix

The primary elements of our executive compensation program include base salaries, annual cash incentives and equity incentives. The principal rationale for each is noted in the following table:

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| Component                          | At Risk or Not 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 the achievement of key corporate objectives. Individual performance may also be taken into account.                                                                                                                                                                                                                                                                                                                                               |
| 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 or stock price appreciation, 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 generally being in the form of equity incentive compensation that has a value derived from our stock price and also has either a significant performance-based vesting component or a value directly dependent on stock price appreciation.

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

#### Compensation Process; Compensation Consultant

The Compensation Committee generally does 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 its independent compensation consultants. 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. The Compensation Committee has sole and final authority to determine the compensation of our named executive officers.

The Compensation Committee also has sole authority to hire, retain and terminate the services of an independent compensation consultant to assist in its decision-making process. For 2017, the Compensation Committee engaged

FW Cook to provide consulting services with regard to the compensation of our executive officers and directors and to perform a comprehensive review of our compensation arrangements for our executive officers and directors. Other than its engagement by the Compensation Committee, FW Cook provides no other services to us or any of our subsidiaries. The Compensation Committee has assessed the independence of FW Cook and concluded that its engagement of FW Cook does not raise any conflict of interest with us or any of our directors or executive officers.

In July 2017, the Compensation Committee, with input from FW Cook, determined that the peer group of companies used to assess the Company's executive compensation program should consist primarily of U.S.-based drug development and pharmaceutical

companies that, at the time the Compensation Committee considered the peer group, had been publicly traded for at least two years, were in the pre-commercial stage of their development and generally had a market capitalization between \$50 million and \$500 million. Applying this selection criteria, the Compensation Committee determined that three of the 20 companies in the 2016 peer group (Array BioPharma Inc., Clovis Oncology, Inc. and Cyclacel Pharmaceuticals, Inc.) should be removed as being either substantially larger or substantially smaller than the Company based on market capitalization. The following companies were selected as the peer companies for 2017 (which we refer to as the “peer companies” in this “Compensation Discussion and Analysis”):

|                              |                                 |
|------------------------------|---------------------------------|
| Agenus Inc.                  | Ignitya, Inc.                   |
| Argos Therapeutics, Inc.     | Infinity Pharmaceuticals, Inc.  |
| ArQule, Inc.                 | Madrigal Pharmaceuticals, Inc.  |
| Cascadian Therapeutics, Inc. | MEI Pharma, Inc.                |
| ChemoCentryx, Inc.           | Rigel Pharmaceuticals, Inc.     |
| Cytokinetics, Incorporated   | Sunesis Pharmaceuticals, Inc.   |
| CytRx Corporation            | Threshold Pharmaceuticals, Inc. |
| Geron Corporation            | Zogenix, Inc.                   |
| Idera Pharmaceuticals, Inc.  |                                 |

FW Cook provided data on the executive and director compensation practices of these peer companies, provided advice on the changes to our executive and director compensation programs discussed in this proxy statement, and provided advice during 2017 with respect to Dr. Craig’s employment agreement and the compensation arrangements for Mr. Kirske and Mr. Seeley.

#### New CEO Employment Agreement

In connection with Dr. Craig’s appointment as Chief Executive Officer and President in March 2017, the Compensation Committee approved an employment agreement for Dr. Craig with a five-year term that provides for him to receive, among other benefits, an initial base salary of \$550,000, a target annual bonus opportunity of 55% of his base salary, and an option to purchase 1,200,000 shares of the Company’s common stock. The option is subject to a three-year vesting schedule and has value only if the value of our common stock increases above the value of our common stock on the grant date of the award. He also received a signing bonus of \$80,000 and certain relocation benefits under the agreement. The terms of this agreement were negotiated with Dr. Craig and are described in more detail below under “Description of Employment Agreements.” In considering these terms, the Compensation Committee took into account input from FW Cook and a review by FW Cook in September 2016 of the Company’s executive compensation program relative to its peer group at that time. The Compensation Committee determined that the base salary and target bonus levels provided to Dr. Craig were slightly below the median level for chief executive officers at the peer companies and that his compensation under the agreement was appropriate and in-line with market practices. FW Cook advised that the option grant for Dr. Craig was appropriate for a one-time new hire award to attract a qualified candidate based on the size of the grant as a percentage of the Company’s issued and outstanding shares at the time the grant was made, as well as the fact that cash compensation was set a little below the peer group median.

#### Base Salaries

The Compensation Committee establishes base salary levels for the named executive officers in its judgment, 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.

Dr. Craig's base salary was provided for in his employment agreement as described above. Upon Mr. Kirske's appointment as our Chief Financial Officer, and transition to full-time employment with us, in September 2017, the Compensation Committee approved a base salary for him of \$350,000. Prior to his appointment, Mr. Kirske's salary as a part-time employee was set at \$185,000 per year in his offer letter from the Company. In September 2017, the Compensation Committee also approved an increase in Mr. Seeley's base salary level from \$375,000 to \$410,000 in connection with his appointment as our Chief Operating Officer. In determining these salary levels, the Compensation Committee reviewed data provided by FW Cook for executives at comparable positions with the peer companies identified above and determined that Mr. Kirske's salary would be set at approximately the 25<sup>th</sup> percentile relative to comparable positions with the peer companies and Mr. Seeley's salary would be set between the 25<sup>th</sup> and 50<sup>th</sup> percentiles relative to comparable positions with the peer companies. Dr. Singer's base salary remained at \$400,000 for fiscal year 2017. The Compensation Committee determined that in each case these salary levels were appropriate in light of each executive's responsibilities and tenure with the Company.

#### Annual Cash Incentive Compensation

##### 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 will help to 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, for executives other than Dr. Craig, an evaluation by the Compensation Committee of the contributions made by individual executive during the course of the year. 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.

#### Size of the Award Opportunity

As noted above, Dr. Craig's employment agreement provides that his target annual bonus will be 55% of his base salary. The target bonus amounts for Mr. Seeley and Dr. Singer for 2017 were initially set at 30% of the executive's base salary. In connection with his appointment as our Chief Business Officer in September 2017, Mr. Seeley's target bonus was increased to 40% of his base salary (so that his aggregate target bonus for 2017 was approximately 33% of the base salary he actually received for 2017). In connection with his appointment as our Chief Financial Officer in September 2017, the Compensation Committee approved a target bonus for Mr. Kirske of 35% of the base salary he actually received for his services during 2017. The percentage of each executive's target bonus allocated to the different performance objectives established by the Compensation Committee for 2017 is set forth in the table below. The determination of these target bonus levels, as well as the percentage of the overall bonus opportunity allocated to each performance goal, 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. Dr. Plunkett and Mr. Bianco were not eligible for a bonus under the 2017 annual incentive plan as their employment with the Company terminated during the year.

#### 2017 Cash Incentive Performance Objectives

The following table presents the performance goals established by the Compensation Committee for the 2017 annual incentive plan and the percentage of each executive's target bonus opportunity allocated to that goal. The Compensation Committee believed that these objectives were key developmental goals for the Company. Based on the performance results for each component, the Compensation Committee determined that each of Dr. Craig, Dr. Singer and Mr. Seeley would be awarded 100% of his target bonus under the plan for 2017.

## 2017 Annual Cash Incentive Compensation

| Performance Objectives                   | Potential Bonus Percentages(1) |        |         | Actual Bonus Percentage Achieved/Awarded |
|------------------------------------------|--------------------------------|--------|---------|------------------------------------------|
|                                          | Threshold                      | Target | Maximum |                                          |
| Pacritinib EMA Approval or MAA Refile(2) |                                |        |         |                                          |
| Adam R. Craig, M.D.                      | 12.5%                          | 25%    | 31.25%  | 31.25%                                   |
| Jack W. Singer, M.D.                     | 12.5%                          | 25%    | 31.25%  | 31.25%                                   |
| Bruce J. Seeley                          | 5%                             | 10%    | 12.5%   | 12.5%                                    |
| Initiate PAC 203(3)                      |                                |        |         |                                          |
| Adam R. Craig, M.D.                      | 18.75%                         | 25%    | 25%     | 18.75%                                   |
| Jack W. Singer, M.D.                     | 18.75%                         | 25%    | 25%     | 18.75%                                   |
| Bruce J. Seeley                          | 7.5%                           | 10%    | 10%     | 7.5%                                     |
| PIX 306 Accrual(4)                       |                                |        |         |                                          |
| Adam R. Craig, M.D.                      | 7.5%                           | 10%    | 10%     | 10%                                      |
| Jack W. Singer, M.D.                     | 11.25%                         | 15%    | 15%     | 15%                                      |
| Bruce J. Seeley                          | 7.5%                           | 10%    | 10%     | 10%                                      |
| Management of Costs(5)                   |                                |        |         |                                          |
| Adam R. Craig, M.D.                      | N/A                            | 10%    | 10%     | 10%                                      |
| Jack W. Singer, M.D.                     | N/A                            | 10%    | 10%     | 10%                                      |
| Bruce J. Seeley                          | N/A                            | 35%    | 35%     | 35%                                      |
| Equity Financing(6)                      |                                |        |         |                                          |
| Adam R. Craig, M.D.                      | N/A                            | 20%    | 28%     | 20%                                      |
| Jack W. Singer, M.D.                     | N/A                            | 5%     | 7%      | 5%                                       |
| Bruce J. Seeley                          | N/A                            | 15%    | 21%     | 15%                                      |
| Servier ex-US Transaction(7)             |                                |        |         |                                          |
| Adam R. Craig, M.D.                      | N/A                            | 10%    | 10%     | 10%                                      |
| Jack W. Singer, M.D.                     | N/A                            | 10%    | 10%     | 10%                                      |
| Bruce J. Seeley                          | N/A                            | 10%    | 10%     | 10%                                      |
| Individual Performance(8)                |                                |        |         |                                          |
| Adam R. Craig, M.D.                      | N/A                            | N/A    | N/A     | N/A                                      |
| Jack W. Singer, M.D.                     | N/A                            | 10%    | 10%     | 10%                                      |
| Bruce J. Seeley                          | N/A                            | 10%    | 10%     | 10%                                      |
| Total                                    |                                |        |         |                                          |
| Adam R. Craig, M.D.                      |                                |        |         | 100%                                     |
| Jack W. Singer, M.D.                     |                                |        |         | 100%                                     |
| Bruce J. Seeley                          |                                |        |         | 100%                                     |

(1) The incentive opportunity for each component is expressed as a percentage of the executive's target bonus, 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.

The target bonus level would be achieved if we either (i) obtained EMA approval of pacritinib and completed all regulatory requirements by December 31, 2017 or (ii) refiled our marketing authorization application for pacritinib during the third quarter of 2017 (with the amount awarded to be increased by 25% if the application was refiled during the second quarter and to be reduced by 50% if the application was refiled during the fourth quarter). In February 2018, the Compensation Committee determined that this component had been achieved at the maximum level as we refiled our marketing authorization application for pacritinib during the second quarter of 2017.

The target/maximum bonus level would be achieved if we initiated the PAC203 study by the end of the second quarter of 2017 (with the amount awarded to be reduced by 25% if the study were initiated after the second quarter and before the end of 2017). In February 2018, the Compensation Committee determined that this component had been achieved at the threshold level as the PAC 203 study was initiated after the second quarter and before the end of 2017.

The target/maximum bonus level would be achieved if we completed the enrollment of patients in the PIX306 trial by the end of 2017 (with the amount awarded to be reduced by 25% if, at year-end, such enrollment was less than the target enrollment amount). In February 2018, the Compensation Committee determined that this component had been achieved during 2017 at the target/maximum level.

The target bonus/maximum level would be achieved if our operating expenses for 2017 were managed so that the Company had sufficient cash, excluding equity financing, to cover such expenses. In February 2018, the Compensation Committee determined that this component had been achieved at the target/maximum level.

The target bonus level would be achieved if we raised a minimum of \$40 million in equity financing by the end of the second quarter of 2017 (with the amount awarded to be increased by 10% for every additional \$5 million raised up to a maximum of \$60 million). In February 2018, the Compensation Committee determined that this component had been achieved at the target level as we raised between \$40 million and \$45 million by the end of the second quarter of 2017.

The target/maximum bonus level would be achieved if we completed the expansion of the existing license and development collaboration agreement with Servier for PIXUVRI by the end of the second quarter of fiscal year 2017. In February 2018, the Compensation Committee determined that this component had been achieved during 2017 at the target/maximum level.

In February 2018, the Compensation Committee determined that Dr. Singer and Mr. Seeley would each be awarded the full 10% for the individual performance component. In making this determination, the Compensation Committee considered Dr. Singer's contributions to the design and initiation of the PAC203 study and to the marketing authorization application for PAC203, and Mr. Seeley's expanded responsibilities in overseeing our finance, human resources and other functions.

The Compensation Committee also determined to award Mr. Kirske a bonus of \$42,971 for fiscal year 2017, which represented 100% of his target bonus (pro-rated to reflect his period of employment with the Company during the fiscal year). In making this determination, the Compensation Committee took into account Mr. Kirske's performance in assuming his responsibilities as our Chief Financial Officer and in our reincorporation in Delaware.

#### 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. Our current practice is to grant equity awards to our executives in the form of stock options. Because stock options have value only if the price of our shares increases over the vesting period of the option, we believe these awards are performance-based, further link executives' interests to those of our shareholders, and are consistent with common equity award grant practices for the peer companies.

