

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:**

<input checked="" type="checkbox"/>	Preliminary Proxy Statement
<input type="checkbox"/>	<b>Confidential, for Use of the Commission Only (as permitted by Rule 14A-6(e)(2))</b>
<input type="checkbox"/>	Definitive Proxy Statement
<input type="checkbox"/>	Definitive Additional Materials
<input type="checkbox"/>	Soliciting Material under §240.14a-12



**VERTEX PHARMACEUTICALS INCORPORATED**

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

**Payment of Filing Fee (Check the appropriate box):**

<input checked="" type="checkbox"/>	<b>No fee required.</b>
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## Dear Shareholders:

Last year was an important year for Vertex, and we are better positioned today than ever before. Based on our recent progress, we now believe the question is not if we will achieve our ultimate goal of curing CF, but when - and how quickly we can replicate this model in other serious, life-threatening diseases. With our talented team, productive research engine and strong financial position, we expect our strategy of delivering transformative medicines will generate sustained, long-term value for both patients and our shareholders.

In 2016, we obtained important long-term data for both of our marketed medicines, KALYDECO and ORKAMBI, confirming that our approach to CFTR modulation fundamentally alters the course of CF. We increased the number of people who are eligible for these medicines, including children ages 6 to 11 in the U.S. who are now eligible for ORKAMBI. In 2016, we also advanced several clinical trials evaluating tezacaftor in combination with ivacaftor. We recently reported positive data from these pivotal trials positioning us to seek approval of this dual-combination regimen in both the United States and Europe in the second half of 2017. Finally, we advanced four next-generation correctors in the clinic last year, and we anticipate Phase 1 or Phase 2 data on three of these triple-combination regimens in CF patients later this year. Taken together, these steps have significantly advanced our progress down the path of helping all people with CF and have created significant shareholder value.

Earlier this year, we out-licensed our first-in-class oncology programs to Merck KGaA, Darmstadt, Germany. In addition to getting these potential medicines to patients as quickly as possible, this agreement further demonstrates our refocused strategy to pursue transformative medicines in serious diseases that are similar to CF. Toward this end, we have established research programs in specialty disease areas where we believe we have a strong understanding of the underlying human biology - diseases such as adrenoleukodystrophy, alpha-1 antitrypsin disease, polycystic kidney disease and sickle cell disease.

In 2016, we began generating significant sustainable positive cash flows for the first time in our 27-year history. We increased CF net product revenues to nearly \$1.7 billion, a 70 percent increase over 2015. As a result of this commercial performance and our expense management, we ended the year with more than \$1.4 billion of cash, cash equivalents and marketable securities. We expect to continue to increase our financial strength moving forward.

Our remarkable progress over the last several years is the result of the hard work and dedication of our employees, the bravery of patients and their families and the commitment of the CF care teams around the world. It is also the result of a clear vision and a focused strategy that we established five years ago. During this time, I have been amazed by the evolution of this company and as we enter 2017 can say with confidence that our business has never been stronger. We thank you for continuing to support us on this important journey.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey M. Leiden".

**Jeffrey M. Leiden, M.D., Ph.D.**  
*Chairman, Chief Executive Officer and President*



# Notice of Annual Meeting of Shareholders

**Thursday, June 8, 2017**

**9:30 a.m.**

50 Northern Avenue Boston, Massachusetts 02210

**Dear Shareholders:**

**You are invited to attend Vertex Pharmaceuticals Incorporated's 2017 Annual Meeting of Shareholders. At the meeting, shareholders will vote:**

- to elect the three director nominees that are set forth in the attached proxy statement to the class of directors whose term will expire in 2020;
- to approve amendments to our Restated Articles of Organization and By-laws that provide for the declassification of our board of directors;
- to approve an amendment and restatement of our 2013 Stock and Option Plan, that, among other things, increases the number of shares authorized for issuance under this plan by 6.75 million shares;
- to ratify the selection of Ernst & Young LLP as our independent registered public accounting firm for 2017;
- to approve our named executive officers' compensation in an advisory vote;
- to recommend, by a non-binding advisory vote, the frequency with which we should request advisory votes on our executive compensation program in the future; and
- on two proposals submitted by our shareholders, if properly presented at the meeting.

Shareholders also will transact any other business that may properly come before the annual meeting or any adjournment or postponement of the annual meeting.

**RECORD DATE:**

You can vote if you were a shareholder of record on April 12, 2017.

*Your vote matters. Whether or not you plan to attend the annual meeting, please ensure that your shares are represented by voting, signing, dating and returning your proxy in the enclosed envelope, which requires no postage if mailed in the United States.*

**Dated: April \_\_, 2017**

By Order of the Board of Directors

A handwritten signature in black ink, appearing to read "Michael J. LaCascia".

**Michael J. LaCascia**  
Secretary

**IMPORTANT NOTICE REGARDING AVAILABILITY OF PROXY MATERIALS.** This proxy statement and the enclosed proxy card are first being mailed or furnished to our shareholders on or about May \_\_, 2017. This proxy statement and our Annual Report on Form 10-K for the year ended December 31, 2016 are available to holders of record of our common stock at [www.envisionreports.com/vrtx](http://www.envisionreports.com/vrtx) and to beneficial holders of our common stock at [www.edocumentview.com/vrtx](http://www.edocumentview.com/vrtx).



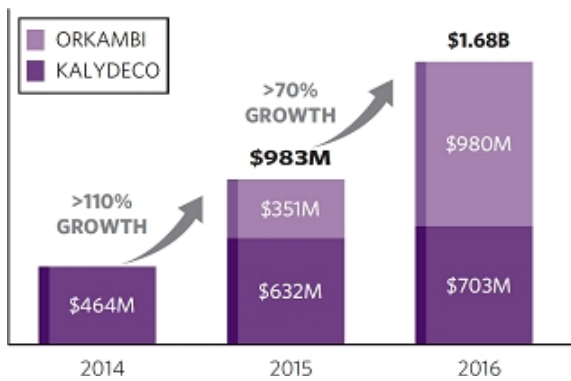
# SUMMARY INFORMATION

To assist you in reviewing this year's proposals, we call your attention to the following proxy summary. This is only a summary; please review this proxy statement and our Annual Report on Form 10-K for the year ended December 31, 2016, or 2016 Annual Report, in full.

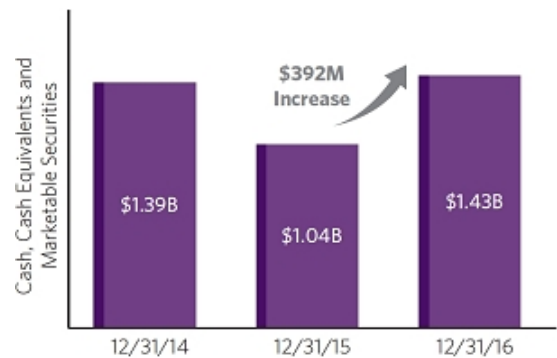
## PROXY SUMMARY

Over the last several years, we have met or exceeded most of our goals, increasing our revenues, building on our leadership position in the treatment of cystic fibrosis, or CF, bolstering our research capabilities and executing on business development transactions that support our business strategy. We are well positioned for future growth with a strong financial profile, pipeline and research engine as we seek to develop additional transformative medicines for people with serious diseases. We have two medicines, KALYDECO and ORKAMBI, that together are approved to treat approximately 29,000 patients with CF, or approximately 40% of the CF population worldwide. Sales of these medicines resulted in \$1.68 billion in net product revenues in 2016, an increase of more than 70% as compared to 2015. KALYDECO and ORKAMBI are the first, and only, medicines that treat the underlying cause of CF. We also have a strong CF pipeline, with multiple drug candidates and modalities including promising triple-combination regimens, that may allow us to help all patients with this rare and life-shortening disease.

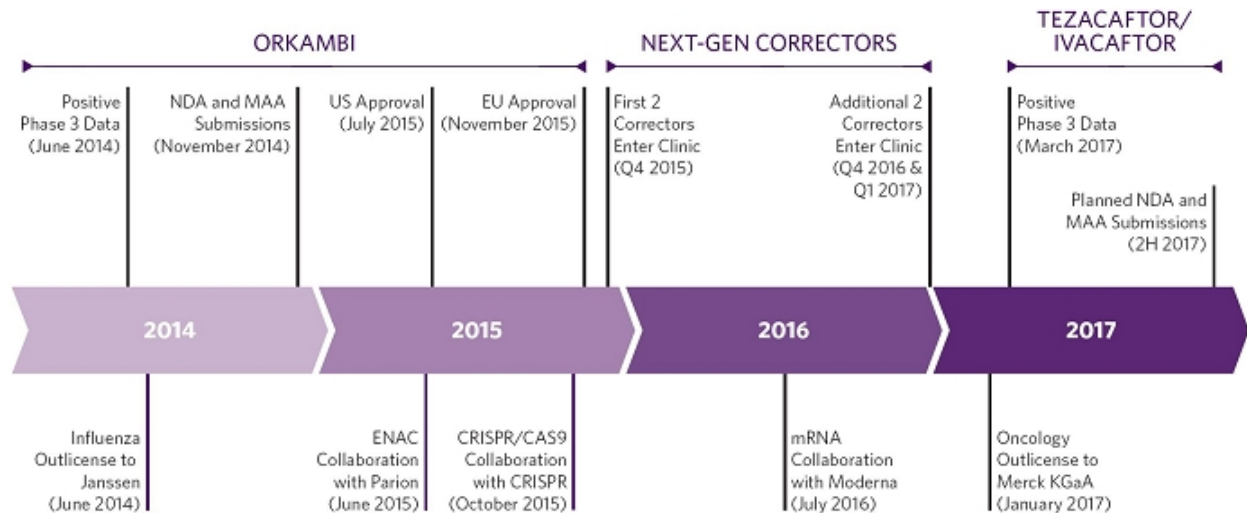
**INCREASING CF NET PRODUCT REVENUES**



**INCREASING FINANCIAL STRENGTH AND GENERATING SIGNIFICANT POSITIVE CASH FLOWS**



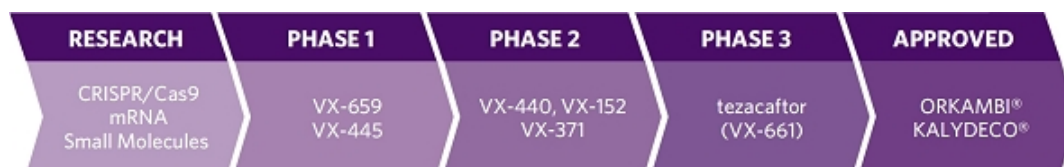
**CLINICAL MILESTONES AND STRATEGIC EXECUTION**



## Advanced our CF Pipeline

Our pipeline positions us to evaluate multiple treatment regimens with the goal of developing highly-effective treatments for patients with CF. In 2016, we:

- Advanced several Phase 3 clinical trials evaluating tezacaftor in combination with ivacaftor. In the first quarter of 2017, we reported positive data from these pivotal trials positioning us to seek approval for this dual-combination regimen in both the United States and Europe in the second half of 2017 and creating significant shareholder value.
- Initiated Phase 2 development of VX-152 and VX-440, next-generation correctors, which we are developing in triple-combination regimens that include ivacaftor and tezacaftor for 80%-90% of all patients with CF.
- Initiated clinical development of VX-659 and VX-445, two additional next-generation correctors that are being developed in triple-combination regimens.
- Expanded U.S. label for ORKAMBI to include patients 6-11 years of age who are homozygous for the F508del mutation in their CFTR gene.



## Improved Research Capabilities and Strategic Execution

- Augmented our strength in the identification of small molecule drugs by focusing research on validated targets addressing the underlying cause of disease and utilizing lab assays designed to predict clinical efficacy.
- Incorporated innovative therapeutic approaches including advancing our collaboration with CRISPR Therapeutics AG in gene editing and establishing a collaboration with Moderna Therapeutics, Inc. for mRNA therapies.
- Successfully outlicensed our oncology programs for \$230 million upfront and potential future royalties to Merck KGaA, Darmstadt, Germany in a transaction that allows us to focus our development resources, while providing for the continued development of these promising programs.

## Compensation and Shareholder Engagement

Over the last several years, we have matured from a development-stage company to a commercial-stage, global biotechnology company with a strong financial profile and a clear path to sustainable revenues and earnings growth. In early 2016, consistent with market practices for companies at our stage of development, we made significant changes to our equity compensation program and transitioned from a share-based approach to a value-based approach for our long-term equity program. As a result, 2016 is the first year in which our executive compensation reflects our current compensation program.

Under the value-based program, our CEO's pay as reported in the Summary Compensation Table decreased by 38% in 2016 as compared to 2015, and our other named executive officers' pay decreased by similar amounts in 2016 as compared to 2015. Most of these decreases were the result of the lower value of equity grants. During 2016, we also extended our CEO's employment term to ensure leadership stability during a critical period for our company, but did not increase his compensation levels.

The new equity compensation methodology reflects the evolution of our business and financial profile and feedback we received from our shareholders. While we continually engage in dialogue with our shareholders, we increased our level of engagement in response to the decline in support for our advisory say-on-pay proposal at our 2015 annual meeting of shareholders. As a result of the modifications we made to our program and our active dialogue with our shareholders, support for our executive compensation program increased significantly in 2016 to 74% from the 45% support we received in 2015. Despite the improvement, we have maintained a high level of engagement with our shareholders regarding executive compensation, having held discussions regarding executive compensation with shareholders representing approximately 75% of our outstanding stock during 2016. We plan on continuing our high level of shareholder engagement.

## Implementation of New Value-Based Equity Compensation Program With Greater Emphasis on Performance Vesting

In 2016, we adopted a new approach for granting equity and equity-based compensation to our executives, including our named executive officers, which is now reflected in our Summary Compensation Table for the first time.

Our program awards equity compensation based on value, rather than a targeted number of shares, as follows:

- Annual awards are sized based upon a target grant-date value, which are determined based upon a holistic analysis of market data, business needs and other considerations that the management development and compensation committee, or MDCC, and the board of directors deem relevant.

- The targeted values have resulted in grants with significantly fewer shares on an annual basis than our prior, share-based approach.
- The awards themselves are a mix of performance restricted stock units (35%), or PSUs, options (30%) and time-based restricted stock units (35%). 2016 marked the first year in which performance vesting equity was introduced into our annual compensation program.

Under the value-based program, our CEO was granted equity with a grant-date fair value of \$13.9 million in 2016, as compared to a grant date fair-value of \$23.3 million in 2015 under the prior share-based approach. Equity awards made to our other named executive officers under our annual program generally also decreased significantly.

## Key Compensation Decision for 2016

Our board of directors and MDCC reviewed our compensation programs and made the following key decisions:

- Minor adjustments to base salaries, other than our CEO's, primarily to align with median industry levels for our peers and to reflect increases in responsibilities.
- As a result of our accomplishments and their individual performance in 2016, our board approved annual cash bonuses at above target levels for 2016, but at significantly lower levels than those granted in 2015.
- Integration into our annual program of equity that vests solely upon achievement of rigorous performance goals.
- In early 2016, the MDCC established financial and non-financial metrics for the PSUs, with payout earned based on achievement of these metrics. 50% of the PSUs were tied to CF net product revenues in 2016, while the remaining 50% are tied to specific clinical and research milestones over a three-year period.
  - In February 2017, the MDCC certified our CF net product revenue at below the target established at the beginning of 2016, resulting in 66.5% of the target shares being earned.
  - The MDCC intends to continue to establish rigorous performance metrics tied to critical financial and non-financial goals.

## Shareholder Feedback and Implementation in 2016

The following chart summarizes what we heard from shareholders prior to the revisions to our executive compensation program which were implemented in 2016 and how we responded to these concerns in early 2016.