## 2017 Equity Grants

On March 1, 2017, the Company granted stock options to Dr. Singer, Dr. Plunkett, and Mr. Seeley, with each executive's award covering 60,000 shares of our common stock. Each of these stock options was scheduled to vest in six substantially equal installments, with an installment vesting every six months over the three-year period following the date of grant. The Compensation Committee determined that these grants were appropriate to provide additional retention incentives to these executives and other employees during a period when the Company was undergoing significant changes in its management team.

As noted above, the Compensation Committee approved a new grant of 1,200,000 options to Dr. Craig upon his joining the Company in March 2017. In August 2017 in connection with his part-time appointment as our principal financial officer, Mr. Kirske was granted 25,000 options that would vest monthly over a one-year period. These grants were negotiated with the executive and made as an additional inducement to joining the Company.

In September 2017, as part of the Company's annual equity award process, the Compensation Committee approved a grant of 350,000 options to Mr. Seeley in connection with his appointment as Chief Operating Officer and a grant of 315,000 options to Mr. Kirske in connection with his appointment as Chief Financial Officer. The Compensation Committee also approved new option grants to Dr. Craig and Dr. Singer of 450,000 options and 115,000 options, respectively. Each of these options is scheduled to vest in semi-annual installments over a three-year period. The Compensation Committee determined in its judgment that these grant levels were appropriate

in light of the additional responsibilities of Mr. Seeley and Mr. Kirske in their new positions and in order to provide each of these executives additional incentives to create value for our shareholders and continue their employment with the Company. The Compensation Committee believed that these grant levels, which were a little below the median for Dr. Craig and at the median for Dr. Singer relative to comparable positions with the peer companies and took into account prior option grants received by these executives (particularly the new-hire option granted to Dr. Craig in March 2017 described above), and the Company's capital-raising, were appropriate based on the size of the grant as a percentage of the Company's issued and outstanding shares at the time the grant was made.

#### Method for Determination of the Size of the Awards

The levels for the equity awards we grant to our named executive officers are 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 for 2017 was appropriate taking into account the applicable vesting requirements and the incentives created by the awards.

#### 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. We generally do not provide material perquisites provided to our executives, other than certain relocation benefits provided to executives as deemed appropriate and certain health benefits provided to Dr. Singer (not to exceed \$30,000 per year). 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.

#### Post-Termination and Change in Control Benefits

We provide certain severance benefits to Dr. Craig under his employment agreement and to each of Mr. Kirske, Mr. Seeley and Dr. Singer under their severance agreements. The Compensation Committee believes these arrangements 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. 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 addition, if there is a change in control of the Company and the Compensation Committee does not provide for the substitution, assumption, exchange, or other continuation of outstanding awards under our stock incentive plans,

outstanding awards granted under the plan (including awards held by our named executive officers) will generally become fully vested and, in the case of options, exercisable. Any options that become vested in connection with a change in control generally must be exercised prior to the change in control or they will be cancelled in exchange for the right to receive a cash payment in connection with the change in control transaction.

For more information regarding these arrangements, please see “Potential Payments upon Termination or Change in Control” below.

#### No Tax Gross-Ups for “Parachute Payments”

Our executive compensation agreements do not provide any executive a 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”).

#### Separation Agreements

Mr. Bianco resigned as our Executive Vice President, Finance and Administration, effective March 13, 2017, and Dr. Plunkett resigned as our Executive Vice President, Chief Business Officer, effective August 22, 2017. In connection with each of these resignations,

the Company entered into a separation agreement with the executive that included certain severance benefits (and, in Dr. Plunkett's case, a consulting agreement with the Company following his termination). Each separation agreement was negotiated with the executive and includes his general release of claims and certain covenants in favor of the Company. The terms of these agreements are described in more detail below under "Potential Payments Upon Termination or Change in Control."

#### Executive Compensation Decisions After 2017 Fiscal-Year End

On March 9, 2018, the Company granted options to purchase shares of our common stock under the 2017 Plan to Dr. Craig (475,000 options), Mr. Kirske (83,396 options), Mr. Seeley (134,906 options) and Dr. Singer (94,433 options). Each stock option is scheduled to vest in six substantially equal installments, with an installment vesting every six months over the three-year period following the date of grant.

#### Compensation Clawback Policy

The Company has implemented a Policy Regarding the Recoupment of Certain Compensation Payments (a compensation "clawback" policy) under which we may require reimbursement or cancellation of any cash bonus or incentive payment to an officer or employee where the amount of any such cash payment was determined based on the achievement of financial results that were subsequently the subject of an accounting restatement due to material noncompliance with any financial reporting requirement under the securities laws and a lesser payment would have been made to the individual based upon the restated financial results.

#### Anti-Hedging Policy

To help ensure that directors and officers do not engage in transactions that would allow them to gain from declines in the price of Company securities, the Company adopted an amendment to our Insider Trading Policy in December 2015 that restricts our directors and officers from engaging in any hedging or monetization transaction that might allow them to gain from or offset any decrease in the market value of Company securities.

#### Anti-Pledging Policy

To help ensure that the directors and officers maintain sufficient control over the timing of their transactions in Company securities, the Company adopted an amendment to our Insider Trading Policy in December 2015 that prohibits our directors and officers from margining any Company securities in a margin account or otherwise pledging any Company securities as collateral for a loan.

#### Stock Ownership Policy

We believe that members of the Board and our executive officers should hold Company stock to further align their interests with the interests of our shareholders. Accordingly, the Company has adopted a Stock Ownership Policy applicable to members of the Board and all of our executive officers. Under the Stock Ownership Policy, our Chief Executive Officer should own Company common stock with a fair market value of at least six times his annual base salary, each of our executive officers should own Company common stock with a fair market value of at least one times his annual base salary, and each member of the Board not employed by us should own Company common stock with a fair market value of at least five times the base annual cash retainer then in effect under the Company's Director Compensation Policy. Shares taken into account under the policy include shares beneficially owned by the individual, including shares held in trust for the benefit of the individual or his family members, and shares subject to Company equity awards held by the individual (other than shares subject to stock option grants and shares subject to awards with unsatisfied performance-based vesting requirements). An individual covered by the guidelines is expected to satisfy the applicable level of ownership by the later of December 31, 2020 or five years after he or she first becomes subject to the policy, need not satisfy any increased level of ownership resulting from a change in position or

compensation until five years after the change, and need not satisfy any shortfall caused by a decline in stock price earlier than two years after the change in stock price. If an individual covered by the guidelines does not satisfy the applicable level of ownership within the applicable time described above, the individual will be expected to hold toward satisfying the policy one-half of the net shares (after reducing the original number of shares for the exercise or purchase price of the award and the estimated tax liability resulting from the exercise, vesting, and payment of the award) acquired upon exercise or payment of a Company equity award that is exercised or paid after that time.

#### Tax Deductibility of Pay

Federal income tax law generally prohibits a publicly-held company from deducting compensation paid to a current or former named executive officer that exceeds \$1 million during the tax year. Certain awards granted before November 2, 2017 that were based upon attaining pre-established performance measures that were set by the company's compensation committee under a plan approved by the company's shareholders, as well as amounts payable to former executives pursuant to a written binding contract that was in effect on November 2, 2017, may qualify for an exception to the \$1 million deductibility limit.

As one of the factors in its consideration of compensation matters, the Compensation Committee notes this deductibility limitation. However, the Compensation Committee has the flexibility to take any compensation-related actions that it determines are in the best interests of the Company and our stockholders, including awarding compensation that may not be deductible for tax purposes. There can be no assurance that any compensation will in fact be deductible.

#### 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 Company's financial and operating performance achievements in determining bonuses that may be awarded to executives under our cash incentive program, the Compensation Committee considers a broad range of 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 potential value tied to long-term stock price performance.

#### Say-on-Pay Vote

At our annual meeting of shareholders held in May 2017, 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 82% of the total number of votes actually cast (disregarding broker non-votes). The Compensation Committee believes this result affirms shareholders' support of our approach to executive compensation generally, including a number of changes we have made to improve our program in recent years, and we did not make significant changes to the program for fiscal year 2017. 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:

David R. Parkinson, M.D., Chair

Laurent Fischer, M.D.

Richard L. Love

Matthew D. Perry

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 2017 (or, in the case of Mr. Love, after he ceased serving as Interim CEO in March 2017 and, in the case of Dr. Parkinson and Dr. Fischer, after their appointment to the Board of Directors in June 2017 and July 2017, respectively). No director who served on the Compensation Committee during fiscal year 2017 is or has been an executive officer of the Company (in the case of Mr. Love, after his service as Interim CEO) 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 2017.

#### Summary Compensation Table - Fiscal Years 2015-2017

The following table sets forth information concerning compensation for fiscal years 2015, 2016 and 2017 for services rendered to the Company by the "named executive officers" identified at the beginning of the "Compensation Discussion and Analysis" above.

| Name and Principal Position                                                                                                                                   | Year | Salary<br>(\$) | Bonus<br>\$(1) | Stock<br>Awards<br>\$(2)(3) | Option<br>Awards<br>\$(2) | All Other<br>Compensation<br>\$(4) | Total<br>(\$) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|----------------|-----------------------------|---------------------------|------------------------------------|---------------|
| Adam R. Craig, M.D.,<br>President and Chief Executive Officer (5)                                                                                             | 2017 | 433,653        | 382,500        | -                           | 4,453,440                 | 298,396                            | 5,567,989     |
| David H. Kirske<br>Executive Vice President, Chief Financial<br>Officer (6)                                                                                   | 2017 | 122,776        | 42,971         | -                           | 740,708                   | 51,538                             | 957,993       |
| Jack W. Singer, M.D.<br>Executive Vice President, Chief Scientific<br>Officer, Interim Chief Medical Officer and<br>Global Head of Translational Medicine (7) | 2017 | 400,000        | 120,000        | -                           | 427,618                   | 33,600                             | 981,218       |
|                                                                                                                                                               | 2016 | 400,000        | 90,000         | -                           | 34,800                    | 32,994                             | 557,794       |
|                                                                                                                                                               | 2015 | 370,000        | 111,000        | 1,126,322                   | 1,563,510                 | 39,102                             | 3,209,934     |
| Bruce J. Seeley<br>Executive Vice President, Chief Operating<br>Officer (8)                                                                                   | 2017 | 384,827        | 125,439        | -                           | 938,978                   | 8,100                              | 1,457,344     |
|                                                                                                                                                               | 2016 | 375,000        | 124,375        | -                           | -                         | 3,975                              | 503,350       |
|                                                                                                                                                               | 2015 | 163,461        | -              | 697,429                     | 905,190                   | -                                  | 1,766,080     |
| Richard L. Love<br>Former Interim Chief Executive Officer and<br>President (9)                                                                                | 2017 | 93,461         | -              | -                           | -                         | 24,627                             | 118,088       |
|                                                                                                                                                               | 2016 | 90,000         | -              | -                           | 266,000                   | 29,829                             | 385,829       |
| Louis A. Bianco<br>Former Executive Vice President, Finance<br>and Administration (10)                                                                        | 2017 | 105,768        | -              | -                           | -                         | 760,694                            | 866,462       |
|                                                                                                                                                               | 2016 | 375,000        | -              | -                           | -                         | 9,971                              | 384,971       |
|                                                                                                                                                               | 2015 | 360,000        | 90,000         | 1,126,322                   | 1,316,640                 | 28,145                             | 2,921,107     |
| Matthew Plunkett, Ph.D.<br>Former Executive Vice President, Chief<br>Business Officer (11)                                                                    | 2017 | 283,199        | -              | -                           | 177,378                   | 282,634                            | 743,211       |
|                                                                                                                                                               | 2016 | 360,000        | 135,000        | -                           | -                         | 4,306                              | 499,306       |
|                                                                                                                                                               | 2015 | 325,000        | 81,250         | 1,126,322                   | 1,152,060                 | 9,137                              | 2,693,769     |

This column reflects amounts awarded to the named executive officers under our annual bonus program. Please see the “Compensation Discussion and Analysis” above for a description of the bonuses for the named executive officers (1) for fiscal 2017. In addition, for 2017, this column includes a signing bonus of \$80,000 awarded to Dr. Craig under his new employment agreement entered into during the year, and, for 2016, this column includes a special retention bonus of \$40,000 awarded to Mr. Seeley during the year.

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 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 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.

These amounts in the “Stock Awards” and “Option Awards” columns do not necessarily correspond to the actual cash (2) 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 12 (Share-Based Compensation) to the Company’s Consolidated Financial Statements for the fiscal year ended December 31, 2017, included in the Company’s 2017 Annual Report filed with the SEC on March 7, 2018.

Even though the option awards granted to the named executive officers in 2016 and 2017 have value for purposes of and as disclosed in the “Summary Compensation Table” above in accordance with applicable SEC rules, these options will have value for the award recipient only if the price of our common shares appreciates above the respective exercise price.

A portion of the “Stock Awards” compensation for fiscal year 2015 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 certain long-term equity awards that included 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 2015 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 2015: (i) the grant date fair value (or, in the case of modified awards, the incremental fair (3) value as of the modification date) included in the “Stock Awards” column as to the awards granted (or modified, as the case may be) in that 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; 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). No long-term performance-based awards were granted in 2016 or 2017.

|      |              |              |
|------|--------------|--------------|
| Name | Aggregate    | Aggregate    |
|      | Fair Value - | Fair Value - |
|      | Based on     | Based on     |

|                         | Probable<br>Outcome<br>(\$)<br>2015 | Maximum<br>Performance<br>(\$) |
|-------------------------|-------------------------------------|--------------------------------|
| Adam R. Craig, M.D.     | —                                   | —                              |
| David H. Kirske         | —                                   | —                              |
| Jack W. Singer, M.D.    | —                                   | 6,423,051                      |
| Bruce J. Seeley         | 139,429                             | 4,845,208                      |
| Richard L. Love         | —                                   | —                              |
| Louis A. Bianco         | —                                   | 6,423,051                      |
| Matthew Plunkett, Ph.D. | —                                   | 4,705,779                      |

(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:

| Name                    | Executive Health Benefits (\$) | Life Insurance Premiums (\$) | 401(k) Match (\$) | Other Personal Benefits (\$) | Total (\$) |
|-------------------------|--------------------------------|------------------------------|-------------------|------------------------------|------------|
| Adam R. Craig, M.D.     | —                              | —                            | 8,100             | 290,296(a)                   | 298,396    |
| David H. Kirske         | —                              | —                            | —                 | 51,538 (b)                   | 51,538     |
| Jack W. Singer, M.D.    | 25,500                         | —                            | 8,100             | —                            | 33,600     |
| Bruce J. Seeley         | —                              | —                            | 8,100             | —                            | 8,100      |
| Richard L. Love         | —                              | —                            | —                 | 24,627 (c)                   | 24,627     |
| Louis A. Bianco         | —                              | —                            | —                 | 760,694(d)                   | 760,694    |
| Matthew Plunkett, Ph.D. | —                              | —                            | 7,344             | 275,290(e)                   | 282,634    |

(a) This amount includes \$20,009 for temporary housing allowance, \$120,000 for relocation expenses, and \$150,287 for consulting fees prior to commencing employment with the Company in March 2017.

(b) This amount includes \$51,538 for consulting fees prior to commencing employment with the Company in August 2017.

(c) This amount includes \$17,472 for temporary housing in Seattle, \$3,349 for travel expenses to and from Mr. Love's personal residence, \$2,395 for family member travel in connection with Mr. Love's position as Interim President and Chief Executive Officer and \$1,411 for tax liabilities incurred in connection with the Company's payment of living and travel expense.

(d) This amount includes \$675,000 for cash severance, \$43,268 for vacation time paid out upon termination, \$41,104 for estimated costs of health insurance premiums, \$447 for security expenses and \$875 for club membership dues. For more information, please see below under "Potential Payments Upon Termination or Change in Control--Separation Agreement with Mr. Bianco."

(e) This amount includes \$265,000 for cash severance and \$10,290 for consulting fees. For more information, please see below under "Potential Payments Upon Termination or Change in Control--Separation Agreement with Mr. Plunkett."

(5) Dr. Craig was appointed President and Chief Executive Officer of the Company, effective March 20, 2017.

(6) Mr. Kirske was appointed principal financial and accounting officer of the Company, effective August 1, 2017. He was appointed Executive Vice President, Chief Financial Officer of the Company, effective September 21, 2017.

All compensation reflected in this table for Dr. Singer was paid in connection with his service as an officer of the Company and not in connection with his service as a director. Except in the case of footnote (9) below, the Company does not pay director compensation to directors who are also employees of the Company. Dr. Singer resigned as a director effective June 2, 2017.

(7) The "Option Awards" column for Dr. Singer for 2016 includes \$34,800, which represents the grant-date fair value (as determined under generally accepted accounting principles) of an option to acquire 300,000 shares of common stock of Aequis, a majority-owned subsidiary of the Company ("Aequis"), granted to Dr. Singer in December 2016. For purposes of calculating this grant-date fair value, the value of a share of Aequis common stock was determined to be \$0.116 as of the grant date, and the following assumptions were used: a risk-free interest rate of 1.74%, an expected option term of 5.5 years, a volatility factor of 60.7% and no dividend yield.

(8) Effective March 13, 2017, Mr. Seeley assumed the title of Executive Vice President, Chief Commercial and Administrative Officer and served as the Company's principal financial and accounting officer from March 13, 2017 until August 1, 2017. Mr. Seeley was appointed as Executive Vice President, Chief Operating Officer of the Company, effective September 21, 2017.

(9) Mr. Love was appointed our interim Chief Executive Officer and President effective as of October 2, 2016 and served in that position until March 20, 2017 when Dr. Craig was appointed the Company's Chief Executive Officer and President. All compensation reflected in this table for Mr. Love was paid in connection with his services as an officer and employee of the Company for the period from October 2, 2016 through March 20, 2017 and not in connection with his services as a director of the Company before and after that period. The compensation paid in connection with his services as a non-employee director of the Company during the period between March 21, 2017 and December 31, 2017 is reported in the "Non-Employee Director Compensation Table" below.

(10) Mr. Bianco resigned as Executive Vice President, Finance and Administration of the Company effective March 13, 2017.

(11) Dr. Plunkett resigned as Executive Vice President, Chief Business Officer of the Company effective August 22, 2017.

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 2017” table provides information regarding the incentives awarded to the named executive officers in fiscal year 2017. The “Outstanding Equity Awards at Fiscal 2017 Year-End” and “Option Exercises and Stock Vested - Fiscal Year 2017” 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 and includes a description of the severance and other benefits provided to Mr. Bianco and Dr. Plunkett in connection with their resignations during the year.

#### Description of Employment Agreements-Cash Compensation

In February 2017, the Company entered into an employment agreement with Dr. Craig in connection with his joining the Company as its President and Chief Executive Officer. The employment agreement has a five-year term, with automatic one-year renewals unless either party gives notice that the term will not be extended. The agreement provides for Dr. Craig to receive an initial annual base salary of \$550,000 and to have a target annual bonus level of 55% of base salary, both of which may be increased but not decreased in the Compensation Committee’s sole discretion. Dr. Craig will be eligible to participate in the Company’s employee benefit plans and will accrue four weeks paid time off per year. In joining the Company, Dr. Craig agreed to relocate to the Seattle, Washington area no later than September 1, 2017 (and Dr. Craig did in fact relocate to Seattle prior to that date). The agreement provides that prior to his relocation, the Company will pay him \$7,000 per month to assist with the cost of temporary living in Seattle and travel between his personal residence and Seattle and will pay for or provide him with temporary housing to cost not more than \$5,500 per month. The agreement also provides for Dr. Craig to receive a signing bonus of \$80,000 in connection with his commencement of employment and \$120,000 to assist with the relocation of his personal residence to Seattle, each of which is subject to repayment to the Company if his employment terminates prior to March 20, 2018 (or, in the case of the relocation payment, prior to the first anniversary of his relocation to Seattle), other than a termination by the Company without “Cause,” by him for “Good Reason,” or due to his death or “Disability” (as such terms are defined in the agreement).

In connection with his appointment as our principal financial and accounting officer, we entered into an offer letter with Mr. Kirske in July 2017. The letter provided that his employment with the Company would be on a temporary basis (for six months as noted above, subject to extension in six-month increments) and on a part-time basis (for 30 hours per week). The letter provided for Mr. Kirske to receive base salary at an annual rate of \$185,000 and to be eligible for a short-term discretionary bonus at a target of 24% of his base salary, as well as being eligible to participate in the Company’s standard employee benefit programs. In September 2017, Mr. Kirske was appointed as our Chief Financial Officer and commenced full-time employment, with his annual base salary level being increased to \$350,000 and his target annual bonus being set at 35% of his base salary.

In October 2016, the Company entered into a compensation letter agreement with Mr. Love that provided for his employment as our interim Chief Executive Officer and President. The letter did not have a specified term and provided for Mr. Love to receive a base salary at a monthly rate of \$30,000 and reimbursements for Mr. Love’s expenses for temporary housing in Seattle, travel to and from his personal residence, and tax liabilities incurred in connection with these temporary living and travel benefits. During his employment, Mr. Love was eligible to participate in the benefit programs offered by the Company. The letter agreement terminated when Mr. Love stepped down as interim Chief Executive Officer and President in March 2017.

In July 2015, the Company entered into an offer letter with Mr. Seeley. The letter does not have a specified term and provides for Mr. Seeley to receive an initial annualized base salary of \$375,000. Mr. Seeley 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. In September 2017, Mr. Seeley's annual base salary level was increased to \$410,000 in connection with his appointment as our Chief Operating Officer, and his target annual bonus was increased to 40% of base salary, effective for 2018.

Provisions of the foregoing agreements relating to equity incentive awards, as well as post-termination and change in control benefits provided under Dr. Craig's employment agreements and severance agreements we have entered into with our other current executive officers, are discussed below under the applicable sections of this Proxy Statement.

#### Grants of Plan-Based Awards - Fiscal Year 2017

The following table presents information regarding the equity awards granted to the named executive officers in fiscal year 2017.

| Name/Award Type         | Grant Date | Option Awards: Number of Securities Underlying Options (#)(1) | Exercise or Base Price of Option Awards (\$/Sh) | Grant Date Fair Value of Stock and Option Awards \$(2) |
|-------------------------|------------|---------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------|
| Adam R. Craig, M.D.     |            |                                                               |                                                 |                                                        |
| Stock Option (3)        | 3/20/2017  | 1,200,000                                                     | 4.24                                            | 3,474,240                                              |
| Stock Option (4)        | 9/29/2017  | 450,000                                                       | 3.19                                            | 979,200                                                |
| David H. Kirske         |            |                                                               |                                                 |                                                        |
| Stock Option (5)        | 8/31/2017  | 25,000                                                        | 3.25                                            | 55,268                                                 |
| Stock Option (4)        | 9/29/2017  | 315,000                                                       | 3.19                                            | 685,440                                                |
| Jack W. Singer, M.D.    |            |                                                               |                                                 |                                                        |
| Stock Option (6)        | 3/1/2017   | 60,000                                                        | 4.33                                            | 177,378                                                |
| Stock Option (4)        | 9/29/2017  | 115,000                                                       | 3.19                                            | 250,240                                                |
| Bruce J. Seeley         |            |                                                               |                                                 |                                                        |
| Stock Option (6)        | 3/1/2017   | 60,000                                                        | 4.33                                            | 177,378                                                |
| Stock Option (4)        | 9/29/2017  | 350,000                                                       | 3.19                                            | 761,600                                                |
| Richard L. Love         | -          | -                                                             | -                                               | -                                                      |
| Louis A Bianco          | -          | -                                                             | -                                               | -                                                      |
| Matthew Plunkett, Ph.D. |            |                                                               |                                                 |                                                        |
| Stock Option (6)        | 3/1/2017   | 60,000                                                        | 4.33                                            | 177,378                                                |

The awards listed in these columns granted prior to May 16, 2017 were granted under and subject to the terms of the Company's 2015 Equity Incentive Plan, as amended (the "2015 Plan"), other than a portion of the March 20, 2017 grant to Dr. Craig, which was granted on a stand-alone basis as an "inducement grant" in accordance with NASDAQ Listing Rule 5635(c)(4). The awards listed in these columns granted after May 16, 2017 were granted under and subject to the terms of the Company's 2017 Equity Incentive Plan (the "2017 Plan"). The Compensation Committee administers and has authority to interpret the 2015 Plan and 2017 Plan provisions (as well as the option agreement for Dr. Craig's inducement grant) 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 Termination or Change in Control" below for additional discussion concerning the termination of employment and change in control terms applicable to these awards.

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 12 (Share-Based Compensation) to the Company's Consolidated Financial Statements for the fiscal year ended December 31, 2017, included in the Company's 2017 Annual Report filed with the SEC on March 7, 2018.

This option vests in six semi-annual installments over the three-year period following the grant date. This option was granted pursuant to Dr. Craig's employment agreement described above and, to the extent then outstanding and unvested, would fully vest if either (i) following a change in control of the Company, Dr. Craig's employment is terminated by the Company without Cause or by him for Good Reason (as such terms are defined in the employment agreement) or (ii) his employment terminates due to his death or Disability (as defined in the agreement).

These options vest in six semi-annual installments over the three-year period following the grant date. The grants to Mr. Kirske and Mr. Seeley were made in connection with their appointments as Chief Financial Officer and

Chief Operating Officer, respectively.

This option vests in twelve monthly installments over the one-year period following the grant date. This option was granted pursuant to Mr. Kirske's offer letter described above and, to the extent then outstanding and unvested, (5) would fully vest if Mr. Kirske's employment is terminated by the Company without Cause (as defined in the letter) within the first six months after his August 1, 2017 start date.

These options vest in six semi-annual installments over the three-year period following the grant date. Dr. (6) Plunkett's option became fully vested pursuant to the terms of his separation and release agreement dated August 22, 2017.

#### Outstanding Equity Awards at Fiscal 2017 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, 2017, including the vesting dates for the portions of these awards that had not vested as of that date.