Concerns We Heard	What We Did
Magnitude of awards resulting from our share-based equity program	Changed to a value-based equity program, reduced grant date fair-value of our CEO's equity awards by 41% in 2016
Exclusive use of time-based equity	Implemented performance-contingent restricted stock unit awards, significantly reducing our reliance on time-based stock option awards
Rigor of performance vesting terms	Implemented balanced financial and non-financial metrics with a substantial risk of forfeiture for performance-contingent restricted stock unit awards
Dilution created by compensation program	Changed to value-based program which reduced dilution; for example, the number of shares at target for our CEO decreased by approximately 44% in 2016

The discussion and analysis of our executive compensation begins on page 38 of this proxy statement.

## Corporate Governance and Board Declassification

Throughout 2016, we continued discussions with a number of our shareholders regarding, among other matters, our corporate governance practices. In February 2017, our board of directors approved, subject to shareholder approval, amendments to our charter and by-laws that will result in the declassification of our board. These proposed amendments to our charter and bylaws that will be voted on at the 2017 annual shareholders meeting are in response to the results of the shareholder proposal at our 2016 annual meeting and discussions with certain shareholders prior to this year's annual meeting.

## Voting Matters

Proposal	Board of Directors Recommendation
Item 1: Election of Directors for Three Year Term Expiring in 2020	<b>FOR all Nominees</b>
Item 2: Approval of Amendments to Charter and By-laws	<b>FOR</b>
Item 3: Approval of Amendment and Restatement of 2013 Stock and Option Plan	<b>FOR</b>
Item 4: Ratify Selection of Independent Auditor for 2017	<b>FOR</b>
Item 5: Approve, on an Advisory Basis, Our Named Executive Officer Compensation	<b>FOR</b>
Item 6: Recommend, on an Advisory Basis, the Frequency of Future Advisory Votes on Our Executive Compensation	<b>ANNUALLY</b>
Item 7: Shareholder Proposal Regarding Supermajority Provisions	<b>AGAINST</b>
Item 8: Shareholder Proposal Regarding Lobbying Report	<b>AGAINST</b>

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## PROXY STATEMENT

This proxy statement, with the enclosed proxy card, is being furnished to shareholders of Vertex Pharmaceuticals Incorporated in connection with the solicitation by our board of directors of proxies to be voted at our 2017 annual meeting of shareholders and at any postponements or adjournments thereof. The annual meeting will be held on Thursday, June 8, 2017, at 9:30 a.m. at our headquarters, which are located at 50 Northern Avenue, Boston, Massachusetts.

This proxy statement and the enclosed proxy card are first being mailed or otherwise furnished to our shareholders on or about May \_\_, 2017. Our 2016 Annual Report on Form 10-K and other materials regarding our company are being mailed to the shareholders with this proxy statement, but are not part of the proxy statement.

# FREQUENTLY ASKED QUESTIONS REGARDING THE ANNUAL MEETING

## What is the Purpose of the Annual Meeting?

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At the annual meeting, shareholders will act upon the matters outlined in the Notice of Annual Meeting of Shareholders. These include:

- The election of directors;
- The approval of amendments to our charter and by-laws to provide for the declassification of our board of directors over time;
- The approval of the amendment and restatement of our 2013 Stock and Option Plan to, among other things, increase the number of shares available under the plan by 6.75 million shares;
- The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm;
- The approval, on an advisory basis, of the compensation program for our named executive officers;
- A vote to recommend, by a non-binding advisory vote, the frequency with which we should request advisory votes on our executive compensation program in the future;
- A shareholder proposal requesting that we take steps necessary to eliminate supermajority provisions from our charter and by-laws; and
- A shareholder proposal requesting that we prepare a report on our policies and activities with respect to lobbying.

Management, chairs of each committee of our board and representatives of Ernst & Young LLP are expected to attend the annual meeting and be available to respond to questions from shareholders.

## What is a Proxy?

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It is your legal designation of another person to vote the stock you own in the manner you direct. That other person is called a proxy. If you designate someone as your proxy in a written document, that document also is called a proxy or a proxy card. The board of directors has designated Jeffrey M. Leiden, Ian F. Smith, Michael Parini and Michael J. LaCascia to serve as proxies at the annual meeting.

## What is a Proxy Statement?

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It is a document that provides certain information about a company and matters to be voted upon at a meeting of shareholders. The rules of the SEC and other applicable laws require us to give you, as a shareholder, the information in this proxy statement and certain other information when we are soliciting your vote.

## What is the Difference between a Shareholder of Record and a Shareholder Who Holds Stock in Street Name?

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**Shareholders of Record.** If your shares are registered in your name with our transfer agent, Computershare, you are a shareholder of record with respect to those shares, and these proxy materials were sent directly to you by Computershare.

**Street Name Holders.** If you hold your shares in an account at a bank or broker, then you are the beneficial owner of shares held in "street name." The proxy materials were forwarded to you by your bank or broker, who is considered the shareholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your bank or broker how to vote the shares held in your account.

## How Many Shares Must be Represented in Order to Hold the Annual Meeting?

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In order for us to conduct the annual meeting, holders of a majority of the shares entitled to vote as of the close of business on the record date must be present in person or by proxy. This constitutes a quorum. If you are a shareholder of record, your shares are counted as present if you properly return a proxy card or voting instruction form by mail or if you attend the annual meeting and vote in person. If you are the beneficial owner of shares held in "street name," you must follow the instructions of your bank or broker in order to direct them how to vote the shares held in your account. Abstentions and broker non-votes will be counted as present for purposes of establishing a quorum. If a quorum is not present, we will adjourn the annual meeting until a quorum is obtained.

## How Can I Vote at the Annual Meeting if I Own Shares in Street Name?

---

If you are a street name holder, you may not vote your shares at the annual meeting unless you obtain a legal proxy from your bank or broker. A legal proxy is a bank's or broker's authorization for you to vote the shares it holds in its name on your behalf.

## What is the Record Date and What Does it Mean?

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The record date for the annual meeting is April 12, 2017 and was established by our board of directors. On the record date, there were 249,043,095 shares of our common stock entitled to vote. Owners of record of common stock at the close of business on the record date are entitled to:

- receive notice of the annual meeting; and
- vote at the annual meeting and any adjournment or postponement of the annual meeting.

## If I submit a Proxy, May I Later Revoke it and/or Change my Vote?

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Shareholders may revoke a proxy and/or change their vote prior to the completion of voting at the annual meeting by:

- signing another proxy card with a later date and delivering it to our Secretary, Michael J. LaCascia, 50 Northern Avenue, Boston, Massachusetts 02210, before the annual meeting; or
- voting at the annual meeting, if you are a shareholder of record or hold your shares in street name and have obtained a legal proxy from your bank or broker.

## What if I do not Specify a Choice for a Matter when Returning a Proxy?

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Shareholders should specify their choice for each matter following the directions described on their proxy card. If no specific instructions are given, proxies that are signed and returned will be voted:

- FOR the election of all director nominees;
- FOR the amendments to our charter and by-laws providing for the declassification of our board of directors over time;
- FOR the amendment and restatement of our 2013 Stock and Option plan to, among other things, increase the number of shares available for issuance by 6.75 million shares;
- FOR ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2017;
- FOR our compensation program for our named executive officers;
- To recommend on an advisory basis, ANNUAL advisory votes on our compensation program for our named executive officers;
- AGAINST the shareholder proposal requesting that we take steps necessary to eliminate supermajority provisions from our charter and by-laws; and
- AGAINST the shareholder proposal requesting that we prepare a report on our policies and activities with respect to lobbying.

## Are My Shares Voted if I do not Provide a Proxy?

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If you are a shareholder of record and do not provide a proxy, you must attend the annual meeting in order to vote. If you hold shares through an account with a bank or broker, your shares may be voted by the bank or broker if you do not provide voting instructions. Banks and brokers have the authority under applicable rules to vote shares on routine matters for which their customers do not provide voting instructions. The ratification of Ernst & Young LLP as our independent registered public accounting firm is considered a routine matter. Each of the other proposals, including the election of directors, the approval of the amendments to our charter and by-laws, the approval of the amendment and restatement of our 2013 Stock and Option Plan, the advisory vote with respect to our executive compensation program and the two shareholder proposals are not considered routine, and banks and brokers cannot vote shares without instruction on those matters. Shares that banks and brokers are not authorized to vote on those matters are counted as "broker non-votes" and will have no effect on the results of those votes.

## What Vote is Required to Approve Each Proposal and How are Votes Counted?

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### Item 1: Election of Directors

The nominees for director in an uncontested election who receive a majority of the votes from shareholders present in person or represented by proxy at the annual meeting (more votes cast "FOR" such director than "WITHHELD" from such director) will be elected. Abstentions are not counted for purposes of electing directors. You may vote either FOR or WITHHOLD your vote from any one or more of the nominees.

### Item 2: Approval of the Amendments to our Restated Articles of Organization and By-laws

To be approved, this proposal must receive an affirmative vote from shareholders present in person or represented by proxy at the annual meeting representing at least 80% of our outstanding shares of common stock as of the record date. Abstentions and broker non-votes will have the same effect on the result of this vote as votes against the proposal.

### Item 3: Approval of the Amendment and Restatement of our 2013 Stock and Option Plan

To be approved, this proposal must receive an affirmative vote from shareholders present in person or represented by proxy at the annual meeting representing a majority of the votes cast on the proposal. Abstentions will have no effect on the results of this vote.

### Item 4: Ratification of the Appointment of Independent Registered Public Accounting Firm

To be approved, this proposal must receive an affirmative vote from shareholders present in person or represented by proxy at the annual meeting representing a majority of the votes cast on the proposal. Abstentions will have no effect on the results of this vote.

### Item 5: Advisory Vote to Approve Named Executive Officer Compensation

To be approved, this proposal must receive an affirmative vote from shareholders present in person or represented by proxy at the annual meeting representing a majority of the votes cast on the proposal. Abstentions will have no effect on the results of this vote.

### Item 6: Recommendation on the Frequency of Future Advisory Votes on Our Executive Compensation Program

The recommendation that receives the most votes, also known as a "plurality" of the votes, will be adopted. Abstentions will have no effect on the results of this vote.

### Item 7: Shareholder Proposal Requesting that we Take Steps Necessary to Eliminate Supermajority Provisions from our Restated Articles of Organization and Amended and Restated By-Laws

To be approved, this proposal must receive an affirmative vote from shareholders present in person or represented by proxy at the annual meeting representing a majority of the votes cast on the proposal. Abstentions will have no effect on the results of this vote.

### Item 8: Shareholder Proposal Requesting that we Prepare a Report on our Policies and Activities With Respect to Lobbying

To be approved, this proposal must receive an affirmative vote from shareholders present in person or represented by proxy at the annual meeting representing a majority of the votes cast on the proposal. Abstentions will have no effect on the results of this vote.

## Where Can I Find More Information About My Voting Rights as a Shareholder?

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The SEC has an informational website that provides shareholders with general information about how to cast their vote and why voting should be an important consideration for shareholders. You may access that website at [sec.gov/spotlight/proxymatters.shtml](http://sec.gov/spotlight/proxymatters.shtml).

# Item 1 Election of Directors

Our board of directors has nominated Alan Garber, Margaret G. McGlynn and William D. Young for election at our 2017 annual meeting of shareholders to hold office until our 2020 annual meeting of shareholders.

Our board of directors is our company's ultimate decision-making body, except with respect to those matters reserved to the shareholders. Our board selects our senior management team, who in turn is responsible for the day-to-day operations of our company. Our board acts as an advisor and counselor to senior management and oversees its performance.

Our board currently consists of directors divided into three classes, with each class holding office for a three-year term. Margaret McGlynn and William D. Young, current Class I Directors, and Alan Garber, who would join our board as a Class I Director upon election by our shareholders, have been nominated by our board for election at the 2017 annual meeting of shareholders for three-year terms that will expire at the 2020 annual meeting of shareholders. If the amendments to our charter and by-laws providing for destaggering of the board are approved at our 2017 annual meeting, each class of our directors will continue through their current terms and would stand for re-election for one year terms at future annual meetings. Joshua Boger, a current Class I Director, is not standing for re-election. Each of the nominees has agreed to be named in this proxy statement and to serve if elected. We believe that all of the nominees will be able and willing to serve if elected. However, if any nominee should become unable for any reason or unwilling to serve, proxies may be voted for another person nominated as a substitute by our board, or our board may reduce the number of directors.

## Board Structure and Composition

The corporate governance and nominating committee of our board of directors is responsible for recommending the composition and structure of our board and for developing criteria for board membership. This committee regularly reviews director competencies, qualities and experiences, with the goal of ensuring that our board is comprised of an effective team of directors who function collegially and who are able to apply their experience toward meaningful contributions to general corporate strategy and oversight of corporate performance, risk management, organizational development and succession planning.

Our by-laws provide that the size of our board may range between three and eleven members. We currently have nine members on our board. Our corporate governance and nominating committee may seek additional director candidates who meet the criteria below in order to complement the qualifications and experience of our existing board members. Our corporate governance and nominating committee may engage a search firm to recommend candidates who satisfy the criteria.

## Director Criteria, Qualifications and Experience; Diversity

The corporate governance and nominating committee seeks to recommend for nomination directors of stature who have a substantive knowledge of our business and industry or who can bring to the board specific and valuable strategic or management capabilities acquired in other industries. The committee expects each of our directors to have proven leadership, sound judgment, integrity and a commitment to the success of our company. We also seek personal qualities that foster a respectful environment in which our directors listen to one another and are engaged and constructive. These goals for our board composition presuppose a diverse range of viewpoints, experiences and specific expertise. The corporate governance and nominating committee considers a nominee's personal characteristics and business experience relative to those of our existing board members, including the type of prior management experience, levels of expertise relevant to our business and its growth stage, prior board service, reputation in the business community, personal characteristics such as gender and race and other factors that the committee believes to be important. In addition, in 2017 our board approved guidelines that provide board service to Vertex of over 20 years and age of over 72 would be considered as factors when considering whether or not to re-nominate a director for board service. At this time, our commitment to diversity is demonstrated by the composition of our board, which includes three women and two ethnically diverse individuals.

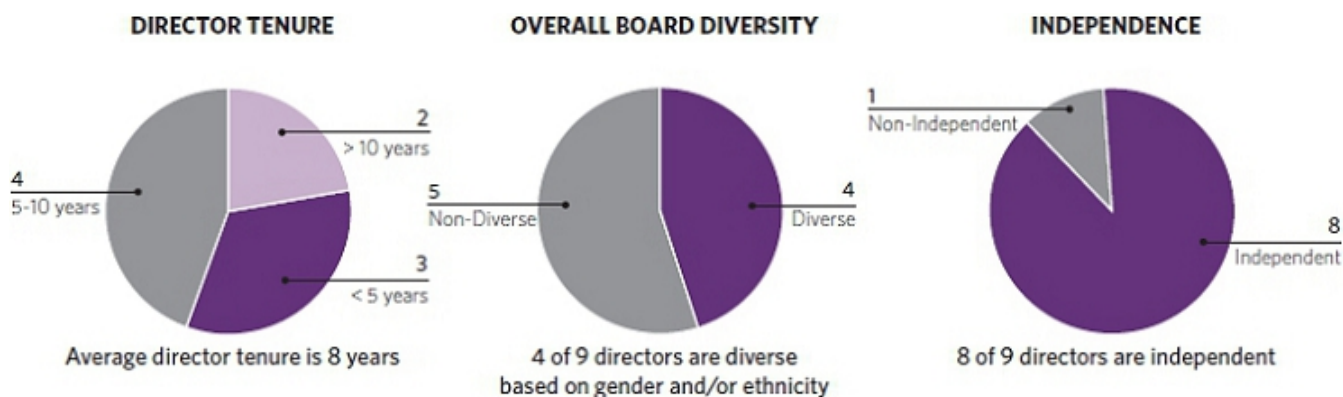
The key experience, qualifications, attributes and skills brought by our directors to our board that are important to our business include:

- **Leadership experience.** We believe that directors who have held significant leadership positions over extended periods of time provide our company with special insights. These directors generally have a practical understanding of organizational processes and strategy that is valuable during periods of organizational change and growth.
- **Industry knowledge.** We seek directors with substantive knowledge of the biotechnology and pharmaceutical industries and/or expertise regarding healthcare providers and public policy. We believe that having a substantial portion of the members of our board comprised of individuals with experience in these areas provides our board with the background necessary to counsel our management regarding the issues facing our company.
- **Financial expertise.** We believe that an understanding of finance is important for members of our board, and our budgeting processes and financial and strategic transactions require our directors to be financially knowledgeable. In addition, we seek to have a number of directors qualified to serve on our audit and finance committee and at least one director with in-depth knowledge of financial statements and financial reporting processes sufficient to qualify as an audit committee financial expert under applicable standards.