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| Name/Award Type(1)   | Grant Date | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Options (#) Unexercisable | Option Exercise Price (\$) | Option Expiration Date | Number of Shares or Units of Stock That Have Not Vested (#) | Market Value of Shares or Units of Stock That Have Not Vested (\$)(2) |
|----------------------|------------|---------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------|------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------|
| Adam R. Craig        |            |                                                                     |                                                                       |                            |                        |                                                             |                                                                       |
| Option (3)           | 3/20/2017  | 200,000                                                             | 1,000,000                                                             | \$4.24                     | 3/20/2027              | -                                                           | -                                                                     |
| Option (4)           | 9/29/2017  | -                                                                   | 450,000                                                               | \$3.19                     | 9/29/2027              | -                                                           | -                                                                     |
| David H. Kirske      |            |                                                                     |                                                                       |                            |                        |                                                             |                                                                       |
| Option (5)           | 8/31/2017  | 8,333                                                               | 16,667                                                                | \$3.25                     | 8/31/2027              | -                                                           | -                                                                     |
| Option (4)           | 9/29/2017  | -                                                                   | 315,000                                                               | \$3.19                     | 9/29/2017              | -                                                           | -                                                                     |
| Jack W. Singer, M.D. |            |                                                                     |                                                                       |                            |                        |                                                             |                                                                       |
| Option               | 12/10/2013 | 19,998                                                              | -                                                                     | \$17.70                    | 12/10/2023             | -                                                           | -                                                                     |
| Option (6)           | 12/23/2015 | 95,000                                                              | 95,000                                                                | \$12.40                    | 12/23/2025             | -                                                           | -                                                                     |
| Option (7)           | 3/1/2017   | 10,000                                                              | 50,000                                                                | \$4.33                     | 3/1/2027               | -                                                           | -                                                                     |
| Option (4)           | 9/29/2017  | -                                                                   | 115,000                                                               | \$3.19                     | 9/29/2027              | -                                                           | -                                                                     |
| Aequus               |            |                                                                     |                                                                       |                            |                        |                                                             |                                                                       |
| Option (8)           | 12/13/2016 | 150,000                                                             | 150,000                                                               | \$0.20                     | 12/13/2026             | -                                                           | -                                                                     |
| Bruce J. Seeley      |            |                                                                     |                                                                       |                            |                        |                                                             |                                                                       |
| Option (6)           | 12/23/2015 | 27,500                                                              | 82,500                                                                | \$12.40                    | 12/23/2025             | -                                                           | -                                                                     |
| Option (7)           | 3/1/2017   | 10,000                                                              | 50,000                                                                | \$4.33                     | 3/1/2027               | -                                                           | -                                                                     |
| Option (4)           | 9/29/2017  | -                                                                   | 350,000                                                               | \$3.19                     | 9/29/2027              | -                                                           | -                                                                     |
| Restricted Stock (9) | 7/27/2015  |                                                                     |                                                                       |                            |                        | 10,000                                                      | \$26,800                                                              |
| Richard L. Love      |            |                                                                     |                                                                       |                            |                        |                                                             |                                                                       |
| Option (10)          | 6/19/2008  | 12                                                                  | -                                                                     | \$1,530.00                 | 6/19/2018              | -                                                           | -                                                                     |
| Option (10)          | 10/20/2009 | 100                                                                 | -                                                                     | \$321.00                   | 10/20/2019             | -                                                           | -                                                                     |
| Option (10)          | 9/16/2010  | 100                                                                 | -                                                                     | \$114.00                   | 9/16/2020              | -                                                           | -                                                                     |
| Option (10)          | 11/11/2011 | 100                                                                 | -                                                                     | \$57.00                    | 11/11/2021             | -                                                           | -                                                                     |
| Option (10)          | 12/10/2013 | 10,000                                                              | -                                                                     | \$17.70                    | 12/10/2023             | -                                                           | -                                                                     |
| Option (10)          | 12/29/2015 | 10,000                                                              | -                                                                     | \$12.70                    | 12/29/2025             | -                                                           | -                                                                     |
| Option (11)          | 10/20/2016 | -                                                                   | 50,000                                                                | \$4.09                     | 10/20/2026             | -                                                           | -                                                                     |
| Option               | 10/20/2016 | 50,000                                                              | -                                                                     | \$4.09                     | 10/20/2026             | -                                                           | -                                                                     |
| Option (10)(12)      | 9/20/2017  | -                                                                   | 50,000                                                                | \$4.25                     | 9/20/2027              | -                                                           | -                                                                     |

Louis A.  
Bianco

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|        |            |         |          |              |
|--------|------------|---------|----------|--------------|
| Option | 12/10/2013 | 19,998  | -\$17.70 | 12/13/2018-- |
| Option | 12/23/2015 | 160,000 | -\$12.40 | 12/13/2018-- |

Matthew Plunkett, Ph.D.

|        |            |        |          |              |
|--------|------------|--------|----------|--------------|
| Option | 12/10/2013 | 29,998 | -\$17.70 | 2/22/2019 -- |
| Option | 12/23/2015 | 52,500 | -\$12.40 | 2/22/2019 -- |
| Option | 3/1/2017   | 60,000 | -\$4.33  | 2/22/2019 -- |

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

(2) The dollar amounts shown in this column is determined by multiplying the applicable number of shares or units by \$2.68 (the closing price of the Company's common stock on the last trading day of fiscal year 2017).

(3) These options vest in six semi-annual installments, with the first such vesting on September 20, 2017 and the sixth and final such installment vesting on March 20, 2020.

(4) These options vest in six semi-annual installments, with the first such vesting on March 29, 2018 and the sixth and final such installment vesting on September 29, 2020.

(5) This option vests in twelve monthly installments, with the first such installment vesting on September 30, 2017 and the final such installment vesting on August 31, 2018.

(6) These options vest in eight semi-annual installments, with the first such installment vesting on June 23, 2016 and the eighth and final such installment vesting on December 23, 2019.

(7) These options vest in six semi-annual installments, with the first such vesting on September 1, 2017 and the sixth and final such installment vesting on March 1, 2020.

(8) This option (which covers shares of common stock of Aequis, our majority-owned subsidiary, as described above) vests in four semi-annual installments, with the first such installment vesting on April 26, 2017 and the final such installment vesting on October 26, 2018.

(9) This award vests in three equal installments from the date of grant with the remaining tranche scheduled to vest on July 27, 2018.

(10) These options were granted in connection with Mr. Love's services as a non-employee director of the Company before and after his service as our interim Chief Executive Officer and President from October 2, 2017 through March 20, 2017.

(11) These options vest in six monthly installments over the six-month period after the grant date; provided however, no portion of these options shall be considered vested unless the Company receives approval of a new drug application for pacritinib prior to October 2, 2018.

(12) This option is scheduled to vest in full on the earlier of (i) one year after the Grant Date or (ii) immediately prior to the Corporation's first annual meeting of shareholders in 2018 at which one or more members of the Board are to be elected.

Option Exercises and Stock Vested - Fiscal Year 2017

The following table presents information regarding the vesting during fiscal year 2017 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 2017.

| Name                    | Option Awards |             | Stock Awards |            |
|-------------------------|---------------|-------------|--------------|------------|
|                         | Number of     | Value       | Number of    | Value      |
|                         | Shares        | Realized    | Shares       | Realized   |
|                         | Acquired on   | on Exercise | Acquired on  | on Vesting |
|                         | Exercise (#)  | (\$)        | Vesting (#)  | (\$)(1)    |
| Adam R. Craig, M.D.     | -             | -           | -            | -          |
| David H. Kirske         | -             | -           | -            | -          |
| Jack W. Singer, M.D.    | -             | -           | -            | -          |
| Bruce J. Seeley         | -             | -           | 10,000       | \$33,800   |
| Richard L. Love         | -             | -           | 34,736       | \$145,544  |
| Louis A. Bianco         | -             | -           | -            | -          |
| Matthew Plunkett, Ph.D. | -             | -           | -            | -          |

The dollar amounts shown in this column for stock awards are determined by multiplying the number of shares or (1) 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. The following section also describes the severance benefits that became payable to Mr. Bianco in connection with his resignation as our Executive Vice President, Finance and Administration in March 2017 and to Dr. Plunkett in connection with his resignation as Chief Business Officer in August 2017.

##### Named Executive Officers' Termination Benefits

Under Dr. Craig's employment agreement with the Company described above, if his employment is terminated by the Company without Cause, due to his death or Disability, or by him for Good Reason (as such terms are defined in the agreement), he will be entitled to receive, subject to providing a release of claims and abiding by certain restrictive covenants set forth in the agreement, (i) an amount equal to one and one-half times the sum of his annual base salary at the rate then in effect and his target incentive bonus amount for the year in which his termination occurs, such amount to be payable in six equal monthly installments (or to be paid in a lump sum if such termination occurs on or within two years after a change in control of the Company), (ii) reimbursement for COBRA premiums for up to eighteen months, (iii) reimbursement for life insurance premiums for eighteen months (to the extent life insurance coverage was in effect and paid for by the Company at the time of his termination), and (iv) payment of any incentive bonus due to him (but not previously paid) for the fiscal year prior to the termination of his employment.

The Company has entered into severance agreements with Mr. Kirske, Dr. Singer and Mr. Seeley. These severance agreements provide 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), he will receive the following termination benefits:

- cash severance equal to a specified number of months of his base salary (18 months for Dr. Singer and Mr. Seeley, 12 months for Mr. Kirske), to be paid in monthly installments over the applicable period;

- additional cash severance equal to the greater of the average of his three prior years' bonuses or a specified percentage of the executive's base salary (30% for Dr. Singer and Mr. Seeley, 35% for Mr. Kirske);
- reimbursement for up to the eighteen months (or twelve months for Mr. Kirske) by the Company for COBRA premiums to continue his medical coverage and that of his eligible dependents;
- continued payment for up to eighteen months (or twelve months for Mr. Kirske) 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 outstanding and vested stock options remaining exercisable for three months following the termination date).

Change in Control Benefits

In the event of a change in control of the Company, in accordance with the Company's equity incentive plans, all of the outstanding equity-based awards (including the awards held by the named executive officers) 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 the executive's employment or severance agreement).

#### Quantification of Termination and Change in Control Benefits

The termination and change in control benefits under the agreements with our named executive officers who were employed by us as of December 31, 2017 are presented in the table below, assuming in each case that the executive terminated employment with us under circumstances that would trigger severance as described above and that the termination of employment and/or change in control that triggered such benefits occurred on December 31, 2017.

| Name                                    | Benefits in Connection with Termination (Outside of Change in Control)<br>(\$) | Benefits in Connection with Change in Control (No Termination)<br>(\$) | Benefits Upon Termination in Connection with a Change in Control<br>(\$) |
|-----------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Adam R. Craig, M.D.                     |                                                                                |                                                                        |                                                                          |
| Cash Benefits (1)                       | 1,278,750                                                                      | -                                                                      | 1,278,750                                                                |
| Medical/Life Insurance continuation (2) | 55,517                                                                         | -                                                                      | 55,517                                                                   |
| Equity acceleration (3)                 | -                                                                              | -                                                                      | -                                                                        |
| Total                                   | 1,334,267                                                                      | -                                                                      | 1,334,267                                                                |
| David H. Kirske                         |                                                                                |                                                                        |                                                                          |
| Cash Benefits (1)                       | 472,500                                                                        | -                                                                      | 472,500                                                                  |
| Medical/Life Insurance continuation (2) | 33,500                                                                         | -                                                                      | 33,500                                                                   |
| Equity acceleration (3)                 | -                                                                              | -                                                                      | -                                                                        |
| Total                                   | 506,000                                                                        | -                                                                      | 506,000                                                                  |
| Jack W. Singer, M.D.                    |                                                                                |                                                                        |                                                                          |
| Cash Benefits (1)                       | 720,000                                                                        | -                                                                      | 720,000                                                                  |
| Medical/Life Insurance continuation (2) | 88,942                                                                         | -                                                                      | 88,942                                                                   |
| Equity acceleration (3)                 | -                                                                              | -                                                                      | -                                                                        |
| Total                                   | 808,942                                                                        | -                                                                      | 808,942                                                                  |

|                     |         |   |         |
|---------------------|---------|---|---------|
| Bruce J. Seeley     |         |   |         |
| Cash Benefits (1)   | 739,907 | - | 739,907 |
| Medical/Life        |         |   |         |
| Insurance           | 49,514  | - | 49,514  |
| continuation (2)    |         |   |         |
| Equity acceleration |         |   |         |
| (3)                 | 26,800  | - | 26,800  |
| Total               | 816,221 | - | 816,221 |

For Dr. Craig, this amount represents one and one-half times the sum of his annual base salary and his target incentive bonus amount. For each other named executive officer, this amount represents the sum of (i) eighteen months of the executive's base salary (or twelve months for Mr. Kirske) and (ii) the greater of the executive's average annual bonus for the preceding three years or 30% of the executive's base salary (or 35% for Mr. Kirske).

For each of the named executive officers, this amount represents the aggregate estimated cost of the premiums that would be charged to continue health coverage for the applicable period (twelve months for Mr. Kirske, 18 months for ~~(1)~~ other executives) pursuant to COBRA for the executive and his eligible dependents (to the extent that such dependents were receiving health benefits as of December 31, 2017) and to maintain life insurance paid for by the Company for such period, in each case to the extent provided in the applicable severance agreement.