- **Scientific experience.** As a biotechnology company that seeks to develop transformative medicines for patients with serious diseases, we look for directors with backgrounds in science and technology and, in particular, the research and development of pharmaceutical products.
- **Commitment to company values and goals.** We seek directors who are committed to our company and its values and goals and who value the contributions that can be provided by individuals who believe in our company and its prospects for success.

Below we highlight the composition of our continuing directors and our director nominee.



## Shareholder-Recommended Director Candidates

The corporate governance and nominating committee will consider director candidates recommended by shareholders using the same criteria for director selection described above under *Director Criteria, Qualifications and Experience; Diversity*. Shareholders recommending candidates for consideration should submit any pertinent information regarding the candidate, including biographical information and a statement by the proposed candidate that he or she is willing to serve if nominated and elected, by mail to our corporate secretary at our offices at 50 Northern Avenue, Boston, Massachusetts 02210. If a shareholder wishes to nominate a candidate to be considered for election as a director at the 2018 annual meeting of shareholders using the procedures set forth in our by-laws, the shareholder must follow the procedures described in *Other Information—Shareholder Proposals for the 2018 Annual Meeting and Nominations for Director* on page 80 of this proxy statement.

Our by-laws provide for proxy access, a process that allows qualifying shareholders to nominate a director candidate for consideration at an annual meeting of shareholders and have such candidate be included in our proxy materials for the applicable shareholder meeting. The key elements of our proxy access by-law are as follows:

Provision	Requirement
Ownership Threshold and Holding Period	Available to shareholders owning 3% or more of our shares continuously for at least 3 years.
Number of Board Seats	Total number of proxy access nominees is capped at 20% of the existing board seats (or the closest whole number below 20%), with a minimum of two.
Creeping Control	A proxy access nominee elected to our board counts towards the cap on proxy access nominees for the two annual meetings following the election if such proxy access nominee’s term extends beyond the upcoming annual meeting.
Aggregation Limits	20-shareholder limit on the number of shareholders who can aggregate their shares to satisfy the 3% ownership requirement.
Proxy Fights	Proxy access nominees will not be included in the proxy materials if we receive notice that a shareholder intends to nominate a candidate who is not to be included in our proxy materials.
Future Ineligibility	Proxy access nominees who fail to receive at least 10% of the votes cast “for” such nominee may not be re-nominated as a proxy access nominee for the next two annual meetings.

The above table is only a summary of our proxy access by-law and is qualified in its entirety by our by-laws, which is set forth in Exhibit 3.1 of a Quarterly Report, that we filed with the SEC on May 3, 2016. A shareholder who wishes to nominate a proxy access nominee to be considered for election as a director at the 2018 annual meeting of shareholders, must follow the procedures set forth in our by-laws as well as those described in *Other Information—Shareholder Proposals for the 2018 Annual Meeting and Nominations for Director* on page 80 of this proxy statement.

## Majority Vote Standard

Our by-laws provide for a majority vote standard for uncontested elections of our directors. Under our by-laws, director nominees in an uncontested election who receive more votes cast “for” such director nominee than “withheld” from such director nominee are elected. Our board’s policy is that any nominee for director in an uncontested election who receives a greater number of votes “withheld” than votes “for” the nominee’s election shall promptly tender his or her resignation to the chair of our board following certification of the shareholder vote. Our corporate governance and nominating committee will promptly consider the tendered resignation. Based on all factors it deems in its discretion to be relevant, the committee will recommend that our board either accept or reject the resignation and may recommend that the board adopt measures designed to address any issues perceived to underlie the election results. Our board will then act on the corporate governance and nominating committee’s recommendation. We will promptly disclose our board’s decision, including, if applicable, the reasons for rejecting the tendered resignation. Any director whose resignation is being considered under this policy will not participate in the corporate governance and nominating committee or board considerations, recommendations or actions with respect to the tendered resignation.

## Director Nominees

### Class I Directors — Present Terms Expiring in 2017 and Proposed Terms to Expire in 2020

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#### Margaret G. McGlynn

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**Age: 57**  
**Director Since: 2011**

**Committee Assignments:**

- Member – Corporate Governance and Nominating Committee
- Member – Science and Technology Committee

Following a 26 year career with Merck, Ms. McGlynn served as the President and Chief Executive Officer of the International AIDS Vaccine Initiative, a global not-for-profit organization whose mission is to ensure the development of safe, effective and accessible HIV vaccines for use throughout the world, from July 2011 until September 2015. Ms. McGlynn served as President, Vaccines and Infectious Diseases of Merck & Co., Inc. from 2005 until 2009. Ms. McGlynn joined Merck in 1983 and served in a variety of marketing, sales and managed care roles. Ms. McGlynn serves as a member of the Board of Directors for Air Products and Chemicals, Inc., a company specializing in gases and chemicals for industrial uses, and Amicus Therapeutics, Inc., a biopharmaceutical company focused on rare diseases. She is also a member of the National Industrial Advisory Committee at the University at Buffalo School of Pharmacy and Pharmaceutical Sciences. Ms. McGlynn holds a B.S. in Pharmacy and an M.B.A. in Marketing from the State University of New York at Buffalo.

**Skills and Qualifications:** Ms. McGlynn’s leadership experience and industry knowledge make her a valuable contributor to our board of directors. Her service as an executive at Merck and her service on the board of Amicus Therapeutics and the board and audit committee of Air Products and Chemicals, Inc. give her a practical understanding of organizational practices valuable to a company at our stage of growth. Her experience in the development and commercialization of products across several therapeutic areas, and her board and advocacy experience in rare diseases, provides her with a valuable understanding of the scientific, regulatory and marketplace issues we face in the drug development and commercialization process.

#### William D. Young

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**Age: 72**  
**Director Since: 2014**

**Committee Assignments:**

- Member – Corporate Governance and Nominating Committee
- Member – Management Development and Compensation Committee

Mr. Young is a Venture Partner at Clarus Ventures, a life sciences venture capital firm, which he joined in 2010. Prior to Clarus Ventures, Mr. Young served from 1999 until June 2009 as the Chairman and Chief Executive Officer of Monogram Biosciences, Inc., a biotechnology company acquired by Laboratory Corporation of America in June 2009. From 1980 to 1999, Mr. Young was employed at Genentech, Inc. in positions of increasing responsibility, including as Chief Operating Officer from 1997 to 1999, where he was responsible for all product development, manufacturing and commercial functions. Prior to joining Genentech, Mr. Young was with Eli Lilly & Co. for 14 years. Mr. Young currently serves as the Chairman of the Board of Directors of NanoString Technologies, Inc., and as a member of the Board of Directors of Theravance BioPharma Inc. Mr. Young retired from BioMarin Pharmaceutical Inc.’s Board of Directors in November 2015 and from Biogen’s Board of Directors in June 2014. Mr. Young holds a B.S. in Chemical Engineering from Purdue University, an M.B.A. from Indiana University and an Honorary Doctorate in Engineering from Purdue University. Mr. Young was elected to the National Academy of Engineering in 1993 for his contributions to biotechnology.

**Skills and Qualifications:** Mr. Young is a valuable contributor to our board of directors due to the in-depth knowledge of the biotechnology industry that he acquired through his extensive experience as both a CEO and board member at numerous pharmaceutical and biotechnology organizations and as a venture capitalist focused on the life sciences industry. Mr. Young's strong leadership qualities, global industry knowledge and financial expertise provide him with the background to work collaboratively with both management and fellow board members in order to address issues facing our company.

## Director Nominee — Proposed Term to Expire in 2020

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**Alan Garber, M.D., Ph.D.**

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**Age: 61**

Dr. Garber is Provost of Harvard University and the Mallinckrodt Professor of Health Care Policy at Harvard Medical School, a Professor of Economics in the Faculty of Arts and Sciences, Professor of Public Policy in the Harvard Kennedy School of Government, and Professor in the Department of Health Policy and Management in the Harvard T.H. Chan School of Public Health. From 1998 until he joined Harvard in 2011, he was the Henry J. Kaiser Jr. Professor, a Professor of Medicine, and a Professor (by courtesy) of Economics, Health Research and Policy, and of Economics in the Graduate School of Business at Stanford University. Dr. Garber is a member of the National Academy of Medicine, the American Society of Clinical Investigation, the Association of American Physicians and the Board on Science, Technology, and Economic Policy at the National Academies. He is a Fellow of the American College of Physicians and the Royal College of Physicians. Dr. Garber is also a Research Associate with the National Bureau of Economic Research and served as founding Director of its Health Care Program for nineteen years. He has also served as a member of the National Advisory Council on Aging at the National Institutes of Health, as a member of the Board of Health Advisers of the Congressional Budget Office and as Chair of the Medicare Evidence Development and Coverage Advisory Committee at the Centers for Medicare and Medicaid Services. Dr. Garber has been a member of the Board of Directors of Exelixis, Inc., a biopharmaceutical company, since 2005. Dr. Garber holds an A.B. summa cum laude, an A.M. and a Ph.D., all in Economics, from Harvard University, and an M.D. with research honors from Stanford University.

**Skills and Qualifications:** Dr. Garber brings extensive leadership experience and knowledge regarding science, medicine and the healthcare industry and in particular healthcare economics to our board of directors. The insights he has developed as an expert in health care policy and as an advisor to government agencies will provide our board important perspectives on the issues facing our company.

## Board Recommendation

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In each of the director nominee and continuing director biographies, we highlight the specific experience, qualifications, attributes and skills that led the board of directors to conclude that the director nominee or continuing director should serve on our board at this time.

Our board of directors recommends that shareholders vote **FOR** each of the nominees.

## Continuing Directors

### Class II Directors — Terms to Expire in 2018

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#### **Sangeeta N. Bhatia, M.D., Ph.D.**

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**Age: 48**  
**Director Since: 2015**

**Committee Assignments:**

- Chair - Science and Technology Committee
- Member – Corporate Governance and Nominating Committee

Dr. Bhatia is a professor at the Massachusetts Institute of Technology, where she currently serves as the John J. and Dorothy Wilson Professor of Health Sciences & Technology/Electrical Engineering & Computer Science. Prior to joining the Massachusetts Institute of Technology in 2005, Dr. Bhatia was a professor of bioengineering and medicine at the University of California at San Diego from 1998 through 2005. Dr. Bhatia also is an investigator for the Howard Hughes Medical Institute, a member of the Department of Medicine at Brigham and Women's Hospital, a member of the Broad Institute and a member of the Koch Institute for Integrative Cancer Research. Dr. Bhatia holds an Sc.B. in biomedical engineering from Brown University, an S.M. and Ph.D. in Mechanical Engineering from the Massachusetts Institute of Technology and an M.D. from Harvard Medical School.

**Skills and Qualifications:** Dr. Bhatia is a leading academic scientist and medical researcher. Her extensive experience in the field of biomedical engineering and in-depth understanding on the use of advanced technologies in medical research provides valuable insights to our board of directors, including with respect to our key research and development initiatives.

#### **Jeffrey M. Leiden, M.D., Ph.D.**

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**Age: 61**  
**Director Since: 2009**  
**Chairman, Chief Executive Officer and President**

Dr. Leiden is our Chairman, Chief Executive Officer and President. He has held the positions of Chief Executive Officer and President since February 2012 after joining us as CEO Designee in December 2011. He has been a member of our Board of Directors since July 2009, the Chairman of our Board of Directors since May 2012, and served as our lead independent director from October 2010 through December 2011. Dr. Leiden was a Managing Director at Clarus Ventures, a life sciences venture capital firm, from 2006 through January 2012. Dr. Leiden was President and Chief Operating Officer of Abbott Laboratories, Pharmaceuticals Products Group, and a member of the Board of Directors of Abbott Laboratories from 2001 to 2006. From 1987 to 2000, Dr. Leiden held several academic appointments, including the Rawson Professor of Medicine and Pathology and Chief of Cardiology and Director of the Cardiovascular Research Institute at the University of Chicago, the Elkan R. Blout Professor of Biological Sciences at the Harvard School of Public Health, and Professor of Medicine at Harvard Medical School. He is an elected member of both the American Academy of Arts and Sciences, and the Institute of Medicine of the National Academy of Sciences. Dr. Leiden is a senior advisor to Clarus Ventures. Dr. Leiden serves as a director of Quest Diagnostics Inc., a medical diagnostics company, and Massachusetts Mutual Life Insurance Company, an insurance company. Dr. Leiden was a director and the non-executive Vice Chairman of the board of Shire plc, a specialty biopharmaceutical company, from 2006 to January 2012. Dr. Leiden received his M.D., Ph.D. and B.A. degrees from the University of Chicago.

**Skills and Qualifications:** Dr. Leiden possesses strong leadership qualities, demonstrated through his service as a senior executive in the pharmaceutical industry and as a life sciences venture capitalist, and has extensive knowledge of the science underlying drug discovery and development through his experiences as a distinguished physician, scientist and teacher. He also provides our board of directors with in-depth knowledge of our company through the day-to-day leadership of our executives.

#### **Bruce I. Sachs**

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**Age: 57**  
**Director Since: 1998**  
**Co-lead Independent Director**

**Committee Assignments:**

- Chair – Management Development and Compensation Committee
- Member – Audit and Finance Committee

Mr. Sachs is a General Partner at Charles River Ventures, a venture capital firm he joined in 1999. From 1998 to 1999, he served as Executive Vice President and General Manager of Ascend Communications, Inc. From 1997 until 1998, Mr. Sachs served as President and Chief Executive Officer of Stratus Computer, Inc. From 1995 to 1997, he served as Executive Vice President and General Manager of the Internet Telecom Business Group at Bay Networks, Inc. From 1993 to 1995, he served as President and Chief Executive Officer of Xylogics, Inc. Mr. Sachs holds a B.S.E.E. in electrical engineering from Bucknell University, an M.E.E. in electrical engineering from Cornell University, and an M.B.A. from Northeastern University.

**Skills and Qualifications:** Mr. Sachs brings strong business judgment and financial analytical skills, honed through his experience developing business strategy at a senior management level and his success in building companies and in venture capital, to our board of directors. In addition, Mr. Sachs has extensive business leadership experience, including service as a CEO at a technology company, as well as financial expertise.

## Class III Directors — Terms to Expire in 2019

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### Terrence C. Kearney

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**Age: 62**  
**Director Since: 2011**

**Committee Assignments:**

- Chair – Audit and Finance Committee
- Member – Management Development and Compensation Committee

Mr. Kearney served as the Chief Operating Officer of Hospira, Inc., a specialty pharmaceutical and medication delivery company, from April 2006 to January 2011. From April 2004 to April 2006, he served as Hospira's Senior Vice President, Finance, and Chief Financial Officer, and he served as Acting Chief Financial Officer through August 2006. Mr. Kearney served as Vice President and Treasurer of Abbott Laboratories from 2001 to April 2004. From 1996 to 2001, Mr. Kearney was Divisional Vice President and Controller for Abbott's International Division. Mr. Kearney serves as a member of the Board of Directors at Acceleron Pharma Inc., a biopharmaceutical company, and AveXis, Inc., a gene therapy company, and served as a member of the Board of Directors at Innoviva, Inc. (formerly known as Theravance, Inc.), a royalty management company, until April 2016. He received his B.S. in biology from the University of Illinois and his M.B.A. from the University of Denver.

**Skills and Qualifications:** Mr. Kearney's corporate leadership experience, industry knowledge and financial expertise make him a valuable contributor to our board of directors. He has a practical perspective on the management of global pharmaceutical operations, including commercial, manufacturing and research and development activities, and financial management strategies. He is an "audit committee financial expert" with particular experience in matters faced by the audit committee of a company with pharmaceutical product revenues and related expenses.

### Yuchun Lee

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**Age: 51**  
**Director Since: 2012**

**Committee Assignments:**

- Member – Audit and Finance Committee
- Member – Science and Technology Committee

Mr. Lee is an Executive in Residence (XIR) and Partner of General Catalyst Partners, a venture capital firm, which he joined in April of 2013. Mr. Lee also serves as the Chief Executive Officer of Allego Inc. and Executive Chairman of Clarabridge. Mr. Lee was the Vice President of IBM's Enterprise Marketing Management Group from November 2010 through January 2013. Mr. Lee co-founded Unica Corporation, a provider of software and services used to automate marketing processes, in 1992, and was Unica's President and/or Chief Executive Officer from 1992 through November 2010, when Unica was acquired by IBM. From 1989 to 1992, Mr. Lee was a senior consultant at Digital Equipment Corporation, a supplier of general computing technology and consulting services. Mr. Lee holds a B.S. and an M.S. in electrical engineering and computer science from the Massachusetts Institute of Technology and an M.B.A. from Babson College.

**Skills and Qualifications:** Mr. Lee's expertise in marketing processes and customer engagement and business and financial experience make him a valuable contributor to our board of directors. Mr. Lee is an innovator who founded and managed the growth of a successful technology company and gained further leadership experience while serving as an executive at IBM. Mr. Lee's experiences outside of the biopharmaceutical sector provide the board with an important perspective on the issues facing the company.

### Elaine S. Ullian

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**Age: 69**  
**Director Since: 1997**  
**Co-lead Independent Director**

**Committee Assignments:**

- Chair – Corporate Governance and Nominating Committee
- Member – Management Development and Compensation Committee

Ms. Ullian served as President and Chief Executive Officer of Boston Medical Center, a private, not-for-profit, 626-bed, academic medical center with a community-based focus, from 1996 through January 2010. From 1994 to 1996, she served as President and Chief Executive Officer of Boston University Medical Center Hospital. From 1987 to 1994, Ms. Ullian served as President and Chief Executive Officer of Faulkner Hospital. She also serves as a director of Thermo Fisher Scientific Inc. and Hologic, Inc. Ms. Ullian holds a B.A. in political science from Tufts University and an M.P.H. from the University of Michigan.

**Skills and Qualifications:** Ms. Ullian brings significant leadership experience acquired as the CEO of large health care providers to our board of directors. The knowledge she obtained serving as an executive, together with her extensive experience serving on the boards of directors of multiple public companies in the healthcare field, provide her with the expertise required to serve as one of our co-lead independent directors and as the chair of our corporate governance and nominating committee. She also provides the board with the perspective of providers, payors and patients, for whom our products are intended.



# CORPORATE GOVERNANCE AND RISK MANAGEMENT

We are committed to good corporate governance and integrity in our business dealings. Our governance practices are documented in our Statement of Corporate Governance Principles, which addresses the role and composition of our board of directors and the functioning of the board and its committees. You can find our governance documents, including our Statement of Corporate Governance Principles, charters for each committee of the board and our Code of Conduct, on our website [www.vrtx.com](http://www.vrtx.com) under “Investors—Corporate Governance—Governance Documents.”

## Independence, Chair and Co-lead Independent Directors

Our board of directors has determined that eight of our nine directors qualify as “independent” under the definition of that term adopted by The Nasdaq Stock Market LLC, or NASDAQ. These directors include Dr. Bhatia, Mr. Kearney, Mr. Lee, Ms. McGlynn, Mr. Sachs, Ms. Ullian and Mr. Young. If Dr. Garber is elected to our board, we expect he will qualify as an independent director. Our independent directors generally meet in executive session at each regularly scheduled board meeting.

Dr. Leiden, our president and chief executive officer, serves as the chairman of our board. Our employment agreement with Dr. Leiden provides that he will serve as the chairman of our board through March 31, 2020. In addition, we have two co-lead independent directors who are elected by the independent directors. Each of the board committees is chaired by one of our independent directors.

Our board believes that strong, independent board leadership is a critical aspect of effective corporate governance, and our corporate governance principles require that if the chair is not an independent director, then the independent directors elect a lead independent director. Since December 2011, Mr. Sachs and Ms. Ullian have served as our co-lead independent directors. We believe this structure provides our board independent leadership, while providing the benefit of having our chief executive officer, the individual with primary responsibility for managing our day-to-day operations, chair regular board meetings as we discuss key business and strategic issues. Combined with the co-lead independent directors and experienced and independent committee chairs, this structure provides strong independent oversight of management.

Our co-lead independent directors' responsibilities include:

- calling and leading regular and special meetings of the independent directors;
- serving as a liaison between our executive officers and the independent directors;
- reviewing the planned dates for regularly scheduled board meetings and the primary agenda items for each meeting; and
- reviewing with the chair of each board committee agenda items that fall within the scope of the responsibilities of that committee.

## Board Committees

Our board of directors has established various committees to assist in discharging its duties: the audit and finance committee, the corporate governance and nominating committee, the MDCC and the science and technology committee. Each member of the audit and finance committee, corporate governance and nominating committee and MDCC is an independent director as that term is defined by the SEC and NASDAQ. The primary responsibilities of each of the committees are set forth below, and the committee memberships are provided in the table appearing on page 20 of this proxy statement.

Each of the committees has the authority, as its members deem appropriate, to engage legal counsel or other experts or consultants in order to assist the committee in carrying out its responsibilities.

## Risk Management

Our board of directors discharges its overall responsibility to oversee risk management with a focus on our most significant risks. We face considerable risk related to the commercialization of our approved products, including regulatory risk with respect to our promotional activities and competition from approved drugs and investigational drug candidates that may have product profiles superior to our approved products. We continue to invest significant resources in research programs and clinical development programs as part of our strategy to develop transformative medicines for patients with serious diseases. With respect to each of our drug development and commercialization programs, we face considerable risk that the program will not ultimately result in a commercially successful pharmaceutical product. Our board and its committees monitor and manage the strategic, compliance and operational risks related to KALYDECO, ORKAMBI and our research and development programs through regular board and committee discussions that include presentations to the board and its committees by our executive officers as well as during in-depth short- and long-term strategic reviews held at least annually.

For certain specific risk types, our board has delegated oversight responsibility to board committees as follows:

- Our audit and finance committee oversees our enterprise risk management programs and policies, including those related to our financial and accounting systems, accounting policies and investment strategies, intellectual property strategy, information technology systems and steps our management has taken to monitor, mitigate and report on those exposures. The audit and finance committee also is responsible for addressing risks arising from related party transactions.
- Our MDCC oversees risks associated with our compensation policies, management resources and structure, succession planning, and management development and selection processes.
- Our corporate governance and nominating committee oversees risks related to the company’s governance structure.
- Our science and technology committee oversees risks related to our research and development investments.

## Code of Conduct

We have adopted a Code of Conduct that applies to all of our directors and employees, including our chief executive officer and chief financial and accounting officers. Our Code of Conduct is available on our website [www.vrtx.com](http://www.vrtx.com) under “Investors—Corporate Governance—Governance Documents.” Disclosure regarding any amendments to, or waivers from, provisions of the Code of Conduct that apply to our directors or principal executive, financial or accounting officers will be posted on our website or included in a Current Report on Form 8-K within four business days following the date of the amendment or waiver.

## Board Attendance, Committee Meetings and Committee Membership

Director <sup>(1)</sup>	Independence	Board	Audit and Finance	Corporate Governance and Nominating	Management Development and Compensation	Science and Technology	2016 Attendance at Meetings <sup>(2)</sup>
Sangeeta N. Bhatia	✓	●		●		●	81%
Joshua Boger	✓	●				●	100%
Terrence C. Kearney	✓	●	□		●		100%
Yuchun Lee	✓	●	●			●	81%
Jeffrey M. Leiden		□					100%
Margaret G. McGlynn	✓	●		●		●	100%
Bruce I. Sachs	✓	★	●		□		100%
Elaine S. Ullian	✓	★		□	●	●	94%
William D. Young	✓	●		●	●		100%
<b>2016 Meetings</b>		7	10	5	6	4	

- = Member
- = Chair
- ★ = Co-lead

(1) We encourage each of our director to attend shareholder meetings, and each of our directors attended our 2016 annual meeting of shareholders.  
 (2) Includes meetings of the board of directors and meetings of each committee of the board while the director served on such committee.

## Audit and Finance Committee

The primary purposes of the audit and finance committee are to:

- appoint, oversee and replace, if necessary, our independent registered public accounting firm;
- assist our board of directors in fulfilling its responsibility for oversight of our accounting and financial reporting processes; and
- review and make recommendations to our board concerning our financial structure and financing strategy.

Our independent registered public accounting firm reports directly to, and is held accountable by, our audit and finance committee in connection with the audit of our annual financial statements and related services.

Mr. Kearney, the chair of our audit and finance committee, is our “audit committee financial expert” as that term is defined in applicable regulations of the SEC. In addition, each of the other members of the audit and finance committee are qualified to serve as an audit committee financial expert under the SEC’s rules.

The report of the audit and finance committee appears on page 33 of this proxy statement.

Our audit and finance committee reviews and, if appropriate, recommends for approval or ratification by our board, all transactions with related persons that are required to be disclosed by us pursuant to Item 404(a) of Regulation S-K promulgated by the SEC, except for

transactions, if any, related to the employment of executive officers, which would be recommended for approval by the MDCC. Our policies and procedures with respect to transactions with related persons are governed by our written Related Party Transaction Policy. Pursuant to this policy, related party transactions include transactions, arrangements or relationships in which our company is a participant, the amount involved exceeds \$120,000, and one of our executive officers, directors, director nominees or 5% shareholders or their immediate family members, whom we refer to as related persons, has a direct or indirect material interest, except where disclosure of such transaction would not be required pursuant to Item 404(a) of Regulation S-K. As appropriate for the circumstances, our audit and finance committee will review and consider the related person's interest in the related party transaction and such other factors as it deems appropriate. In 2016, we had one transaction, disclosable pursuant to Item 404(a) of Regulation S-K, pursuant to which we obtained software services from Allego Inc., a company for which Yuchun Lee serves as CEO. The transaction involved no payments directly to Mr. Lee and payments of approximately \$225,000 to Allego Inc., for software licenses that extend through December 2017. The audit committee approved the transaction as a transaction that was entered into at arm's length and under terms comparable to those that would be provided to other unrelated entities in the marketplace.

## Corporate Governance and Nominating Committee

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The corporate governance and nominating committee:

- assists our board of directors in developing and implementing our corporate governance principles;
- recommends the size and composition of our board and its committees;
- develops and recommends to our board an annual self-evaluation process to assess the effectiveness of our board and oversees this process;
- reviews and recommends non-employee director compensation on an annual basis;
- identifies qualified individuals to become members of our board;
- recommends director nominations to the full board; and
- assists the board in external recruiting and evaluating potential candidates for the CEO position.

## Management Development and Compensation Committee

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The primary purposes of the MDCC are to oversee the discharge of our board of directors' responsibilities relating to:

- compensation and development of our executives; and
- review and approval of our benefit and equity compensation plans.

The MDCC has the authority to delegate any of its responsibilities to individual members of the MDCC to the extent deemed appropriate by the MDCC in its sole discretion, but subject always to the general oversight of the board.

See *Compensation Discussion and Analysis—Detailed Discussion* below for a discussion of the MDCC's role in overseeing executive compensation.

The report of the MDCC appears on page 63 of this proxy statement.

## Science and Technology Committee

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Our science and technology committee discharges our board of directors' responsibilities relating to the oversight of our investment in pharmaceutical research and development. In furtherance of that oversight function, the science and technology committee:

- reviews and assesses our current and planned research and development programs and technology initiatives from a scientific perspective;
- assesses the capabilities of our key scientific personnel and the depth and breadth of our scientific resources;
- provides strategic advice to our board regarding emerging science and technology issues and trends; and
- periodically reviews our patent portfolio and strategy.

## Compensation Committee Interlocks and Insider Participation

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Mr. Kearney, Mr. Sachs, Ms. Ullian and Mr. Young served on the MDCC during 2016. Each member of the MDCC was an independent director while serving on the MDCC. No member of our board of directors who was a member of our MDCC at any time during 2016 has ever been one of our employees or officers. No member of our board who was a member of our MDCC at any time during 2016 has ever been a party to a transaction required to be disclosed pursuant to Item 404(a) of Regulation S-K prior to becoming a member of our MDCC. During 2016, none of our executive officers served as a member of the board of directors or compensation committee of the board of directors, or performed the equivalent functions, of any entity that has one or more executive officers serving as a member of our board or the MDCC.

## Non-Employee Director Compensation Program

We have designed and implemented our compensation program for our non-employee directors to attract, motivate and retain individuals who are committed to our values and goals and who have the expertise and experience that we need to achieve those goals.

The compensation program for our non-employee directors is:

<b>Cash</b>		
Annual Cash Retainer		\$ 85,000
Annual Committee Chair Retainer	Audit and Finance Committee	\$ 30,000
	Management Development and Compensation Committee	\$ 25,000
	Corporate Governance and Nominating Committee	\$ 20,000
	Science and Technology Committee	\$ 20,000
Committee Membership Retainer	Audit and Finance Committee	\$ 15,000
	Management Development and Compensation Committee	\$ 10,000
	Corporate Governance and Nominating Committee	\$ 10,000
	Science and Technology Committee	\$ 10,000
Annual Co-Lead Independent Director Retainer		\$ 40,000
<b>Equity</b>		
Initial Equity Grant	Value-based awards, with a 50/50 mix of restricted stock units and options	
	<ul style="list-style-type: none"> <li>• \$275,000 in options vesting quarterly over four years from the date of grant</li> <li>• \$275,000 in restricted stock units vesting annually over four years from the date of grant</li> </ul>	
Annual Equity Retainer	On June 1 of each year, value-based awards with a 50/50 mix of restricted stock units and options	
	<ul style="list-style-type: none"> <li>• \$275,000 in options that are fully-vested upon grant</li> <li>• \$275,000 in restricted stock units that vests on the first anniversary of the date of grant</li> </ul>	

Each of our non-employee directors is eligible to defer the cash and restricted stock portion of his/her compensation set forth above and elect to receive deferred stock units that are paid out in common stock upon the earliest to occur of (i) termination of the non-employee director's service on our board of directors, (ii) a change of control and (iii) the non-employee directors disability or death.

Our non-employee directors also are reimbursed for their business-related expenses incurred in connection with attendance at board and committee meetings and related activities. Our only employee director, Dr. Leiden, receives no separate compensation for his service in such capacity.