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 \$2.68 (the closing price of the Company's common stock on the last trading day of fiscal year 2017) by the number of shares subject to the accelerated portion of the award. For options, this value is calculated by multiplying (i) the amount (if any) by which \$2.68 (the closing price of the Company's common stock on the last trading day of fiscal year 2017) exceeds the per-share exercise price of the option, by (ii) the number of shares subject to the accelerated portion of the award.

These calculations assume that the Compensation Committee provides for the continuation or assumption of the awards following a change in control and that, as a result, the applicable awards will continue in effect if the named executive officer's employment continues following the transaction. Accordingly, the "Benefits in Connection with Change in Control (No Termination)" column reflects only awards that would automatically vest in connection with a change in control. If the Compensation Committee does not provide for the continuation or assumption of awards following a change in control, each named executive officer's awards would automatically vest pursuant to the Company's equity incentive plan. The value of the equity awards that would vest in those circumstances is the same value reflected for each executive in the "Benefits Upon Termination in Connection with Change in Control" column.

#### Separation Agreement with Mr. Bianco

Mr. Bianco resigned as our Executive Vice President, Finance and Administration, effective March 13, 2017. In connection with his resignation, the Company entered into a Separation and Release Agreement with Mr. Bianco that provides for him to receive cash severance payments totaling \$675,000, paid over 18 months, and payment of his health and life insurance premiums for up to 18 months following his resignation. Each of Mr. Bianco's outstanding stock options granted by the Company fully vested and will generally remain exercisable for 21 months following his resignation date, subject to the expiration date of the option or earlier termination in connection with a change in control of the Company. The agreement also includes a general release of claims by Mr. Bianco in favor of the Company.

#### Separation Agreement with Dr. Plunkett

Dr. Plunkett resigned as our Executive Vice President, Chief Business Officer, effective August 22, 2017. In connection with his resignation, the Company entered into a Separation and Release Agreement with Dr. Plunkett that provides for him to receive a cash severance payment of \$265,000, paid in a lump sum in January 2018, and payment of his health and life insurance premiums for up to six months following his resignation. Dr. Plunkett also entered into an agreement with the Company to provide consulting services for 12 months following his separation for a consulting

fee of \$3,000 per month (plus \$300 per hour for services in excess of ten hours for a particular month). Pursuant to the separation agreement, Dr. Plunkett's stock option granted by the Company on March 1, 2017 became fully vested and exercisable upon his resignation date, and each of his outstanding and vested stock options granted by the Company will generally remain exercisable until the earlier of the date that is 18 months following his resignation date or the expiration date of the option, subject to earlier termination in connection with a change in control of the Company. His remaining outstanding and unvested equity awards granted by the Company terminated on his resignation date. The agreement also includes a general release of claims by Dr. Plunkett in favor of the Company.

#### CEO PAY-RATIO DISCLOSURE

Pursuant to the Securities Exchange Act of 1934, as amended, we are required to disclose in this proxy statement the ratio of the total annual compensation of our Chief Executive Officer ("CEO") to the median of the total annual compensation of all of our employees (excluding our CEO). Based on SEC rules for this disclosure and applying the methodology described below, we have determined that our CEO's total compensation for 2017 was \$5,567,989, and the median of the total compensation of all of our employees

(excluding our CEO) for 2017 was \$169,588. Accordingly, we estimate the ratio of our CEO's total compensation for 2017 to the median of the total compensation of all of our employees (excluding our CEO) for 2017 to be 32.8 to 1. We selected December 31, 2017, which is a date within the last three months of fiscal 2017, as the date we would use to identify our median employee. To find the median of the annual total compensation of all our employees (excluding our CEO), we used the amount of salary, wages, overtime and bonus from our payroll records. In making this determination, we annualized the compensation for those employees who were hired during fiscal 2017 as permitted under SEC rules. We also annualized our CEO's compensation as reported in the "Summary Compensation Table" above as he served as CEO for only a portion of 2017. We did not make any cost-of-living adjustments in identifying the median employee.

Once the median employee was identified as described above, that employee's total annual compensation for fiscal 2017 was determined using the same rules that apply to reporting the compensation of our named executive officers (including our CEO) in the "Total" column of the Summary Compensation Table above. The total compensation amounts included in the first paragraph of this pay-ratio disclosure were determined based on that methodology. In accordance with applicable SEC rules, we annualized our CEO's compensation as he was not employed by us for the entire fiscal year. Other than his base salary, the elements of the CEO's "Total" compensation for 2017 as reported in the "Summary Compensation Table" were the same as they would have been had he been employed by us for the entire fiscal year and, accordingly, they were not adjusted for purposes of this presentation. With respect to his base salary, the amount of the consulting fee he was paid for his consulting services early in fiscal 2017 before becoming employed by the Company was greater than the amount of base salary he would have received from the Company for that period of time had his CEO base salary been in effect. Because annualizing the CEO's "Total" compensation for this purposes would have resulted in a lower amount, we did not adjust his "Total" compensation for 2017 as reported in the "Summary Compensation Table" for purposes of this presentation.

## DIRECTOR COMPENSATION

## Non-Employee Director Compensation Table - Fiscal Year 2017

The following table presents information regarding the compensation earned for fiscal year 2017 by members of the Board who are not also employees of the Company (or, in the case of Mr. Love, compensation for the period during 2017 after he ceased serving as our interim President and Chief Executive Officer effective March 20, 2017). The compensation paid to Dr. Craig and Dr. Singer for their services as employees of the Company in fiscal year 2017, as well as the compensation paid to Mr. Love for his services as interim President and Chief Executive Officer during 2017, is presented in the “Summary Compensation Table” and the related explanatory tables above. Dr. Craig is not entitled to receive additional compensation for his service as a director, nor was Mr. Love entitled to receive additional compensation for his service as a director while he was serving as our interim Chief Executive Officer. Dr. Singer was also not entitled to receive additional compensation for his service as a director during the portion of 2017 he served as a director.

| Name                            | Fees Earned<br>or Paid in Cash<br>\$(1) | Stock Awards<br>\$(2)(3) | Option Awards<br>\$(2)(3) | All Other<br>Compensation<br>(\$) | Total<br>(\$) |
|---------------------------------|-----------------------------------------|--------------------------|---------------------------|-----------------------------------|---------------|
| James A. Bianco, M.D. (4)       | -                                       | -                        | -                         | 271,634                           | 271,634       |
| Laurent Fischer, M.D. (5)       | 31,833                                  | -                        | 116,140                   | -                                 | 147,973       |
| Richard L. Love (6)             | 75,250                                  | -                        | 101,435                   | -                                 | 176,685       |
| Michael A. Metzger (7)          | 88,500                                  | 100,001                  | 144,860                   | -                                 | 333,361       |
| Phillip M. Nudelman, Ph.D. (8)  | 81,250                                  | -                        | 144,860                   | -                                 | 226,110       |
| David Parkinson, M.D. (9)       | 37,500                                  | -                        | 138,495                   | -                                 | 175,995       |
| Matthew D. Perry                | 92,750                                  | -                        | 144,860                   | -                                 | 237,610       |
| Frederick W. Telling, Ph.D.(10) | 114,000                                 | -                        | 144,860                   | -                                 | 258,860       |
| Reed V. Tuckson, M.D.           | 93,500                                  | -                        | 144,860                   | -                                 | 238,360       |

(1) The amounts reported in the “Fees Earned or Paid in Cash” column reflect the amounts earned with respect to fiscal year 2017 for the director’s retainer and meeting fees.

(2) The amounts reported in the “Stock Awards” and “Option Awards” columns 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 granted to the Company’s non-employee directors (including Mr. Love for the period he was serving as a non-employee director) during fiscal year 2017. 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 12 (Share- Based Compensation) to the Company’s Consolidated Financial Statements for the fiscal year ended December 31, 2017, included in the Company’s 2017 Annual Report filed with the SEC on March 7, 2018.

In accordance with the Company’s Director Compensation Policy as in effect on the applicable date, (1) on January 20, 2017, in connection with his appointment to the Board, Mr. Metzger was granted an award of 20,121 restricted stock units with a grant-date fair value of \$100,001; (2) on February 23, 2017, each of the non-employee directors then in office was granted an annual award of 50,000 stock options with a per-share exercise price of \$4.25 and a grant-date fair value of \$144,860; (3) on June 5, 2017, in connection with his appointment to the Board, Dr. Parkinson was granted an award of 50,000 stock options with a per-share exercise price of \$4.07 and a grant-date fair value of \$138,495; (4) on July 21, 2017, in connection with his appointment to the Board, Dr. Fischer was

granted an award of 50,000 stock options with a a per-share exercise price of \$3.41 and a grant-date fair value of \$116,140; and (5) on September 20, 2017, Mr. Love was granted an award of 50,000 stock options with a a per-share exercise price of \$4.25 and a grant-date fair value of \$101,435.

- (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, 2017.
-

| Director                                                                                                                                                                                                                                                                                                                                                                                             | Number of Shares<br>Subject to Outstanding Options as of<br>12/31/2017 | Number of Unvested Restricted<br>Shares/Units<br>as of 12/31/2017 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------|
| James A. Bianco, M.D.                                                                                                                                                                                                                                                                                                                                                                                | 1,303,927                                                              | -                                                                 |
| Laurent Fischer, M.D.                                                                                                                                                                                                                                                                                                                                                                                | 50,000                                                                 | -                                                                 |
| Richard L. Love                                                                                                                                                                                                                                                                                                                                                                                      | 170,312                                                                | -                                                                 |
| Michael A. Metzger                                                                                                                                                                                                                                                                                                                                                                                   | 50,000                                                                 | 20,121                                                            |
| Phillip M. Nudelman, Ph.D.                                                                                                                                                                                                                                                                                                                                                                           | -                                                                      | -                                                                 |
| David Parkinson, M.D.                                                                                                                                                                                                                                                                                                                                                                                | 50,000                                                                 | -                                                                 |
| Matthew D. Perry                                                                                                                                                                                                                                                                                                                                                                                     | 50,000                                                                 | -                                                                 |
| Frederick W. Telling, Ph.D.                                                                                                                                                                                                                                                                                                                                                                          | 70,312                                                                 | -                                                                 |
| Reed V. Tuckson, M.D.                                                                                                                                                                                                                                                                                                                                                                                | 70,220                                                                 | -                                                                 |
| 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 equity incentive plan or award agreement applicable to that grant) that occurs while such non-employee director is a member of the Board. |                                                                        |                                                                   |

Dr. Bianco did not seek reelection as a director of the Board at the 2017 Annual Meeting of Shareholders. The (4) amount reported in the "All Other Compensation" column for Dr. Bianco includes \$240,000 for consulting fees, \$31,062 for health and life insurance premiums and \$572 for security expenses.

(5) Dr. Fischer was appointed as a member of the Board as of July 21, 2017.

Mr. Love was appointed our Interim President and Chief Executive Officer effective as of October 2, 2016 and served in that capacity through March 20, 2017. All compensation reflected in this table for Mr. Love was paid in connection with his services as a non-employee director of the Company during the period from March 21, 2017 through December 31, 2017. The compensation paid in connection with his services as an officer and employee of the Company from January 1, 2017 through March 20, 2017 is reported in the "Summary Compensation Table" under Executive Compensation.

(7) Mr. Metzger was appointed as a member of the Board as of January 20, 2017.

(8) Dr. Nudelman resigned as a member of the Board effective June 2, 2017.

(9) Dr. Parkinson was appointed as a member of the Board effective June 5, 2017.

## Non-Employee Director Compensation Overview

## Equity Grants

Under the Company's Director Compensation Policy, as amended effective February 23, 2017, the Company's non-employee directors are entitled to the following equity awards: (i) any new non-employee director will receive a stock option in connection with joining the Board, and (ii) in connection with each annual meeting of shareholders, each continuing non-employee director will be entitled to receive a stock option grant. In each case, the Board will determine the number of shares underlying the stock option at the time of grant. Each option will have an exercise price that is not less than the closing price of the Company's common stock on the date of grant of the award and will be scheduled to vest on the date that is twelve months after 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. Each option has a maximum term of 10 years (subject to earlier termination as provided in the applicable option agreement) and is subject to accelerated vesting in connection with a change in control of the Company as noted above.

Prior to February 23, 2017, the Director Compensation Policy provided that any new non-employee director would 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 such award to vest on the date that is twelve months after 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. Pursuant to this provision, Mr. Metzger received a grant of restricted stock units upon his joining the Board in January 2017 as noted above. Restricted stock units that vest are paid in an equal number of shares of the Company's common stock.

## Cash Compensation Policy

Under the Director Compensation Policy, non-employee directors are also entitled to cash compensation in the form of annual retainers for service on the Board and an additional annual retainer for chairing certain committees of the Board. The table below sets forth the amount of the Board and committee chair annual retainers in effect for 2017 and to date for 2018. During 2017, non-employee directors were also entitled to an additional fee of \$2,750 for each meetings of the Board they attended and a fee of \$1,250 for each meeting they attended of Board committees on which they served. Effective January 1, 2018, these meeting fees were eliminated, and non-employee directors are entitled to an additional retainer for service on certain committees of the Board as set forth in the table below (with the chair of the committee being entitled to both the chair and member retainers for that committee).

## Cash Compensation under Director Compensation Policy

|                                                      | Annual Cash Retainer (\$) |
|------------------------------------------------------|---------------------------|
| Board Member, other than Chairman of the Board       | 40,000                    |
| Chairman of the Board                                | 75,000                    |
| Audit Committee Chair                                | 15,000                    |
| Non-Chair Audit Committee Members                    | 9,000                     |
| Compensation Committee Chair                         | 12,500                    |
| Non-Chair Compensation Committee Member              | 7,000                     |
| Nominating and Governance Committee Chair            | 7,500                     |
| Non-Chair Nominating and Governance Committee Member | 4,000                     |

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.

Board Discussion of Non-Employee Director Compensation Philosophy

The Board's non-employee director compensation philosophy is that the Company's compensation arrangements for its non-employee directors should reasonably compensate the non-employee directors for their services to the Company and should further align the interests of the non-employee directors with the interests of the Company's shareholders. Consistent with that philosophy, the Board has structured the cash and equity award components of the Director Compensation Policy to provide a total compensation opportunity for the non-employee directors that the Board believes is reasonable. The Board also believes that it is reasonable, and consistent with peer company practices, to structure the Director Compensation Policy with two key compensation components - the equity grant component discussed above and the cash compensation component discussed above - as awards with a value linked to the price of the Company's common stock further align the interests of non-employee directors with the interests of the Company's shareholders; but the Board believes that it is appropriate, and consistent with peer company practices, to not structure the entire compensation opportunity to be dependent upon stock price and thus to include the cash compensation component. The Board believes that differences in compensation levels under the Director Compensation Policy for the Chairman of the Board, and for non-employee directors serving on particular Board committees or as the Chair of a Board committee, are appropriate based on the Board's assessment of the extent of additional services currently required of the non-employee directors that hold those positions and consistent with peer company practices.

FW Cook was retained as an independent compensation consultant in July 2015 to perform a comprehensive review of the Director Compensation Policy. FW Cook reviewed the Director Compensation Policy again in 2016 and 2017. Each year, FW Cook compared the Company's compensation program for its non-employee directors to the non-employee director compensation programs of a peer group of companies, and advised the Board as to the Company's compensation program for its non-employee directors generally as well as on material decisions concerning the compensation of the Company's non-employee directors. The peer group of companies used in FW Cook's comparison for these purposes each year was the same group of peer companies used by the Compensation Committee to assess the Company's executive compensation program in that year. The 2017 peer companies are identified in the "Compensation Discussion and Analysis" above. The peer companies were selected on the advice of FW Cook for the same reasons identified in the "Compensation Discussion and Analysis" above.

In February 2017, the Board amended the Director Compensation Policy to provide that, unless and until otherwise provided by the Board, future grants of equity awards by the Company to non-employee directors will be in the form of stock options. Based on data provided by FW Cook, a majority of the 2016 peer companies granted equity awards in the form of stock options to their non-employee directors. With advice from FW Cook, the Board believed that this amendment to the Director Compensation Policy was advisable in light of the current practices of a majority of the peer companies. The Board believed that stock options, which have value only if the price of a share of Company common stock appreciates after the date of grant of the award, continue to fulfill the goal of the equity grant component of the Director Compensation Policy -- to further align the interests of non-employee directors with the interests of the Company's shareholders. The February 2017 amendments to the Director Compensation Policy continue the approach that the Company will grant an equity award to each new non-employee director joining the Board as well as, on an annual basis, to each non-employee director continuing to serve on the Board. The Board has the discretion, within the applicable limits of the equity plan under which the awards are granted, to determine the specific grant date and number of shares subject to each of these awards.

On February 23, 2017, the Board approved the 2017 annual equity award grant for each of the non-employee directors then in office (other than for Dr. James Bianco and Mr. Love, each of whom was not, at the time of grant of the award, entitled to non-employee director compensation pursuant to their respective agreements with the Company). The terms of the grants were determined by the Board with the advice of FW Cook. Each such option was for 50,000 shares of the Company's common stock, has a per share exercise price equal to the closing market price of a share of the Company's common stock on the date of grant of the award, and each award is scheduled to vest on the earlier of one year after the date of grant or immediately prior to the Company's first annual meeting of shareholders in 2018 at which one or more members of the Board are to be elected (subject to acceleration in the event of a change in control

of the Company or should the director's service on the Board terminate due to the director's death or disability). Each option grant, to the extent vested when the award holder ceases to serve as a member of the Board, will continue to be exercisable for three years following the director's separation from service, subject to earlier termination at the end of the maximum ten year term of the grant and further subject to earlier termination in connection with a change in control of the Company's). The Board, with advice from FW Cook, believed that the terms of these grants were appropriate to provide a total compensation opportunity for the non-employee directors that the Board believed was reasonable. Since Mr. Love again became a non-employee director in March 2017 in connection with Dr. Craig becoming our CEO, and since Mr. Love had not received a non-employee director stock option grant in February 2017, the Board approved an option grant to Mr. Love on September 20, 2017 for 50,000 shares on the same terms as the grants made to the other non-employee directors in February 2017 described above (with the exercise price being set at the same \$4.25 level as the February 2017 grants, which was significantly higher than our stock price on the date Mr. Love's option was granted).

In September 2017, the Board amended the cash component of the Director Compensation Policy to eliminate meeting fees and provide that members of the Audit, Compensation, and Nominating and Governance Committees would receive an annual retainer in the amounts reported above. In making this change, the Board considered input from FW Cook and concluded that the amendment would help simplify the Company's director program and more closely align it with the director compensation practices of the peer group.

The Board did not set non-employee director compensation levels at any benchmark relative to any specific level or percentile against the peer company data. The Board's non-employee director compensation determinations are subjective and the result of the Board's business judgment, which is informed by the experiences of the members of the Board, and the analysis and input from executive compensation consultants it retains from time to time, as well as the Board's assessment of overall non-employee director compensation trends and trends specific to the Company's industry.

## 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 stockholder known by us to be the beneficial owner of more than 5% of the outstanding shares of our common stock as of February 20, 2018, except as otherwise noted in the footnotes to the table. The table also provides certain information as of February 20, 2018 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:

| Name and Address of Beneficial Owner                             | CTI BioPharma Corp.<br>Common Stock             |                                                      |                            | Aequus Biopharma, Inc.<br>Common Stock          |                                                      |                            |
|------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|----------------------------|-------------------------------------------------|------------------------------------------------------|----------------------------|
|                                                                  | Number of<br>Shares<br>Beneficially<br>Owned(1) | Shares<br>Subject to<br>Convertible<br>Securities(2) | Percentage<br>Ownership(1) | Number of<br>Shares<br>Beneficially<br>Owned(1) | Shares<br>Subject to<br>Convertible<br>Securities(2) | Percentage<br>Ownership(1) |
| <b>5% or More Shareholders:</b>                                  |                                                 |                                                      |                            |                                                 |                                                      |                            |
| BVF Partners L.P.(3)                                             | 15,313,023                                      | 8,383,333                                            | 26.41%                     | —                                               | —                                                    | —                          |
| OrbiMed Private Investments VI, LP(4)                            | 5,000,000                                       | —                                                    | 8.62%                      | —                                               | —                                                    | —                          |
| Growth Equity Opportunities Fund V LLC(5)                        | 3,750,000                                       | —                                                    | 6.47%                      | —                                               | —                                                    | —                          |
| <b>Directors and named executive officers of the Company:(6)</b> |                                                 |                                                      |                            |                                                 |                                                      |                            |
| Adam R. Craig, M.D., Ph.D.**                                     | 475,000                                         | 475,000                                              | *                          | —                                               | —                                                    | —                          |
| Laurent Fischer, M.D.**                                          | —                                               | —                                                    | —                          | —                                               | —                                                    | —                          |
| David H. Kirske                                                  | 67,083                                          | 67,083                                               | *                          | —                                               | —                                                    | —                          |
| Richard L. Love**                                                | 144,030                                         | 70,312                                               | *                          | —                                               | —                                                    | —                          |
| Michael A. Metzger**                                             | 70,121                                          | 50,000                                               | —                          | —                                               | —                                                    | —                          |
| David Parkinson, M.D.**                                          | —                                               | —                                                    | —                          | —                                               | —                                                    | —                          |
| Matthew D. Perry**                                               | 93,139                                          | 50,000                                               | *                          | —                                               | —                                                    | —                          |
| Bruce J. Seeley                                                  | 164,334 (7)                                     | 133,334                                              | *                          | —                                               | —                                                    | —                          |
| Jack W. Singer, M.D.                                             | 253,570                                         | 154,165                                              | *                          | 1,150,000                                       | 150,000                                              | 4.90%                      |
| Frederick W. Telling, Ph.D.**                                    | 149,186                                         | 70,312                                               | *                          | 1,050,000                                       | 150,000                                              | 4.48%                      |
| Reed V. Tuckson, M.D.**                                          | 162,644                                         | 70,220                                               | *                          | —                                               | —                                                    | —                          |
| All directors and executive officers, as a group (11 persons)    | 157,910 (8)                                     | 1,140,426                                            | 2.72%                      | 2,200,000                                       | 300,000                                              | 9.38%                      |

\* Less than 1%.

\*\* Denotes director of the Company or nominee.

(1) Beneficial ownership generally includes voting or investment power with respect to securities, and percentage ownership is calculated based on 57,982,860 shares of our common stock outstanding as of February 20, 2018 and 23,450,000 shares of Aequus' common stock outstanding as of February 20, 2018. 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 February 20, 2018 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.

Shares subject to convertible securities included in this column reflect any options, warrants and convertible (2) preferred stock held by the holder exercisable or convertible within sixty days after February 20, 2018. These shares are also included in the column titled "Number of Shares Beneficially Owned."

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Beneficial ownership is as of February 20, 2018 and is based on information contained in the Schedule 13D/A filed with the SEC on February 12, 2018 by BVF Partners L.P. The Schedule 13D/A states that BVF Partners L.P., including certain of its affiliates, beneficially owns 6,929,690 shares of our Common Stock, with shared voting and (3)dispositive power over all such shares. The address of BVF Partners L.P. is 1 Sansome Street, 30th Floor, San Francisco, California 94104. The number of shares subject to convertible securities is based on 12,575 shares of our Series O Preferred Stock held by BVF Partners L.P. and certain of its affiliates, convertible into an aggregate of 8,383,333 shares of Common Stock.

Beneficial ownership is as of February 20, 2018 and is based on information contained in the Schedule 13G filed with the SEC on June 15, 2017. The Schedule 13G states that OrbiMed Capital GP VI LLC (“GP VI”) is the sole (4)general partner of OrbiMed Private Investments VI, LP, which holds 5,000,000 shares of our Common Stock. The Schedule 13G also states that each of GP VI, OrbiMed Advisors LLC and Samuel D. Isaly has have shared voting and dispositive power over 5,000,000 shares of our Common Stock. The address of OrbiMed Private Investments VI, LP is 601 Lexington Avenue, 54th Floor, New York, NY 10022.

Beneficial ownership is as of February 20, 2018 and is based on information contained in the Schedule 13D filed with the SEC on February 20, 2018 by Growth Equity Opportunities Fund V, LLC. The Schedule 13D states that (5)Growth Equity Opportunities Fund V, LLC. including certain of its affiliates, beneficially owns 3,750,000 shares of our Common Stock, with shared voting and dispositive power over all such shares. The address of Growth Equity Opportunities Fund V, LLC is 1954 Greenspring Drive, Suite 600, Timonium, MD 21093.

The address of our current directors and executive officers listed is 3101 Western Avenue, Suite 800, Seattle, (6)Washington 98121, U.S.A.

(7) Number of shares beneficially owned includes 10,000 shares held by Mr. Seeley of unvested restricted stock.

(8) Number of shares beneficially owned includes 10,000 shares of unvested restricted stock for all directors and executive officers as a group.

## 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 and upon the vesting of restricted stock unit awards under all of our existing equity compensation plans as of December 31, 2017, with such plans being the 2017 Plan, the 2015 Plan, the 2007 Equity Incentive Plan, as amended (the “2007 Plan”), and the Company’s 2007 Employee Stock Purchase Plan, as amended (the “ESPP”).

| Plan Category                     | (a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights | (b) Weighted Average Exercise Price of Outstanding Options, Warrants, and Rights | (c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) |
|-----------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   |                                                                                                 |                                                                                  | (a)                                                                                                                                             |
| Plans Approved by Shareholders    | 5,568,484 (1)                                                                                   | \$6.54                                                                           | 207,048 (2)                                                                                                                                     |
| Plan Not Approved by Shareholders | 1,120,000 (3)                                                                                   | \$4.24                                                                           | —                                                                                                                                               |
| Totals                            | 6,688,484                                                                                       | \$6.15                                                                           | 207,048                                                                                                                                         |



(1) 5,548,363 of these shares were subject to stock options then outstanding under the 2007 Plan, the 2015 Plan or the 2017 Plan, and 20,121 of these shares were to restricted stock units outstanding under the 2007 Plan, the 2015 Plan or the 2017 Plan. The weighted-average exercise price presented in column (b) of the table above does not take restricted stock unit awards into account.

(2) Of these shares, 23,521 shares were available for issuance under the 2017 Plan, and 183,527 were available for issuance under the ESPP. No new awards may be granted under the 2007 Plan or the 2015 Plan. The shares available under the 2017 Plan may be used for any type of award authorized under the 2017 Plan including stock options, stock appreciation rights, stock awards, restricted stock, restricted stock units and other awards payable in shares of our common stock.