We annually review the compensation program for our non-employee directors. In 2015, we changed our compensation program for non-employee directors effective in 2016. We did not make any changes to our non-employee director compensation program for 2017 based on this review.

## 2016 Summary Compensation

Director	Fees Earned or Paid in Cash	Stock Units <sup>(1)</sup>	Option Awards <sup>(1)</sup>	Total
Sangeeta N. Bhatia	\$ 105,000	\$ 275,013	\$ 288,083	\$ 668,096
Joshua Boger	\$ 105,000	\$ 275,013	\$ 288,083	\$ 668,096
Terrence C. Kearney	\$ 125,000	\$ 275,013	\$ 288,083	\$ 688,096
Yuchun Lee	\$ 110,000	\$ 275,013	\$ 288,083	\$ 673,096
Margaret G. McGlynn	\$ 95,000	\$ 275,013	\$ 288,083	\$ 658,096
Bruce I. Sachs <sup>(2)</sup>	\$ 165,000	\$ 275,013	\$ 288,083	\$ 728,096
Elaine S. Ullian	\$ 155,000	\$ 275,013	\$ 288,083	\$ 718,096
William D. Young	\$ 105,000	\$ 275,013	\$ 288,083	\$ 668,096

(1) The amounts set forth under the captions "Stock Units" and "Option Awards" in the table above represent the grant-date fair value for financial statement reporting purposes of the equity awards granted during 2016. Our methodology, including underlying estimates and assumptions, for calculating these values is set forth in Note N to our consolidated financial statements included in our 2016 Annual Report on Form 10-K, filed with the SEC on February 23, 2017.

(2) Mr. Sachs elected to defer his quarterly cash retainers which were paid in deferred stock units on each of the quarterly payment dates occurring on the 15<sup>th</sup> of the month following the quarter end. The fair market value of each deferred stock unit on each of those dates were \$84.31, \$89.45, \$80.01 and \$81.16.

## 2016 Equity Grants

Grant	Date	Shares	Exercise Price	Grant-Date Fair Value
Annual Non-Employee Director Option Grants	June 1, 2016	7,073	\$ 93.51	\$ 288,083
Annual Non-Employee Director Stock Unit Grants	June 1, 2016	2,941	N/A	\$ 275,013

## Outstanding Equity

As of December 31, 2016, our non-employee directors had outstanding restricted stock units, deferred stock units and stock options to purchase our common stock as follows:

Director	Outstanding Restricted Stock Units	Outstanding Deferred Stock Units	Exercisable Options	Total Outstanding Options
Sangeeta N. Bhatia	2,941	—	18,323	37,073
Joshua Boger	—	2,941	751,573	751,573
Terrence C. Kearney	2,941	—	67,448	67,448
Yuchun Lee	2,941	—	90,407	90,407
Margaret G. McGlynn	2,941	—	87,073	87,073
Bruce I. Sachs	—	4,407	127,073	127,073
Elaine S. Ullian	2,941	—	74,573	74,573
William D. Young	2,941	—	65,823	77,073

## Non-Employee Director Stock Ownership Guidelines

We have stock ownership guidelines for our non-employee directors pursuant to which our non-employee directors should, within five years of becoming subject to the guidelines, achieve ownership of shares of our common stock with a value equal to at least three times the annual cash retainer.



## Item 2 Amendments to our Charter and By-laws

We are requesting that our shareholders approve amendments to our Restated Articles of Organization and Amended and Restated By-Laws. Our Restated Articles of Organization and Amended and Restated By-Laws currently provide that our board of directors be divided into three classes, with each class holding office for a three-year term.

At our 2016 annual meeting of shareholders, our shareholders approved a non-binding shareholder proposal requesting that we take necessary steps to declassify our board of directors. After the 2016 annual meeting of shareholders, we continued our engagement with our shareholders and monitored corporate governance trends and in February 2017, our board approved, subject to shareholder approval, amendments to our Restated Articles of Organization and Amended and Restated By-Laws.

The proposed amendments provide that, starting with our 2018 annual meeting of shareholders, directors elected to succeed those directors whose terms expire shall be elected for a term expiring at the next annual meeting of shareholders. As a result, all directors will be elected annually beginning with the election of directors at our 2020 annual meeting of shareholders. A director chosen to fill a vacancy not resulting from an enlargement of the board will hold office for the remaining term of his or her predecessor. A director chosen to fill a vacancy resulting from an enlargement of the board will hold office for a term expiring at the next annual meeting of shareholders. Each director will serve until his or her successor is duly elected and qualified, subject to prior death, resignation, retirement or removal. The proposed amendments to the Amended and Restated By-Laws include revisions to refer explicitly to our Restated Articles of Organization in certain circumstances rather than duplicate such provisions in the Amended and Restated By-Laws.

The full text of the proposed amendments that would become effective upon shareholder approval of this proposal and filing the Restated Articles of Organization with The Commonwealth of Massachusetts are attached to this proxy statement as Appendix A and Appendix B, with additions of text indicated by underlining and deletions of text indicated by strike-outs.

Our board of directors recommends a vote **FOR** the approval of the amendments to our restated articles of organization and amended by-laws. The affirmative vote by the holders of 80% of the shares outstanding as of the record date in person or by proxy on this matter is required for the approval of this proposal.

## Item 3 Amendment and Restatement of 2013 Stock and Option Plan

Our board of directors believes that our broad-based equity compensation program is essential to attract, retain and motivate people with the necessary talent and experience and to provide additional incentive to achieve our short- and long-term business objectives. We are requesting that our shareholders approve an amendment and restatement of our 2013 Stock and Option Plan, or 2013 Plan, that would increase the number of shares available for issuance under the 2013 Plan by 6.75 million shares.

On April 13, 2017, our board of directors amended and restated our 2013 Plan, subject to shareholder approval, to, among other things, increase the number of shares of common stock authorized for issuance under the 2013 Plan by 6.75 million shares.

Our 2013 Plan utilizes “fungible” shares, with stock options counting as one share against the total authorized shares and full value awards, such as restricted stock or restricted stock units, counting as 1.66 shares against the total authorized shares. We adopted this fungible share plan to provide flexibility in the types of awards we grant under our equity compensation program, while appropriately accounting for the difference between stock options and full value awards. Over the last several years, we have implemented changes in our equity compensation program for our employees, executives and our board that have significantly reduced dilution from our employee equity awards while maintaining a broad-based equity program. We believe that our equity compensation program has been fundamental to our success over the last several years and that the amendment and restatement of the 2013 Plan, which authorizes the issuance of additional shares subject to the 2013 Plan, is necessary in order to support our equity compensation program going forward.

### Maintenance of Broad-Based Equity Program While Reducing Dilution

Since our inception, we have compensated all eligible employees using a mix of cash and equity. The broad-based nature of our equity compensation program is an important element of our overall employee compensation program and reflects our philosophy that it is important for all of our employees to approach their jobs with a long-term commitment and perspective. Over the last several years, we have modified our equity compensation programs. These modifications are consistent with modifications other biotechnology companies have made as they matured from development-stage companies to commercial-stage companies with a strong financial profile. As a result of these changes, we granted on an absolute basis equity awards representing 35% fewer shares of common stock in 2016 as compared to 2012 and reduced our “burn rate” from 3.6% in 2012 to 2.0% in 2016.

	2012 Equity Awards	2013 Equity Awards	2014 Equity Awards	2015 Equity Awards	2016 Equity Awards	% Change 2012 v 2016
Total Shares Granted Subject to Equity Awards	7,525,000	6,276,000	5,629,000	5,035,000	4,887,000	(35)%
Burn Rate <sup>(1)</sup>	3.6%	2.8%	2.4%	2.1%	2.0%	
Awards Canceled, Forfeited or Expired	1,644,000	2,622,000	1,628,000	1,573,000	928,000	
Net Dilution	5,881,000	3,654,000	4,001,000	3,462,000	3,959,000	
Net Burn Rate	2.8%	1.6%	1.7%	1.4%	1.6%	

(1) “Burn rate” is defined as the number of equity awards granted in a specific year divided by the basic weighted average number of shares outstanding during that year.

We currently expect that we will grant fewer options in 2017 than 2016. As a result, although the MDCC and board retains discretion with respect to equity grants, we expect consistent with the last several years, that there will be a small further decline in the dilution to our shareholders from our equity compensation program in 2017 as compared to 2016.

### Key Provisions of our 2013 Plan

The 2013 Plan includes a number of provisions designed to serve shareholders’ interests and facilitate effective corporate governance, including the following:

- *Fungible Shares*: Options and other awards granted at a purchase price of 100% of the fair market value of a share of our common stock on the date of grant count against the number of shares authorized under our 2013 Plan at a rate of one share for each share granted. Any restricted stock, restricted stock units or other awards granted under the 2013 Plan at a purchase price less than 100% of the fair market value of a share of our common stock on the date of grant count against the number of shares authorized for issuance under our 2013 Plan at a rate of 1.66 shares for each share granted.

- *No Stock Option Re-pricing/Exchange:* Except in connection with specific corporate transactions (including stock dividends, stock splits, consolidations, mergers, recapitalizations and reorganizations), the 2013 Plan does not permit (i) the amendment of stock options or stock appreciation rights granted under the 2013 Plan to provide an exercise price that is lower than the then-current price per share of such outstanding option or stock appreciation right, (ii) the cancellation of any outstanding option or stock appreciation right (whether or not granted under the 2013 Plan) and the grant in substitution therefor of any award under the 2013 Plan covering the same or a different number of shares of common stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled option or stock appreciation right or (iii) the cancellation in exchange for a cash payment of any outstanding option or stock appreciation right with an exercise price per share above the then-current fair market value of our common stock without shareholder approval.
- *No Discounted Stock Options or SARs:* Stock options and stock appreciation rights cannot be granted with an exercise price less than the fair market value on the date of grant.
- *No “Evergreen” Provision:* The 2013 Plan does not contain an “evergreen” or similar provision. The 2013 Plan fixes the number of shares available for future grants and does not provide for any increase based on increases in the number of outstanding shares of common stock.
- *No Reload Rights:* Stock options granted under the 2013 Plan do not contain provisions entitling participants to automatic grants of additional stock options in connection with the exercise of the original option.
- *Limitation on Re-use of Shares:* Shares that are delivered to, or withheld by, the company under an award may not be reissued under the 2013 Plan. Shares may be delivered or withheld in connection with the exercise of stock options or the payment of required withholding taxes.
- *Independent Committee:* As it relates to our employees, the 2013 Plan is administered by the MDCC, which consists of “outside directors” within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code, “non-employee directors” within the meaning of Rule 16b-3 of the Exchange Act and “independent directors” as defined by NASDAQ.

## Existing Plans

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As of March 27, 2017, options to purchase (i) an aggregate of 8,299,123 shares having a weighted-average exercise price of \$98.26 per share and a weighted-average term before expiration of 8.51 years were outstanding under our 2013 Plan, and (ii) an aggregate of 5,568,119 shares having a weighted-average exercise price of \$58.49 per share and a weighted-average term before expiration of 5.18 years were outstanding under our Amended and Restated 2006 Stock and Option Plan, or 2006 Plan. Also on March 27, 2017, there were outstanding an aggregate of 4,023,798 unvested shares of restricted stock and restricted stock units granted under our 2013 Plan and 361,478 unvested shares of restricted stock and restricted stock units granted under our 2006 Plan.

We may grant additional awards under our 2013 Plan. We are not able to grant additional awards under our 2006 Plan. As of March 27, 2017, there were 5,524,353 shares remaining available for award under our 2013 Plan. In addition, any shares of common stock subject to awards outstanding under the 2006 Plan which expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right, will become available for issuance under the 2013 Plan.

## Submission of 2013 Plan

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We are submitting the amendment to our 2013 Plan to our shareholders as required under applicable rules of Nasdaq and to ensure (i) favorable federal income tax treatment under Section 422 of the Code, for any grants of incentive stock options that we may make under our 2013 Plan and (ii) continued eligibility under Rule 162(m) of the Code to receive a federal income tax deduction with respect to compensation earned upon exercise of options under our 2013 Plan.

## Summary of the Amended and Restated 2013 Stock and Option Plan

A summary of the principal features of our 2013 Plan is set forth below. A copy of our 2013 Plan, as amended and restated and in the form that would become effective upon shareholder approval of this proposal, is attached to this proxy statement as Appendix C.

## Administration and Eligibility for Participation

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The 2013 Plan is administered by our board of directors or any committee to which it delegates all or a part of its administrative responsibilities under the 2013 Plan. Our board has delegated the administration of the 2013 Plan to the MDCC. Subject to the provisions of the 2013 Plan, our board, or an authorized committee of our board, determines the persons to whom awards under the 2013 Plan will be granted, the number of shares to be covered by each award, the exercise price per share and the manner of exercise, the terms and

conditions upon which awards are granted, whether to accelerate the vesting or extend the date of exercise of any installment of any award and how to interpret the provisions of the 2013 Plan. Awards may be granted under the 2013 Plan to our employees, including officers and directors who are employees, and to our consultants, advisors and non-employee directors. As of March 31, 2017, we and our subsidiaries had approximately 2,153 employees and eight non-employee directors eligible to participate in the 2013 Plan. The number of consultants and advisors eligible for awards under our 2013 Plan varies from time to time. No participant may be granted awards in any calendar year for more than 1,000,000 shares, subject to adjustment for stock splits and similar recapitalizations.

## Description of Awards

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The 2013 Plan provides for the award of stock options, stock grants, and other stock-based awards. Any restricted stock grants, restricted stock units or other awards granted under the 2013 Plan at a purchase price less than 100% of the fair market value of a share of our common stock on the date of grant will count against the number of shares authorized for issuance under the 2013 Plan at a rate of 1.66 shares for each share granted. Shares of common stock reserved for awards granted under the 2013 Plan that lapse or are canceled or forfeited are added back to the share reserve available for future awards with restricted stock grants, restricted stock units or other awards granted under the 2013 Plan at a purchase price less than 100% of the fair market value of a share of our common stock on the date of grant added back to the share reserve at a rate of 1.66 shares for each share that lapses or is canceled or forfeited. Shares of common stock issued pursuant to restricted stock agreements and restricted stock unit awards may be purchased by employees for nominal value. If we were to permit shares of common stock to be delivered to us to pay the exercise price of a stock option or to be withheld to fund the payment of taxes, those shares would not be added back to the share reserve available for future awards. No option or stock appreciation right may be granted with a term exceeding ten years from the date of grant.

### Stock Options

Stock options provide award recipients with the right, subject to the terms and conditions that are specified in connection with the option grant, to purchase a specified number of shares of our common stock at a specified exercise price. Stock options granted under the 2013 Plan may be awarded as either non-qualified stock options or as incentive stock options within the meaning of Section 422 of the Code, referred to as ISOs, however only employees may receive ISOs. The maximum value of shares of common stock—determined at the time of grant—that may be subject to ISOs that become exercisable by an employee in any one year is limited to \$100,000 and the maximum number of shares that may be issued under the 2013 plan in satisfaction of ISOs is 27.8 million shares. Since 2003, we have only granted non-qualified stock options under our equity plans.

Stock options granted under the 2013 Plan may not be granted with an exercise price that is less than the fair market value of our common stock on the date of grant, which is defined under the 2013 Plan as the average of the highest and lowest quoted selling prices on such date. ISOs may not be granted with an exercise price that is less than 110% of fair market value in the case of employees or officers holding 10% or more of our voting stock. ISOs granted to an employee or officer holding 10% or more of our voting stock must expire not more than five years from the date of grant.

Stock options granted under the 2013 Plan can only be exercised by the optionholder and are not transferable except by the laws of descent and distribution or pursuant to domestic relations orders or Title I of the Employee Retirement Income Security Act or as otherwise determined by the MDCC, provided such transfer is not for value.

The 2013 Plan provides for stock option grants to non-employee directors under our director compensation program. In addition to any other stock rights as may be determined by our board of directors each non-employee director serving in office on June 1 of any year is granted, pursuant to our equity plans, a fully vested non-qualified option to purchase a specified number of shares determined from time to time by our board.

The 2013 Plan permits the MDCC to determine the manner of payment of the exercise price of options. Such methods include payment by cash or check, or, at the discretion of the MDCC, by means of a broker assisted “cashless exercise,” delivery to us of shares of our common stock, any combination of such methods or any other lawful means approved by the MDCC, other than delivery of a promissory note.

### Stock Grants

A stock grant is an award of shares of common stock. Stock grants may be issued subject to restrictions on transfer and vesting requirements, as determined by the board or an authorized committee of the board. Vesting requirements may take the form of our lapsing right to repurchase the stock from the award recipient, based on either continued employment for specified time periods or on the attainment of specified business performance goals set by our board or the committee of our board. Subject to the transfer restrictions and our repurchase rights, if any, the grantee will have all rights with respect to unvested shares of common stock issued under a stock grant as are possessed by our other shareholders, including all voting and dividend rights, provided that dividends, if any, with respect to unvested shares shall accrue and be payable only upon the vesting of such shares.

### Stock-Based Awards

The 2013 Plan provides that the MDCC may grant other stock-based awards, including restricted stock units, share grants based upon specified conditions, the grant of securities convertible into shares, or the grant of stock appreciation rights or phantom stock awards, in each case upon terms and conditions established by the MDCC.

### Performance Awards

Under the 2013 Plan, we will have the discretionary authority to structure one or more awards so that the shares of common stock subject to those particular awards will not vest unless certain pre-established objective performance goals are achieved, in order to qualify such awards as performance-based compensation that will not be subject to the \$1,000,000 limitation imposed by Section 162(m)

of the Code on the income tax deductibility of the compensation paid to specified executive officers. Such objective goals may be based on one or more of the following criteria: (i) revenue targets or revenue growth; (ii) achievement of specified milestones in the discovery, development or regulatory approval of one or more of our drug candidates; (iii) achievement of specified milestones in the commercialization of one or more of our products; (iv) achievement of specified milestones in the manufacturing of one or more of our products; (v) cost reduction or other expense control targets; (vi) personal management objectives; (vii) stock price (including, but not limited to, growth measures); (viii) total shareholder return; (ix) income per share; (x) operating efficiency measures; (xi) operating margin; (xii) gross margin; (xiii) return measures (including, but not limited to, return on assets, capital, equity or sales); (xiv) net or total revenue levels; (xv) productivity ratios; (xvi) operating income; (xvii) net operating profit; (xviii) net earnings or net income (before or after taxes); (xix) cash flow (including, but not limited to, operating cash flow, free cash flow and cash flow return on capital); (xx) earnings or operating income before interest, taxes, depreciation, amortization and/or stock-based compensation expense; (xxi) mergers, acquisitions or divestitures objectives; (xxii) market share; (xxiii) customer satisfaction; (xxiv) working capital targets; (xxv) budget objectives and (xxvi) achievement of other balance sheet or statements of operations objectives.

Each objective performance measure that is a financial measure may be determined pursuant to generally accepted accounting principles (GAAP) or on a non-GAAP basis. Such objective performance measures may reflect absolute entity or business unit performance or a relative comparison to the performance of a peer group of entities, an index or indices or other external measure of the selected performance criteria, and may be absolute in their terms or measured against or in relationship to other companies comparably, similarly or otherwise situated. The objective performance measures and any targets with respect thereto need not be based on an increase, a positive or improved result or the avoidance of loss. Such performance measures: (1) may vary by participant and may be different for different awards; (2) may be particular to a participant or the department, branch, line of business, subsidiary or other unit in which the participant works and may cover such performance period as may be specified by us; and (3) shall be set within the time period prescribed by, and shall otherwise comply with the requirements of, Section 162(m) of the Code.

We may specify that such performance measures shall be adjusted to exclude or provide for appropriate adjustment for one or more of the following items: (A) asset impairments or write-downs; (B) litigation and governmental investigation expenses and judgments, verdicts or claim settlements; (C) the effect of changes in tax law, accounting principles or other laws, regulations or provisions affecting reported results; (D) the effect of exchange rates for non-US dollar denominated net sales or goals based on operating profit, earnings or income; (E) accruals for reorganization and restructuring programs; (F) any non-GAAP adjustments as described in our earnings releases or in the management's discussion and analysis of financial condition and results of operations appearing in our periodic reports; (G) items of income, gain, loss or expense attributable to the operations of any business acquired by us, any parent or subsidiary or of any joint venture established by us or any parent or subsidiary; (H) costs and expenses incurred in connection with mergers and acquisitions; (I) items of income, gain, loss or expense attributable to one or more business operations divested by us, or any parent or subsidiary or the gain or loss realized upon the sale of any such divested business or the assets thereof; or (J) the effect of any change in the outstanding shares of common stock effected by reason of a stock split, stock dividend, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change or any distributions to our shareholders other than regular cash dividends.

Notwithstanding any provision of the 2013 Plan, with respect to any award that is intended to qualify as performance-based compensation, we may adjust downwards, but not upwards, the number of shares payable pursuant to such award, and we may not waive the achievement of the applicable performance measures except in the case of the death or disability of the participant or a change in control of our company or as otherwise provided by the MDCC.

We shall have the power to impose such other restrictions on performance awards as we may deem necessary or appropriate to ensure that such awards satisfy all requirements for performance-based compensation.

## Adjustments in the Event of Stock Dividends, Stock Splits, Recapitalizations or Reorganizations

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The number of shares subject to stock rights and other terms applicable to such rights will be equitably adjusted if we issue a stock dividend, or in the event of a stock split, recapitalization or reorganization. In addition, in the event of certain consolidations or acquisitions or a sale of substantially all of our assets, either (i) the MDCC or the entity assuming our obligations under the 2013 Plan shall make appropriate provision for the continuation of all outstanding stock rights under the 2013 Plan or grant replacement stock rights on an equitable basis as determined by the MDCC or the relevant entity, or (ii) if there is no assumption or replacement, the vesting of all outstanding and unvested stock rights under the 2013 Plan will be accelerated and such stock rights will become fully exercisable immediately prior to such consolidation, acquisition or sale.

## Effective Date, Amendment and Expiration

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The 2013 Plan became effective on May 8, 2013 and was previously amended and restated effective as of June 4, 2015. The amendment and restatement of our 2013 Plan will be effective, subject to shareholder approval, on June 8, 2017. The 2013 Plan will, subject to shareholder approval, terminate on April 12, 2027. Our board of directors may terminate or amend the 2013 Plan at any time, subject to shareholder approval under certain circumstances as provided in the 2013 Plan. No amendment or termination of the 2013 Plan will



adversely and materially affect the rights provided in any award made under the 2013 Plan prior to the plan amendment or termination. Neither our board nor the administrator has the authority to reduce the exercise price of any stock option after the date of grant, except in the case of an equitable adjustment required under the 2013 Plan. No award may be made under the 2013 Plan after the plan expiration date. Awards made prior to expiration of the 2013 Plan may extend beyond the plan expiration date.

## U.S. Federal Income Tax Consequences

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The discussion of federal income tax consequences that follows is based on an analysis of the Code as currently in effect, existing law, judicial decisions and administrative regulations and rulings, all of which are subject to change, and is applicable to optionees who are U.S. taxpayers.

### Non-Qualified Options

Options that are designated as non-qualified options are not intended to qualify for treatment under Section 422 of the Code. Options otherwise qualifying as ISOs, to the extent the aggregate fair market value of shares with respect to which such options are first exercisable by an individual in any calendar year exceeds \$100,000, also will be treated as options that are not ISOs.

A non-qualified option ordinarily will not result in income to the optionee or a deduction for us for tax purposes at the time of grant. Instead, the optionee will recognize compensation income at the time of exercise of a non-qualified option in an amount equal to the excess of the fair market value of the shares at the time of exercise over the option exercise price. Any compensation income may be subject to withholding taxes, and a deduction may then be allowable to us in an amount equal to the optionee's compensation income.

An optionee's initial basis in shares so acquired will be the amount paid on exercise of the non-qualified option plus the amount of any corresponding compensation income. Any gain or loss as a result of a subsequent disposition of the shares so acquired will be capital gain or loss.

### Incentive Stock Options

ISOs are intended to qualify for treatment under Section 422 of the Code. An ISO does not result in taxable income to the optionee or a deduction for us at the time it is granted or exercised, provided that the optionee does not dispose of the shares acquired pursuant to the option either within two years after the date of grant of the option or within one year after the shares are issued, referred to as the ISO holding period. However, the difference between the fair market value of the shares on the date of exercise and the option exercise price will be an item of tax preference that is included in alternative minimum taxable income. Upon disposition of the shares after the expiration of the ISO holding period, the optionee generally will recognize long-term capital gain or loss based on the difference between the disposition proceeds and the option exercise price paid for the shares. If the shares are disposed of prior to the expiration of the ISO holding period, the optionee generally will recognize taxable compensation, and we will have a corresponding deduction, in the year of the disposition, equal to the excess of the fair market value of the shares on the date of exercise of the option over the option exercise price. Any additional gain realized on the disposition normally will constitute capital gain. If the amount realized upon such a disqualifying disposition is less than fair market value of the shares on the date of exercise, the amount of compensation income will be limited to the excess of the amount realized over the optionee's adjusted basis in the shares.

### Stock Grants

With respect to stock grants that result in the issuance of shares that are either not restricted as to transferability or not subject to a substantial risk of forfeiture, the grantee must generally recognize ordinary income equal to the fair market value of shares received. Thus, deferral of the time of issuance generally will result in the deferral of the time the grantee will be liable for income taxes with respect to such issuance. We generally will be entitled to a deduction in an amount equal to the ordinary income recognized by the grantee.

With respect to stock grants involving the issuance of shares that are restricted as to transferability and subject to a substantial risk of forfeiture, the grantee generally must recognize ordinary income equal to the fair market value of the shares received at the time the shares become transferable or are not subject to a substantial risk of forfeiture, whichever occurs earlier. A grantee may elect to be taxed at the time of receipt of shares rather than upon lapse of restrictions on transferability or substantial risk of forfeiture, but if the grantee subsequently forfeits such shares, the grantee would not be entitled to any tax deduction, including as a capital loss, for the value of the shares on which the grantee previously paid tax. The grantee must file any such election with the Internal Revenue Service within 30 days of the receipt of the shares. We generally will be entitled to a deduction in an amount equal to the ordinary income recognized by the grantee.

The granting of awards under the 2013 Plan is discretionary and we cannot now determine the number or type of awards to be granted in the future to any particular person or group. For further information on awards to non-employee directors, see the section "Non-Employee Director Compensation Program" beginning on page 22 of this proxy statement.

The following table sets forth, as to our named executive officers and the other individuals and groups indicated, the number of shares of our common stock subject to option grants made under the 2013 Plan from May 8, 2013 through March 27, 2017.

Name	Position	Number of Shares Underlying Options Granted
<b>Named Executive Officers</b>		
Jeffrey M. Leiden	Chairman, President & Chief Executive Officer	743,326
Ian F. Smith	EVP & Chief Operating Officer and CFO	235,547
David Altshuler	EVP & Chief Scientific Officer	120,013
Stuart A. Arbuckle	EVP & Chief Commercial Officer	229,334
Michael Parini	EVP & Chief Legal and Administrative Officer	139,278
Amit Sachdev	EVP & Chief Regulatory Officer	212,047
<b>All current executive officers as a group (8 persons)</b>		<b>1,961,326</b>
<b>Director Nominees</b>		
Margaret McGlynn		47,073
William Young		77,073
Alan Garber		—
<b>All non-employee board members, including nominees, as a group (10 persons)</b>		<b>406,584</b>
<b>All employees, including current officers who are not executive officers, as a group</b>		<b>7,802,655</b>

On April 5, 2017, the last reported sale price of our common stock on NASDAQ was \$114.11 per share.

Our board of directors recommends a vote **FOR** the approval of the amendment and restatement of our 2013 stock and option plan, that, among other things, increases the number of shares authorized for issuance under this plan by 6.75 million shares. The affirmative vote by the holders of a majority of the votes cast in person or by proxy on this matter is required for the approval of this proposal.

## Equity Compensation Plan Information

As of March 27, 2017, there were 5,524,353 shares remaining available for award under our 2013 Plan. Under our 2013 Plan, all awards may be granted as full value awards but count as 1.66 shares for each full value share awarded.

As of March 27, 2017, under our equity plans:

- Stock options covering 13,867,242 shares of our common stock, with a weighted average exercise price of \$82.29 and a weighted average remaining term of 7.17 years, were outstanding; and
- unvested restricted stock awards or units covering 4,385,276 shares of our common stock were outstanding.

The following table provides aggregate information with respect to all of our equity compensation plans in effect as of December 31, 2016. We are required under applicable SEC rules to disclose in this table the number of shares remaining available for issuance under our equity plans as of December 31, 2016. Accordingly, the figures in the table below do not reflect the equity grants made to our employees under our 2013 Stock and Option Plan, or 2013 Plan, since December 31, 2016.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options	Weighted-Average Exercise Price of Outstanding Options	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in first column)
Equity Compensation Plans Approved by Shareholders <sup>(1)</sup>	12,641,953	\$ 81.41	10,071,355
Equity Compensation Plans Not Approved by Shareholders	—	—	—
<b>TOTAL</b>	<b>12,641,953</b>		<b>10,071,355</b>

(1) These plans consist of our 2013 Plan, 2006 Stock and Option Plan and our Employee Stock Purchase Plan.

## Item 4 Ratification of the Appointment of Independent Registered Public Accounting Firm

### Engagement of Ernst & Young LLP

Our audit and finance committee is responsible for the appointment, compensation and oversight of our independent registered public accounting firm. Ernst & Young LLP has been our independent registered public accounting firm since 2005, and we believe that the selection of Ernst & Young LLP as our independent registered accounting firm for the year ending December 31, 2017 is in the best interest of our company and our shareholders.

In determining whether to reappoint our independent registered public accounting firm, our audit and finance committee undertakes an annual formal evaluation of the independent registered public accounting firm, during which it considers the quality of its discussions with and the performance of the lead audit partner, the audit team assigned to our account, the potential impact of changing our independent registered public accounting firm, the overall strength and reputation of the firm and issues pertaining to auditor independence, including fees that our independent registered public accounting firm receives for non-audit services.

Each year, our audit and finance committee, together with Ian F. Smith, our executive vice president chief operating officer and CFO, and Paul Silva, our senior vice president and controller, review the selection of our lead audit partner from Ernst & Young LLP. The review considers several factors, including sound judgment, industry knowledge and experience managing audits of complex companies with substantial international operations. After undertaking such review, we decided to retain the same lead audit partner from Ernst & Young LLP for the 2017 audit. In accordance with applicable requirements, we are required to change our lead audit partner ever five years.

Representatives of Ernst & Young LLP are expected to attend the annual meeting, will have the opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions from shareholders.

### Effect of Vote

We are not required to have shareholders ratify the selection of Ernst & Young LLP. If our shareholders do not ratify the selection, our audit and finance committee will reconsider the selection of Ernst & Young LLP for the ensuing year, but may determine that continued retention of Ernst & Young LLP is in our company's and our shareholders' best interests. Even if the appointment is ratified, the audit and finance committee, in its discretion, may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in our company's and our shareholders' best interests.