(3) This row reflects a stock option granted to Dr. Craig as an inducement to his joining the Company in accordance with NASDAQ Listing Rule 5635(c)(4) and not under any of the Company's stock incentive plans. This option was granted on March 20, 2017 and has a maximum term of 10 years (subject to earlier termination in connection with a termination of Dr. Craig's employment or a change in control of the Company). The option is scheduled to vest in six semi-annual installments as measured from the grant date and is subject to accelerated vesting if Dr. Craig's employment terminates in certain circumstances as provided in his employment agreement with the Company described above. The option is administered by the Compensation Committee and is otherwise generally subject to the terms and conditions applicable to stock options granted to employees under the Company's stock incentive plans.

#### Executive Officers

The following table sets forth certain information with respect to our executive officers as of March 21, 2018:

| Name                          | Age | Position                                                                                                                    |
|-------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------|
| Adam R. Craig, M.D.,<br>Ph.D. | 52  | President and Chief Executive Officer                                                                                       |
| David H. Kirske               | 63  | Executive Vice President, Chief Financial Officer                                                                           |
| Bruce J. Seeley               | 53  | Executive Vice President and Chief Operating Officer and Secretary                                                          |
| Jack W. Singer, M.D.          | 74  | Executive Vice President, Chief Scientific Officer, Interim Chief Medical Officer and Global Head of Translational Medicine |

For biographical information concerning Dr. Adam R. Craig, who is our directors as well as executive officer, please see the discussion above under Proposal 1.

Mr. Kirske assumed his role as our Executive Vice President, Chief Financial Officer in September 2017. Prior to this, he served as our Principal Financial and Accounting Officer since August 2017. Mr. Kirske leads CTI BioPharma's finance, accounting and investor relations teams. Prior to his appointment, Mr. Kirske has been an independent chief financial officer (CFO) consultant since January 2013. As a consultant, he has provided financial management services to public and emerging growth private companies primarily in the biotechnology industry, as well as in technology and manufacturing.

Mr. Kirske financial management experience includes overseeing finance, accounting, operations, and capitalization, in both debt and equity. Prior to his time as a consultant, Mr. Kirske served as Vice President and CFO of Helix BioMedix where he managed all financial and administrative activities. Previously, he was the Treasurer and Corporate Controller for F-5 Networks and Redhook Brewery where he managed both corporate and international entities, as well as being part of the management teams that led and executed each company's successful initial public offerings. Earlier in his career, he held a controllership position at Cray Computer. Mr. Kirske holds a B.A. in Business Administration from the University of Puget Sound.

Mr. Seeley assumed his role as our as Executive Vice President and Chief Operating Officer in September 2017. He joined the Company in July 2015 as Executive Vice President and Chief Commercial Officer. 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.

Dr. Singer is a founder of CTI BioPharma and currently serves as the Company's Executive Vice President, Chief Scientific Officer, Interim Chief Medical Officer and Global Head of Translational Medicine. Dr. Singer has been one of the Company's directors since its inception in September 1991. From 2004 to June 2012, Dr. Singer was the Company's Chief Medical Officer. From

July 1995 to January 2004, Dr. Singer was Executive Vice President, Research Program Chairman, and from April 1992 to July 1995, he served as Executive Vice President, Research and Development. He also serves on the board of directors of DiaKine Therapeutics Inc.

Prior to joining CTI, Dr. Singer was Professor of Medicine at the University of Washington and full Member of the Fred Hutchinson Cancer Research Center. From 1975 to 1992, he was the Chief of Medical Oncology at the Veterans Administration Medical Center in Seattle. Dr. Singer received his M.D. from State University of New York, Downstate Medical College.

#### 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. Related party transactions involving our directors and executives must be reviewed and approved in advance by our Board. 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

We have a majority ownership interest in Aequus. In May 2007, we entered into a license agreement with Aequus whereby Aequus gained rights to our Genetic Polymer™ technology. We also entered into an agreement to fund Aequus in exchange for a convertible promissory note.

In March 2017, we and Aequus entered into a License and Promissory Note Termination Agreement and a Note Cancellation Agreement, pursuant to which (1) all of the then-outstanding principal, plus all accrued and unpaid interest, approximately \$13.7 million in total, was cancelled and terminated, (2) our license agreement with Aequus was terminated, (3) all obligations to Aequus were terminated with the exception of providing additional funding of up to \$347,500 to Aequus, and (4) Aequus agreed to pay us a) 20% of milestone and similar payments, up to a maximum amount of \$20.0 million, and b) royalties, on a product-by-product and country-by country basis, of 5% of net sales of certain ACTH Products being developed by Aequus. The additional funding of \$347,500 had been provided in full as of September 30, 2017. Payments from Aequus are due the later of (1) expiration of the last to expire valid patent claim that claims the ACTH Product, or (2) ten years from the first commercial sale of the applicable ACTH Product. We have the right to terminate the License and Promissory Note Termination Agreement and require Aequus to assign all ACTH Product related assets to us if Aequus does not file an Investigational New Drug Application for an ACTH Product with the FDA by September 6, 2019.

Jack W. Singer, M.D., our Executive Vice President, Chief Scientific Officer, Interim Chief Medical Officer, and Global Head of Translational Medicine, and Frederick W. Telling, Ph.D., a member of our Board, are minority shareholders of Aequus, owning approximately 4.3% and 3.8% of the equity in Aequus as of December 31, 2017, respectively. Dr. Telling is the Chairman of Aequus' Board of Directors. Dr. Singer and Richard Love, a member of our Board, are also members of Aequus' Board of Directors.

##### BVF Partners L.P.

In September 2015, we entered into a subscription agreement with BVF pursuant to which we issued 1.0 million shares of our common stock. In addition, we completed underwritten public offerings of 55,000 shares of our Series N-2 Preferred Stock, no par value per share in December 2015 and 22,500 shares of our Series N-3 Preferred Stock, no par value per share in June 2017. BVF purchased 30,000 shares of our Series N-2 Preferred Stock and 6,750 shares of our Series N-3 Preferred Stock in such offerings. BVF converted 30,000 shares of our Series N-2 Preferred Stock

and 6,175 shares of our Series N-3 Preferred Stock into approximately 2.7 million shares and 4.1 million shares of our common stock, respectively. Primarily as a result of these transactions, BVF beneficially owned approximately 20.0% and 15.9% of our outstanding common stock as of December 31, 2017 and 2016, respectively. Matthew D. Perry, a member of our Board, is the President of BVF and portfolio manager for the underlying funds managed by the firm.

In connection with the Series N-2 Preferred Stock offering, we entered into a letter agreement with BVF, or the First Letter Agreement, pursuant to which we granted BVF a one-time right, subject to certain conditions, to nominate not more than two individuals to serve as members of our Board, subject to the Board's consent, which is not to be unreasonably withheld and which consent shall be deemed automatically given with respect to two individuals specified in such Letter Agreement. One of such

nominees (the “Independent Nominee”) must (1) qualify as an “independent” director as defined under the applicable rules and regulations of the SEC and the NASDAQ, and (2) must not be considered an “affiliate” of BVF as such term is defined by Rule 12b-2 of the Securities Exchange Act of 1934, as amended, or the Exchange Act. We have agreed, for the period hereinafter described and subject to a limited exception, to include the nominated directors in the slate of nominees for election to the Board at each annual or special meeting at which directors are to be elected, recommend that shareholders vote in favor of the election of such nominees and support such nominees for election in a manner no less favorable than how we support our own nominees. This obligation will terminate with respect to: (1) the Independent Nominee, and such Independent Nominee must tender his or her resignation to the Board, if requested, promptly upon BVF ceasing to beneficially own at least 11% of the issued and outstanding common stock or voting power of the Company (determined on an as-converted basis that gives effect to the conversion of all outstanding preferred stock), and (2) each of the Independent Nominee and the other individual nominated by BVF, and each such nominee shall tender his or her resignation to the Board promptly upon the earlier to occur of (a) BVF and its affiliates ceasing to beneficially own at least 5% of the issued and outstanding common stock or voting power of the Company (determined on an as-converted basis that gives effect to the conversion of all outstanding preferred stock), (b) BVF ceasing to beneficially own at least 50% of the shares of the common stock beneficially owned by BVF immediately after consummation of the Series N-2 Preferred Stock offering (on an as-converted basis), (c) the continuation of such nomination right would cause any violation of the applicable listing rules of NASDAQ, (d) such time as BVF informs us in writing that it wishes to terminate the foregoing nomination right, or (e) any breach of the Letter Agreement by BVF.

In connection with the offering of Series N-3 Preferred Stock, we entered into a letter agreement with BVF, or the Second Letter Agreement, and pursuant to the First Letter Agreement and the Second Letter Agreement, we agreed to, upon BVF’s election and subject to any board and committee approvals, exchange shares of common stock purchased by BVF directly from us or underlying convertible preferred stock purchased by BVF directly from us, including the shares of common stock underlying the Series N-3 Preferred Stock, into shares of a convertible non-voting preferred stock with substantially similar terms as the Series N-3 Preferred Stock, including a conversion “blocker” initially set at 9.99% of our common stock. Such right would terminate if at any time BVF’s beneficial ownership of our common stock falls below 5%.

In February 2018, in connection with the public offering of common stock, BVF purchased 6.3 million shares of our common stock. In addition, BVF exchanged 8.0 million shares of our common stock owned by BVF and 575 shares of our Series N Preferred Stock owned by BVF for 12,575 shares of our Series O Preferred Stock, pursuant to the letter agreements discussed above as well as an additional exchange agreement executed in February 2018. As a result of these transactions, BVF beneficially owned approximately 12.0% of our common stock as of February 28, 2018.

#### Employment Relationship

Corey Masten-Legge, a stepson of James A. Bianco, M.D., is employed as a corporate attorney in our legal department. In 2017, Mr. Masten-Legge earned \$300,600 in base salary and bonus, a grant of stock options for 68,750 shares of common stock with a grant-date fair value (based on the assumptions used to value equity awards in our financial reporting) of \$150,726 and \$8,100 in 401(k) matching funds.

#### 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% stockholders 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 2017 fiscal year, all Section 16(a) filing requirements applicable to our executive officers, directors and any greater than 10% beneficial owners were timely met, except that one late report on Form 4

was filed for each of Matthew Plunkett, Jack W. Singer and Bruce J. Seeley pertaining to a grant of the Company's stock options.

#### 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 Stockholders Sharing an Address

We have adopted a procedure called "householding," which the SEC has approved. Under this procedure, stockholders 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 stockholders. Upon oral or written request, we will deliver promptly a separate copy of the

proxy materials to a stockholder at a shared address to which a single copy of proxy materials was delivered. If you are a stockholder 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 stockholder 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 stockholder, 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.

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 800, 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 May 2, 2018 in order to receive them before the Annual Meeting.

By Order of the Board of Directors

Adam R. Craig  
Chief Executive Officer

Seattle, Washington  
March 30, 2018

APPENDIX A  
CTI BIOPHARMA CORP.  
2017 EQUITY INCENTIVE PLAN

1. PURPOSE OF PLAN

The purpose of this CTI BioPharma Corp. 2017 Equity Incentive Plan (this “Plan”) of CTI BioPharma Corp., a Delaware corporation (the “Corporation”), is to promote the success of the Corporation by providing an additional means through the grant of awards to attract, motivate, retain and reward selected employees and other eligible persons and to enhance the alignment of the interests of the selected participants with the interests of the Corporation’s stockholders.

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. 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. 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

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 (or sub-committees, as the case may be) 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 Section 157(c) of the Delaware General Corporation Law and any other applicable law, to one or more officers of the Corporation, its authority under this Plan. The Board or another committee (within its delegated authority) may delegate different levels of authority to different committees or persons 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 present assuming the presence of a quorum or the unanimous written consent of the members of the Administrator shall constitute action by the acting Administrator.

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, determine 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 no delayed exercisability or vesting is required, establish any applicable performance-based exercisability or

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vesting requirements, determine the circumstances in which any performance-based goals (or the applicable measure of performance) will be adjusted and the nature and impact of any such adjustment, determine the extent (if any) to which any applicable exercise and vesting requirements have been satisfied, establish the events (if any) on which exercisability or vesting may accelerate (which may include, without limitation, retirement and other specified terminations of employment or services, or other circumstances), 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);
- 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, make any and all determinations under this Plan and
- (d) any such agreements, 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;
- 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
- (f) awards) in such circumstances as the Administrator may deem appropriate (including, without limitation, in connection with a retirement or other termination of employment or services, or other circumstances) subject to any required consent under Section 8.6.5;
- 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
- (g) Administrator may deem appropriate, in each case subject to Sections 4 and 8.6 (and subject to the no repricing provision below);
- determine the date of grant of an award, which may be a designated date after but not before the date of the
- (h) Administrator's action to approve 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 approving the award);
- determine whether, and the extent to which, adjustments are required pursuant to Section 7.1 hereof and take any
- (i) other actions contemplated by Section 7.2 in connection with the occurrence of an event of the type described in Section 7;
- (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); and
- (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.