### Independent Registered Public Accounting Firm Fees

The audit and finance committee works with our management in order to negotiate appropriate fees with Ernst & Young LLP and is ultimately responsible for approving those fees. The following is a summary and description of fees for services provided by Ernst & Young LLP in 2016 and 2015.

Service	2016	2015
Audit fees	\$ 2,671,000	\$ 1,750,000
Audit-related fees	0	342,000
Tax fees	2,282,000	1,645,000
All other fees	3,000	1,995
<b>TOTAL</b>	<b>\$ 4,956,000</b>	<b>\$ 3,738,995</b>

“**Audit fees**” represented the aggregate fees for professional services rendered for the audit of our annual consolidated financial statements, and our internal controls over financial reporting, for the reviews of the consolidated financial statements included in our Form 10-Q filings for each fiscal quarter, for statutory audits of our international operations and providing consents with respect to registration statements.

“**Audit-related fees**” consisted principally of fees for accounting consultations.

“**Tax fees**” consisted of fees related to tax compliance, worldwide tax planning and tax advice. The tax fees for 2016 and 2015 consisted of:

- tax compliance and preparation fees, including the preparation of original and amended tax returns and refund claims, and tax payment planning of \$1,219,000 and \$1,113,000, respectively; and
- tax advice and planning fees of \$1,063,000 and \$532,000, respectively.

“**All other fees**” consisted of licensing fees paid to Ernst & Young LLP for access to its proprietary accounting research database.

## Audit and Finance Committee Pre-Approval Policies and Procedures

Our audit and finance committee has established a policy to pre-approve all audit and permissible non-audit services provided by our independent registered public accounting firm. Prior to the engagement of the firm for each year’s audit, management submits to our audit and finance committee for approval a description of services expected to be rendered during that year for each of the following four categories of services and a budget for those services in the aggregate.

- **Audit services** include audit work performed in the preparation of financial statements, as well as work that generally only our independent registered public accounting firm can reasonably be expected to provide, including comfort letters, statutory audits, consents and attestation services.
- **Audit-related services** are for assurance and related services that traditionally are performed by the independent registered public accounting firm, including due diligence related to mergers and acquisitions, employee benefit plan audits, special procedures required to meet certain regulatory requirements and consultation regarding financial accounting and/or reporting standards.
- **Tax services** include all services performed by the independent registered public accounting firm’s tax personnel except those services specifically related to the audit of our financial statements, and include fees in the areas of tax compliance, tax planning and tax advice.
- **All other fees** are those associated with services not captured in the three preceding categories.

Prior to the engagement of our independent registered public accounting firm, our audit and finance committee pre-approves these services by category of service. The fees are budgeted and our audit and finance committee requires the independent registered public accounting firm and management to report actual fees versus the budget periodically throughout the year by category of service. During the year, circumstances may arise when it may become necessary to engage the independent registered public accounting firm for additional services not contemplated in the original pre-approval. In those instances, our audit and finance committee requires that we obtain its specific pre-approval for these services.

The audit and finance committee may delegate pre-approval authority to one or more of its members. The member to whom such authority is delegated must report any pre-approval decisions to our audit and finance committee at its next scheduled meeting.

All of the services set forth above in the categories “audit-related fees,” “tax fees” and “all other fees” were pre-approved and none were approved by our audit and finance committee pursuant to Rule 2-01(c)(7)(i)(C), which relates to the approval of a *de minimis* amount of non-audit services after the fact but before completion of the audit.

Our board of directors recommends that you vote **FOR** ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the year ending december 31, 2017. The affirmative vote by the holders of a majority of the votes cast in person or by proxy on this matter is required for the approval of this proposal.

# AUDIT AND FINANCE COMMITTEE REPORT

The Audit and Finance Committee of the Board of Directors (the “Audit Committee”) of Vertex Pharmaceuticals Incorporated (the “Company”), which consists entirely of directors who meet the independence and experience requirements of the Securities and Exchange Commission and The Nasdaq Stock Market LLC, has furnished the following report:

The Audit Committee assists the Company’s Board of Directors in overseeing and monitoring the integrity of the Company’s financial reporting process, compliance with legal and regulatory requirements related to financial reporting and the quality of internal controls and external audit processes. The Audit Committee’s roles and responsibilities are set forth in a written charter, which is available on the Company’s website [www.vrtx.com](http://www.vrtx.com) under “Investors—Corporate Governance—Governance Documents.” Among its duties, the Audit Committee is responsible for recommending to the Company’s Board of Directors that the Company’s financial statements be included in the Company’s Annual Report on Form 10-K. As a basis for that recommendation, the Audit Committee engaged in the following activities. First, the Audit Committee discussed with Ernst & Young LLP (“Ernst & Young”), the Company’s independent registered public accounting firm for 2016, those matters that Ernst & Young is required to communicate to and discuss with the Audit Committee by the Public Company Accounting Oversight Board (United States) Auditing Standard No. 16, *Communications with Audit Committees*, which included information regarding the scope and results of the audit. These communications and discussions are intended to assist the Audit Committee in overseeing the financial reporting and disclosure process. Second, the Audit Committee discussed with Ernst & Young the firm’s independence, and received from Ernst & Young the written disclosures and the letter concerning independence as required by Public Company Accounting Oversight Board Ethics and Independence Rule 3526 (Communication with Audit Committees Concerning Independence). This discussion and disclosure informed the Audit Committee of Ernst & Young’s relationships with the Company and was designed to assist the Audit Committee in considering Ernst & Young’s independence. Finally, the Audit Committee reviewed and discussed, with Ernst & Young and with the Company’s management, the Company’s audited consolidated balance sheet as of December 31, 2016, and the Company’s consolidated statements of operations, comprehensive income (loss), shareholders’ equity and noncontrolling interest, and cash flows for the year ended December 31, 2016, including the notes thereto.

Management of the Company is responsible for the consolidated financial statements and reporting process, including establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)); establishing and maintaining internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f)); evaluating the effectiveness of disclosure controls and procedures; evaluating the effectiveness of internal control over financial reporting; and evaluating any change in internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, internal control over financial reporting. The independent registered public accounting firm is responsible for expressing an opinion on the conformity of these consolidated financial statements with accounting principles generally accepted in the United States, as well as expressing an opinion on the effectiveness of internal control over financial reporting.

During 2016, management tested and evaluated the Company’s system of internal control over financial reporting in response to the requirements set forth in Section 404 of the Sarbanes-Oxley Act of 2002 and related regulations. At the conclusion of the process, management provided the Audit Committee with a report on the effectiveness of the Company’s internal control over financial reporting, which the Audit Committee reviewed. The Audit Committee also reviewed the report of management contained in the Company’s Annual Report on Form 10-K for the year ended December 31, 2016 filed with the Securities and Exchange Commission, as well as Ernst & Young’s Reports of Independent Registered Public Accounting Firm included in the Company’s Annual Report on Form 10-K. The latter reports relate to Ernst & Young’s audit of (i) the consolidated financial statements and (ii) the effectiveness of internal control over financial reporting.

Based on (i) discussions with Ernst & Young concerning the audit and the consolidated financial statements, (ii) the independence discussions, (iii) discussions with the Company’s management concerning the consolidated financial statements, and (iv) such other matters deemed relevant and appropriate by the Audit Committee, the Audit Committee recommended to the Company’s Board of Directors that the consolidated financial statements be included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2016. This report is provided by the following independent directors, who comprise the Audit Committee:

**Terrence C. Kearney (Chair)**

**Yuchun Lee**

**Bruce I. Sachs**

## Item 5 Advisory Vote to Approve Named Executive Officer Compensation

Our compensation program is structured to attract, retain and motivate talented, experienced leaders and reward our executive officers for the achievement of short- and long-term strategic and operational goals while avoiding inappropriate or excessive risk-taking.

As described in the *Summary Information* beginning on page 3 of this proxy statement and *Compensation Discussion and Analysis* section beginning on page 38 of this proxy statement, based on the evolution of our business and financial profile and feedback we received from our shareholders, we adopted significant changes to our executive compensation program, and in particular, our equity compensation program that were fully implemented in 2016.

Our compensation for our named executive officers was supported by 74% of the “Say-on-Pay” advisory votes cast by our shareholders in 2016, which was a significant increase in support compared to 2015. Compensation for 2016 represents the implementation of our new program discussed and received favorably by our shareholders at our last annual meeting. Over the last several years, we have continued engaging with our shareholders regarding, among other matters, our executive compensation program and dilution caused by our broad-based equity compensation program. During these discussions, which included discussions with shareholders representing approximately 75% of our common stock in 2016, we listened to their perspectives and gained insight into how we could further align the interests of our company with the interests of our shareholders. Based in part on this feedback, we made significant changes to our equity compensation program, which have now been fully implemented, and which we believe will allow us to (i) continue to attract, retain and motivate our named executive officers and (ii) address the concerns raised by our shareholders. As a result of these changes, our named executive officer’s total equity compensation as provided in the summary compensation tables decreased by approximately 40% in 2016 under the new program as compared to our NEO’s total equity compensation in 2015 under the prior program.

Our board of directors and MDCC reviewed our compensation programs and made the following key decisions, which were implemented in 2016:

- Minor adjustments to base salaries, other than our CEO’s, primarily to align with median industry levels for our peers and to reflect increases in responsibilities.
- As a result of our accomplishments and their individual performance in 2016, our board approved annual cash bonuses at above target levels for 2016, but at significantly lower levels than those granted in 2015.
- Adoption of the value-based equity program and integration into our annual program of equity that vests solely upon achievement of rigorous performance goals.

Our executive compensation program, including our performance and the compensation earned by our named executive officers, is discussed in greater detail in the *Compensation Discussion and Analysis* section beginning on page 38 of this proxy statement. In that section, we discuss our executive compensation program and policies and explain the compensation decisions relating to our named executive officers for 2016, which resulted in significant decreases in the amounts reported in comparison to prior years. Our focus remains on maintaining the strong link between our compensation programs and our ability to continue to develop transformative medicines while delivering sustained revenues and earnings growth.

Based upon a vote of shareholders at the 2011 annual meeting of shareholders, following our board’s recommendation for an annual advisory vote to approve executive compensation, we are presenting the following proposal, which gives you as a shareholder the opportunity to endorse or not endorse our 2016 executive compensation program by voting for or against the following resolution:

*RESOLVED, that the shareholders approve, on an advisory basis, the compensation of our named executive officers, as disclosed in the Compensation Discussion and Analysis section, the Compensation and Equity Tables and the related narrative executive compensation disclosures contained in this proxy statement.*

While the vote on this resolution is advisory in nature, and therefore will not bind us to take any particular action, our MDCC and board intend to consider carefully the shareholder vote resulting from the proposal in making future decisions regarding our executive compensation program.

Our board of directors recommends that you vote **FOR** the approval of the resolution set forth above. The affirmative vote by the holders of a majority of the votes cast in person or by proxy on this matter is required for the approval of this proposal.



## Item 6 Frequency of Future Advisory Votes on our Executive Compensation Program

In this proposal, we are asking our shareholders to vote on whether future advisory votes on executive compensation, similar to proposal 5 contained in this proxy statement, should occur every year, every two years or every three years. While this say-on-pay frequency vote is advisory in nature and therefore will not bind us to adopt any particular frequency, our board intends to consider carefully the shareholder vote resulting from this proposal in determining how frequently we will hold “say-on-pay” votes.

Our board has determined that an annual advisory vote on executive compensation will allow our shareholders to provide timely, direct input on our executive compensation philosophy, policies and practices as disclosed in the proxy statement each year. In determining to recommend that shareholders vote for a frequency of once per year, our board considered how an advisory vote at this frequency might over-emphasize short-term variations in compensation and business results, particularly in our industry, where a long-term focus for our executive compensation program is required because it can take from 10-15 years to bring a product from inception through to commercialization. On balance, however, our board has determined that the advantages of receiving regular and prompt feedback from our shareholders on our executive compensation program outweigh this concern at this time.

Our board of directors recommends that you vote for **ANNUAL** shareholder advisory votes on our executive compensation program. The recommendation that receives a plurality of the votes cast in person or by proxy at the annual meeting will be adopted.

# Item 7 Shareholder Proposal Regarding Simple Majority Vote

We expect the following shareholder proposal will be presented for consideration at the 2017 annual meeting of shareholders. Our board of directors recommends a vote AGAINST the shareholder proposal for the reasons set forth following the proposal.

## THE SHAREHOLDER PROPOSAL

Kenneth Steiner, c/o John Chevedden, 2212 Nelson Avenue., No. 2015, Redondo Beach, CA 90278, who is the owner of at least 200 shares of our common stock as of December 22, 2016, has given notice that he intends to present for action at the 2017 annual meeting of shareholders the following resolution:

### Item 7 – Simple Majority Vote

**RESOLVED**, Shareholders request that our board take each step necessary so that each voting requirement in our charter and bylaws that calls for a greater than simple majority vote be eliminated, and replaced by a requirement for a majority of the votes cast for and against applicable proposals, or a simple majority in compliance with applicable laws. If necessary this means the closest standard to a majority of the votes cast for and against such proposals consistent with applicable laws.

Shareowners are willing to pay a premium for shares of companies that have excellent corporate governance. Supermajority voting requirements have been found to be one of 6 entrenching mechanisms that are negatively related to company performance according to “What Matters in Corporate Governance” by Lucien Bebchuk, Alma Cohen and Allen Ferrell of the Harvard Law School. Supermajority requirements are used to block initiatives supported by most shareowners but opposed by a status quo management.

This proposal topic won from 74% to 88% support at Weyerhaeuser, Alcoa, Waste Management, Goldman Sachs, FirstEnergy, McGraw-Hill and Macy’s. The proponents of these proposals included Ray T. Chevedden and William Steiner.

Currently a 1%-minority can frustrate the will of our 79%-shareholder majority. In other words a 1%-minority could have the power to prevent shareholders from improving our corporate governance.

Please vote to enhance shareholder value.

### Item 7 – Simple Majority Vote

## YOUR COMPANY’S RESPONSE

Our board of directors recommends a vote AGAINST the shareholder proposal requesting we take steps necessary to eliminate supermajority provisions from our Restated Articles of Organization and Amended and Restated By-Laws.

A simple majority vote requirement already applies to most corporate matters submitted to a vote of our shareholders. However, amendments to certain provisions of our Restated Articles of Organization and Amended and Restated By-Laws relating to (1) the number, election and terms of our board of directors, (2) director nominations, (3) newly created directorships and vacancies and (4) removal of directors, require a supermajority vote of our shareholders. Our board believes that the higher voting requirement in these limited circumstances serves important corporate governance objectives, including:

Broad Shareholder Consensus: Our board believes that these limited fundamental changes to corporate governance should have the support of a broad consensus of our shareholders. Our board also believes that the supermajority vote requirements protect shareholders, particularly minority shareholders, from the potentially self-interested actions of short-term investors. Without these provisions, it would be possible for a group of short-term shareholders to approve fundamental changes to corporate governance that are not in the best interests of our company and opposed by nearly half of the remaining shareholders.

Fiduciary Duty: Our board is subject to fiduciary duties under the law to act in a manner that it believes to be in the best interests of Vertex and its shareholders. Shareholders, on the other hand, do not have the same fiduciary duty as directors and may act in their own self-interests to the detriment of other shareholders. Accordingly, the supermajority voting standards are necessary to safeguard the long-term interests of our company and our shareholders.

Protection Against Certain Takeovers: Our supermajority voting provisions further protect our shareholders by encouraging persons or firms making unsolicited takeover proposals to negotiate directly with our board. We believe that our independent board is in the best position to evaluate proposed offers, to consider alternatives and to protect shareholders against abusive tactics during a takeover process, and as appropriate, to negotiate the best possible return for all shareholders. Elimination of these supermajority provisions may make it more difficult for our board to preserve and maximize value for all shareholders in the event of an unsolicited takeover bid.