Notwithstanding the foregoing and except for an adjustment pursuant to Section 7.1 or a repricing approved by stockholders, 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 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 determination or other action taken by, or inaction of, the Corporation, any Subsidiary or the Administrator relating or pursuant to this Plan (or any award made under 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 other Administrator, 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

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to time. Neither the Board nor any other Administrator, nor any member thereof or person acting at the direction thereof, nor the Corporation 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 meet the requirements of the Internal Revenue Code of 1986, as amended (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 Securities Exchange Act of 1934, as amended, 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 any of its Subsidiaries or to third parties.

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

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 4.1 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) 5,300,000 shares of Common Stock, plus the number of any shares subject to stock options granted under the Corporation's 2015 Equity Incentive Plan, as amended (the "2015 Plan"), or the Corporation's 2007 Equity Incentive Plan, as amended (the "2007 Plan") and
- (2) outstanding on the date of stockholder approval of this Plan (the "Stockholder Approval Date") which expire, or for any reason are cancelled or terminated, after the Stockholder Approval Date without being exercised, plus; the number of any shares subject to restricted stock or restricted stock unit awards granted under the 2015 Plan or
- (3) the 2007 Plan that are outstanding and unvested on the Stockholder 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 9,202,207 shares (which is the sum of the 5,300,000 shares set forth above, plus the aggregate number of shares subject to stock options and unvested restricted stock and restricted stock unit awards previously granted and outstanding under the 2015 Plan and 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 5,300,000 shares.

Awards that are granted under this Plan during any one calendar year to any person who, on the grant date of the award, is a non-employee director are subject to the limits of this Section 4.2(b). The maximum number of shares of Common Stock subject to those awards that are granted under this Plan during any one calendar year to an individual who, on the grant date of the award, is a non-employee director is the number of shares that produce a grant date fair value for the award that, when combined with the grant date fair value of any other awards granted (b) under this Plan during that same calendar year to that individual in his or her capacity as a non-employee director, is \$375,000; provided that this limit is \$475,000 as to a non-employee director who is serving as the Chairman of the Board. For purposes of this Section 4.2(b), a "non-employee director" is an individual who, on the grant date of the award, is a member of the Board who is not then an officer or employee of the Corporation or one of its Subsidiaries. For purposes of this Section 4.2(b), "grant date fair value" means the value of the award as of the date of grant of the award and

as determined using the equity award valuation principles applied in the Corporation's financial reporting. The limits of this Section 4.2(b) do not apply to, and shall be determined without taking into account, any award granted to an individual who, on the grant date of the award, is an officer or employee of the Corporation or one of its Subsidiaries. The limits of this Section 4.2(b) apply on an individual basis and not on an aggregate basis to all non-employee directors as a group.

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

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. No 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

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:

5.1.1 Stock 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 evidencing the grant of 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 shall be not less than 100% of the fair market value of a share of Common Stock on the date of grant of the 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 5.4.

5.1.2 Additional 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

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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). 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.

5.1.3 **Stock 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.

5.1.4 **Other Awards; Dividend Equivalent Rights.** The other types of awards that may be granted under this Plan include: (a) stock bonuses, restricted stock, performance stock, stock units, restricted stock units, deferred shares, 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; or (b) cash awards. The types of cash awards that may be granted under this Plan include the opportunity to receive a payment for the achievement of one or more goals established by the Administrator, on such terms as the Administrator may provide, as well as discretionary 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 as to a stock option or SAR granted under this Plan. In addition, any dividends and/or dividend equivalents as to the portion of an award that is subject to unsatisfied 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 vesting requirements are not satisfied.

5.1.5 **Certain Performance-Based Awards.** Any Qualified Performance-Based Award or Qualifying Option or SAR (as such terms were defined in Section 5.2 of the prior version of this Plan) granted under this Plan prior to November 2, 2017 shall continue to be governed by the terms of this Plan in effect at the time of grant of such award.

5.2 **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.

**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.

5.3 **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.**

5.4 **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:

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services rendered by the recipient of such award;  
 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;  
 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. Shares of Common Stock used to satisfy the exercise price of an option shall be valued at their fair market value. 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.

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 NASDAQ 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).

## 5.6 Transfer Restrictions.

5.6.1 Limitations on Exercise and Transfer. Unless otherwise expressly provided in (or pursuant to) this Section 5.6 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.

5.6.2 Exceptions. 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).

5.6.3 Further Exceptions to Limits on Transfer. The exercise and transfer restrictions in Section 5.6.1 shall not apply to:

- (a) transfers to the Corporation (for example, in connection with the expiration or termination of the award), the designation of a beneficiary to receive benefits in the event of the participant's death or, if the participant has
- (b) 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 the authorization by the Administrator of "cashless exercise" procedures with third parties who provide financing for
- (e) the purpose of (or who otherwise facilitate) the exercise of awards consistent with applicable laws and any limitations imposed by the Administrator.

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 extent 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 stockholder approval; (c) take any action, before or after an award is made, that it deems advisable to obtain

5.7 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

General. The Administrator shall establish the effect (if any) of a termination of employment or service 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

6.1 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.

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 required 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 any applicable maximum term of the award.

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 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

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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

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 7.1 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, and/or (4) the securities, cash or other property deliverable upon exercise or payment 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.

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.

Corporate Transactions - Assumption and Termination of Awards. Upon any event in which the Corporation does not survive, or does not survive as a public company in respect of its Common Stock (including, without limitation, a dissolution, merger, combination, consolidation, conversion, exchange of securities, or other reorganization, or a sale of all or substantially all of the business, stock or assets of the Corporation, in any case in connection with 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 awards or the cash, securities or property deliverable to the holder of any or all outstanding 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 in connection with which the Administrator has made provision for the award to be terminated (and the Administrator has not made a provision 7.2 for the substitution, assumption, exchange or other continuation or settlement of the award): (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 (with any performance goals applicable to the award in each case being deemed met, unless otherwise provided in the award agreement, at the "target" performance level); and (2) each award (including any award or portion thereof that, by its terms, does not accelerate and vest in the circumstances) 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.

For purposes of this Section 7.2, an award shall be deemed to have been “assumed” if (without limiting other circumstances in which an award is assumed) the award continues after an event referred to above in this Section 7.2, and/or is assumed and continued by the surviving entity following such event (including, without limitation, an entity that, as a result of such event, owns the Corporation or all or substantially all of the Corporation’s assets directly or through one or more subsidiaries (a “Parent”)), and confers the right to purchase or receive, as applicable and subject to vesting and the other terms and conditions of the award, for each share of Common Stock subject to

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the award immediately prior to the event, the consideration (whether cash, shares, or other securities or property) received in the event by the stockholders of the Corporation for each share of Common Stock sold or exchanged in such event (or the consideration received by a majority of the stockholders participating in such event if the stockholders were offered a choice of consideration); provided, however, that if the consideration offered for a share of Common Stock in the event is not solely the ordinary common stock of a successor corporation or a Parent, the Administrator may provide for the consideration to be received upon exercise or payment of the award, for each share subject to the award, to be solely ordinary common stock of the successor corporation or a Parent equal in fair market value to the per share consideration received by the stockholders participating in the event.

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 the case of an option, SAR or similar right as to which the per share amount payable upon or in respect of such event is less than or equal to the exercise or base price of the award, the Administrator may terminate such award in connection with an event referred to in this Section 7.2 without any payment in respect of such 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.

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 7.3 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

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,

8.1 regulatory or governmental authority 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 or one of its Subsidiaries, provide such assurances and representations to the Corporation or one of its Subsidiaries as the Administrator may deem necessary or desirable to assure compliance with all applicable legal and accounting requirements.

No Rights to Award. No person shall have any claim or rights to be granted an award (or additional awards, as the 8.2 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.

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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.

8.4 Tax Withholding. Upon any exercise, vesting, or payment of any award, or upon the disposition of shares of Common Stock acquired pursuant to the exercise of an ISO prior to satisfaction of the holding period requirements of Section 422 of the Code, or upon any other tax withholding event with respect to any award, arrangements satisfactory to the Corporation shall be made to provide for any taxes the Corporation or any of its Subsidiaries may be required or permitted to withhold with respect to such award event or payment. Such arrangements may include (but are not limited to) any one of (or a combination of) the following:

(a) The Corporation or one of its Subsidiaries shall have the right to require the participant (or the participant's personal representative or beneficiary, as the case may be) to pay or provide for payment of the amount of any taxes which the Corporation or one of its Subsidiaries may be required or permitted to withhold with respect to such award event or payment.

(b) The Corporation or one of its Subsidiaries shall have the right to deduct from any amount otherwise payable in cash (whether related to the award or otherwise) to the participant (or the participant's personal representative or beneficiary, as the case may be) the amount of any taxes which the Corporation or one of its Subsidiaries may be required or permitted to withhold with respect to such award event or payment.

In any case where a tax is required to be withheld in connection with the delivery of shares of Common Stock under this Plan, the Administrator may in its sole discretion (subject to Section 8.1) require or grant (either at the time of the award or thereafter) to the participant the right to elect, pursuant to such rules and subject to such conditions as the Administrator may establish, that the Corporation reduce the number of shares to be delivered by (or otherwise reacquire) the appropriate number of shares, valued in a consistent manner at their fair market value or at the sales price in accordance with authorized procedures for cashless exercises, necessary to satisfy any applicable withholding obligation on exercise, vesting or payment.

8.6 Effective Date, Termination and Suspension, Amendments.

8.6.1 Effective Date. This Plan is effective as of March 13, 2017, the date of its approval by the Board (the "Effective Date"). This Plan shall be submitted for and subject to stockholder 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.

8.6.2 Board 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.

8.6.3 Stockholder 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 stockholder approval.

8.6.4 Amendments 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 no-repricing provisions in Section 3.2.

8.6.5 Limitations 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.

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 stockholder for which a record date is prior to such date of delivery.

8.8 Governing Law; Construction; Severability.

8.8.1 Choice 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 Delaware, notwithstanding any Delaware or other conflict of law provision to the contrary.

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

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 the awards 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 or assumed by an acquired company (or previously granted or assumed 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.

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.

No 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 stockholders, boards of directors or committees thereof (or any subcommittees), 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, (f) any other award, grant, or payment of incentives or other compensation under any other plan or authority (or any other action with respect to any benefit, incentive or compensation), or (g) 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. Awards need not be structured so as to be deductible for tax purposes.

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.

Clawback Policy. The awards granted under this Plan are subject to the terms of the Corporation's recoupment, clawback or similar policy 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).

VOTE BY INTERNET - [www.proxyvote.com](http://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 meeting date. Have your proxy card in hand when you access the website and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

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

CTI BIOPHARMA CORP.  
3101 WESTERN  
AVENUE, SUITE 800  
SEATTLE, WA 98121

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 meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

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

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

E43682-P04063 KEEP THIS PORTION FOR YOUR RECORDS

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DETACH AND RETURN THIS PORTION ONLY  
THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

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CTI  
BIOPHARMA CORP.  
To withhold authority to  
vote for any individual  
nominee(s), mark "For  
All Except" and write the  
Except number(s) of the  
nominee(s) on the line  
below.

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

1.  
To  
elect  
directors  
to  
the  
Company's  
Board  
of  
Directors  
to  
serve  
one-year  
terms.  
Nominees:

1)  
Adam  
R. 5) Matthew D. Perry  
Craig,  
M.D.,  
Ph.D.

2)  
Laurence Frederick W. Telling,  
Ph.D.,  
M.D.

3)  
7) Reed V. Tuckson,  
M.D., F.A.C.P  
Metzger

4)  
David

R.  
Parkinson,  
M.D.

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

For Against Abstain

2. To approve an amendment to the Company's Certificate of Incorporation to increase the total number of authorized shares from 81,533,333 to 101,533,333 and to increase the total number of authorized shares of common stock from 81,500,000 to 101,500,000;
3. To approve the Company's Amended and Restated 2017 Equity Incentive Plan;
4. To ratify the selection of Marcum LLP as the Company's independent auditor for the year ending December 31, 2018;
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.

NOTE: In their discretion, the proxies are authorized to vote upon such other business as may properly come before the Annual Meeting or any 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 Date  
[PLEASE  
SIGN  
WITHIN

Signature Date  
(Joint  
Owners)

BOX]

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:  
The Notice, Proxy Statement and 2017 Annual Report are available at [www.proxyvote.com](http://www.proxyvote.com).

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E43683-P04063

CTI BIOPHARMA CORP.

Annual Meeting of Stockholders

May 16, 2018 10:00 AM Pacific Time

The proxy is solicited by the Board of Directors

The undersigned stockholder(s), hereby revoking any proxy previously given, hereby appoint(s) Adam R. Craig, M.D., Ph.D. and Laurent Fischer, M.D., or either of them, as proxies, each with full power of substitution, to represent and vote for, and on behalf of, the stockholder(s) the number of shares of common stock of CTI BioPharma Corp. that the stockholder(s) would be entitled to vote if personally present at the Annual Meeting of Stockholders to be held on May 16, 2018, or at any adjournment or postponement thereof.

This proxy, when properly executed and returned, will be voted in the manner directed herein by the stockholder(s). IF NO DIRECTION IS MADE, THIS PROXY WILL BE VOTED "FOR ALL" NOMINEES LISTED IN PROPOSAL 1, AND "FOR" PROPOSALS 2, 3, 4, 5, AND 6. 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 postponements or adjournments thereof.

Address Changes/Comments: \_\_\_\_\_

\_\_\_\_\_

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