Corporate Governance Practices. Our corporate governance and nominating committee regularly considers and evaluates corporate governance developments and recommends appropriate changes to our board. For example, we implemented proxy access in 2016 and our board has approved, subject to shareholder approval at the 2017 annual meeting of shareholders, amendments to our Restated Articles of Organization and Amended and Restated By-Laws that would declassify our board. Our governance policies and practices fully comply with all corporate governance standards of NASDAQ and SEC and our board believes that implementation of this proposal would adversely impact our carefully considered corporate governance practices.

For all of the above reasons our board of directors recommends that you vote **AGAINST** the shareholder advisory proposal to eliminate the supermajority provisions from our restated articles of organization and amended and restated by-laws. The affirmative vote by the holders of a majority of the votes cast in person or by proxy on this matter is required for the approval of this proposal.

## Item 8 Shareholder Proposal Regarding Lobbying

We expect the following shareholder proposal will be presented for consideration at the 2017 annual meeting of shareholders. Our board of directors recommends a vote AGAINST the shareholder proposal for the reasons set forth following the proposal.

### THE SHAREHOLDER PROPOSAL

Friends Fiduciary Corporation, an owner of at least 400 shares of our common stock as of December 14, 2016, and Benedictine Sisters of Mount St. Scholastica, the owner of 92 shares of our common stock as of December 22, 2016, has given notice that one or both of them, intend to present for action at the 2017 annual meeting of shareholders the following resolution:

**WHEREAS**, we believe in full disclosure of our company's direct and indirect lobbying activities and expenditures to assess whether Vertex's lobbying is consistent with its expressed goals and in the best interests of shareholders.

**RESOLVED**, the shareholders of Vertex Pharmaceuticals Incorporated ("Vertex") request the preparation of a report, updated annually, disclosing:

1. Company policy and procedures governing lobbying, both direct and indirect, and grassroots lobbying communications.
2. Payments by Vertex used for (a) direct or indirect lobbying or (b) grassroots lobbying communications, in each case including the amount of the payment and the recipient.
3. Vertex's membership in and payments to any tax-exempt organization that writes and endorses model legislation.
4. Description of the decision making process and oversight by management and the Board for making payments described in section 2 and 3 above.

For purposes of this proposal, a "grassroots lobbying communication" is a communication directed to the general public that (a) refers to specific legislation or regulation, (b) reflects a view on the legislation or regulation and (c) encourages the recipient of the communication to take action with respect to the legislation or regulation. "Indirect lobbying" is lobbying engaged in by a trade association or other organization of which Vertex is a member.

Both "direct and indirect lobbying" and "grassroots lobbying communications" include efforts at the local, state and federal levels.

The report shall be presented to the Audit Committee or other relevant oversight committees and posted on Vertex's website.

### SUPPORTING STATEMENT

We encourage transparency in the use of corporate funds to influence legislation and regulation, both directly and indirectly. Vertex spent \$2.52 million in 2014 and 2015 on federal lobbying (opensecrets.org). This figure does not include lobbying expenditures to influence legislation in states, where Vertex also lobbies but disclosure is uneven or absent. For example, Vertex had 101 lobbyists in 28 states in 2015 (<http://www.followthemoney.org/>). Vertex's lobbying to fight a California pricing initiative has attracted media attention ("When a Flawed Remedy to Drug Prices Looks Better Than None at All," Sacramento Bee, August 12, 2016), as has its lobbying at the national level ("Mom To Vertex On Pricey CF Drugs: 'We're Middle-Class And We're Screwed,'" Forbes, October 28, 2016).

Vertex is listed as a member of the Biotechnology Innovation Organization, which spent \$16.63 million on lobbying in 2014 and 2015. Vertex does not disclose its trade association memberships, nor payments and the portions used for lobbying. Transparent reporting would reveal whether company assets are being used for objectives contrary to Vertex's long-term interests. We are concerned that Vertex's lack of trade association lobbying disclosure, coupled with potential negative publicity for opposing drug price initiatives, presents reputational risks for Vertex.

Transparent reporting would reveal whether company assets are being used for objectives contrary to Vertex's long-term interests.

### YOUR COMPANY' RESPONSE

Our board of directors recommends a vote AGAINST the shareholder proposal to prepare a report on our policies and activities with respect to lobbying.

We engage with public policymakers, where legal and appropriate, when we believe it will serve the best interests of our company, our shareholders, employees, patients and other stakeholders. The associations and coalitions to which we belong perform many valuable functions. Lobbying is not the primary focus of these entities, but it is an element of their role, and a portion of the dues that we and other members pay to such organizations may be partially used, in their sole discretion, to engage in certain lobbying activities. We do not direct how these funds are used. Accordingly, our board believes that additional disclosures regarding payments to these trade associations would not necessarily present an accurate reflection of our positions on certain public policy issues.

Our board acknowledges the interests of shareholders in information about our participation in the political process. However, our board believes that the proposal's additional detailed reporting obligation would be duplicative of existing disclosures and that it would impose an unnecessary administrative burden and expense on the company when sufficient disclosure already exists.

For all of the above reasons our board of directors recommends that you vote **AGAINST** the shareholder proposal regarding report on lobbying activities. The affirmative vote by the holders of a majority of the votes cast in person or by proxy on this matter is required for the approval of this proposal.

# COMPENSATION DISCUSSION AND ANALYSIS

## Overview

### Letter from Management Development and Compensation Committee to Our Shareholders

#### Dear Fellow Shareholder,

The Management Development and Compensation Committee's stewardship of Vertex's compensation programs is guided by Vertex's mission of developing transformative medicines for people with serious diseases and by so doing, creating superior value for our shareholders. Toward that end, we have designed the company's compensation programs to closely align management's incentives with Vertex's strategic long- and short-term goals and with the interests of Vertex's shareholders. This alignment has contributed to Vertex's accomplishments over the last several years as Vertex significantly increased its revenues, built its financial strength, advanced its pipeline of medicines and potential medicines for the treatment of cystic fibrosis (CF) and made important progress on its focused research and development efforts beyond CF.

We take seriously our role in the governance of compensation programs, including how these programs should evolve as the company transforms from a development-stage organization to a profitable global commercial enterprise. We also carefully consider and incorporate the views expressed by the company's shareholders into our thinking. Based on the progression of the company and input from shareholders, in 2016 we transitioned Vertex's equity program from a share-based program (that provided for annual equity grants based on specific numbers of shares) to a value-based approach (that provides for annual equity grants based on specific dollar values). This transition is for the first time reflected in the "Summary Compensation Table" included in this proxy statement. As part of this transition, we made modifications to the equity program consistent with market practices for companies at Vertex's stage of development, including decreasing our reliance on stock options and implementing performance stock units (which utilize a balance of financial and non-financial goals tied to the execution of the company's strategic objectives) to further strengthen the link between pay and performance. We believe that many of the enhancements to the company's equity program are consistent with the feedback from the company's shareholders, and we plan to continue to engage in an active dialogue with these important constituents.

In 2016, Vertex had a good year positioning itself for future growth, but faced certain challenges, including not achieving ORKAMBI net product revenue guidance for 2016 despite growing our ORKAMBI net product revenues by more than 70%. As a result, our executives received lower cash bonuses for 2016 performance than they had received for 2015, a year in which Vertex's performance was exceptional. In addition, our executives received below target payouts on the performance stock unit awards granted in early 2016 and tied to Vertex CF product revenues. We believe that these outcomes are aligned with our commitment to linking pay to performance. Looking ahead, we will continue to focus on maintaining the strong link between Vertex's compensation programs and its long- and short-term strategic objectives. Central to these objectives is our ability to continue to develop transformative medicines while delivering sustained revenues and earnings growth.

Sincerely,

**Bruce I. Sachs** (*Chair*)

**Terrence C. Kearney**

**Elaine S. Ullian**

**William D. Young**

This section discusses the principles underlying our policies and decisions with respect to the compensation of our “named executive officers” and all material factors we believe are relevant to an analysis of these policies and decisions. Our named executive officers, or NEOs, for 2016 were:

<b>Name</b>	<b>Position</b>
Dr. Jeffrey M. Leiden	Chairman, Chief Executive Officer and President
Ian F. Smith	Executive Vice President and Chief Operating Officer and Chief Financial Officer
Dr. David M. Altshuler	Executive Vice President, Global Research and Chief Scientific Officer
Stuart A. Arbuckle	Executive Vice President and Chief Commercial Officer
Michael Parini	Executive Vice President and Chief Legal and Administrative Officer
Amit Sachdev	Executive Vice President and Chief Regulatory Officer and Chief of Staff to the CEO

As will be discussed throughout this section of the proxy statement, in 2016 we implemented our revised equity compensation program, which reflects the evolution of our business and financial profile and feedback we received from our shareholders.

## Performance-based Executive Compensation Program

Our compensation program is designed to attract, retain and motivate talented and experienced individuals across all areas of our business and to align the interests of our executive officers with the interests of our shareholders as we seek to create value through the discovery, development and commercialization of transformative medicines. Our MDCC seeks to achieve this objective through a program consisting of the following principal components:

<b>Component</b>	<b>Description</b>
<b>Salary</b>	Evaluated and adjusted, as appropriate, each year based upon a detailed market assessment as well as each executive’s responsibilities and contributions.
<b>Annual Bonus</b>	Determined each year based on both individual and company performance measured on achievement against operating and financial goals approved by the committee at the beginning of each year, as well as performance-based and values-based evaluations of individual performance.
<b>Equity Compensation</b>	Aligns the incentives of our executive officers with shareholder interests and rewards the creation of sustained long-term shareholder value by implementing a value-based program, reducing reliance on stock options and introducing performance-based restricted stock unit awards.

## Executive Summary

Over the last several years, we have met or exceeded most of our goals, significantly increasing our revenues and establishing a strong financial profile, building on our leadership position in the treatment of cystic fibrosis, or CF, bolstering our research capabilities and executing on business development transactions that support our business strategy. 2016 was an important year for Vertex and positioned us well for future success as we succeeded in reaching several critical milestones:

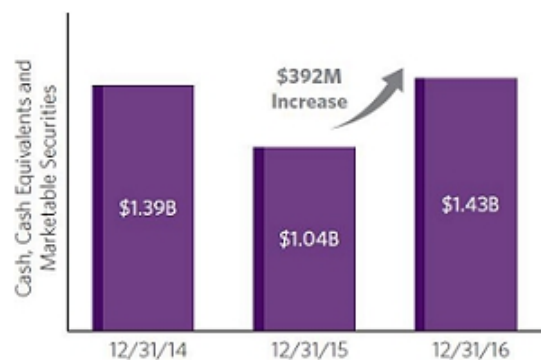
### Strengthened our Financial Position

- Increased CF net product revenues to \$1.68 million in 2016, an increase of 71% compared to 2015 (and 263% compared to 2014), with additional increases in CF net product revenues expected in 2017
- Exceeded guidance for KALYDECO net product revenues (\$703 million actual vs. guidance of \$670 million to \$690 million)
- However, we did not achieve our ORKAMBI net product revenue guidance for 2016 (\$980 million actual compared to guidance of \$1.0 billion to \$1.1 billion)
- Maintained financial discipline and managed our operating expenses to within guidance
- Achieved first full year of Non-GAAP profitability since 2012
- Increased our cash, cash equivalents and marketable securities to greater than \$1.4 billion at December 31, 2016

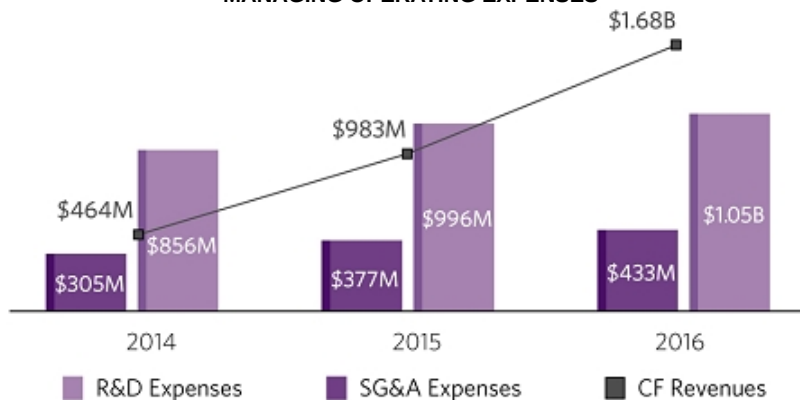
**INCREASING CF NET PRODUCT REVENUES**



**INCREASING FINANCIAL STRENGTH AND GENERATING SIGNIFICANT POSITIVE CASH FLOWS**

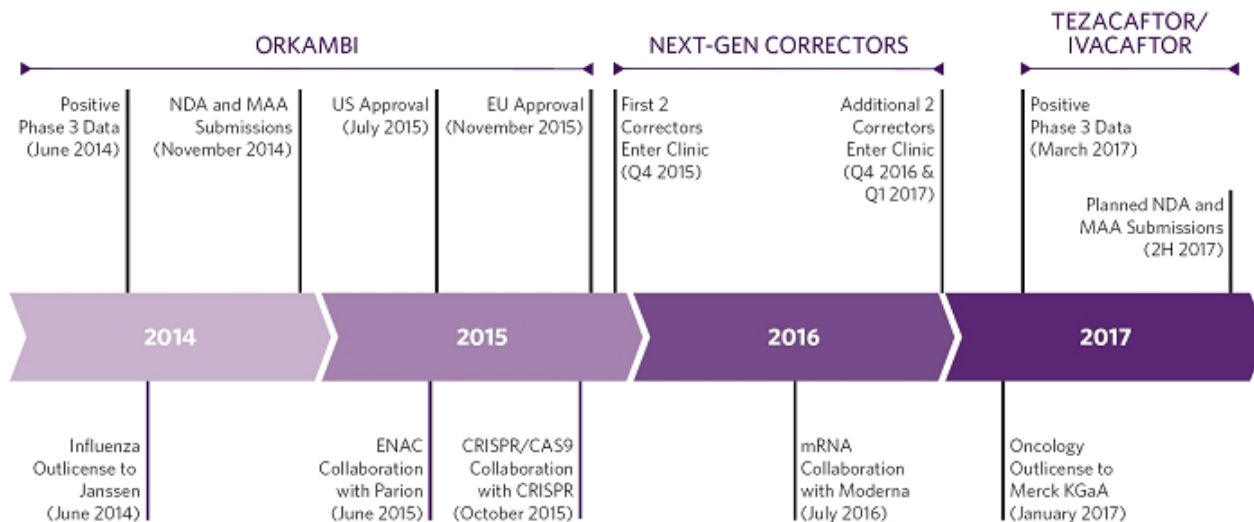


**MANAGING OPERATING EXPENSES**





**CLINICAL MILESTONES AND STRATEGIC EXECUTION**



**Advanced our CF Pipeline**

We advanced our CF development pipeline to help us reach our goal of developing treatments for all CF patients, including:

- Advanced several Phase 3 clinical trials evaluating tezacaftor in combination with ivacaftor. In the first quarter of 2017, we reported positive results from 2 of these pivotal trials positioning us to seek approval for this dual-combination regimen in the second half of 2017 in both the United States and Europe and creating significant shareholder value.
- Initiated Phase 2 development of VX-152 and VX-440, next-generation correctors, which we are developing in triple-combination regimens that include ivacaftor and tezacaftor for 80%-90% of all patients with CF.
- Initiated clinical development of VX-659 and VX-445, two additional next-generation correctors that are being developed in triple-combination regimens.
- Expanded U.S. label for ORKAMBI to include patients 6-11 years of age who are homozygous for the F508del mutation in their CFTR gene.



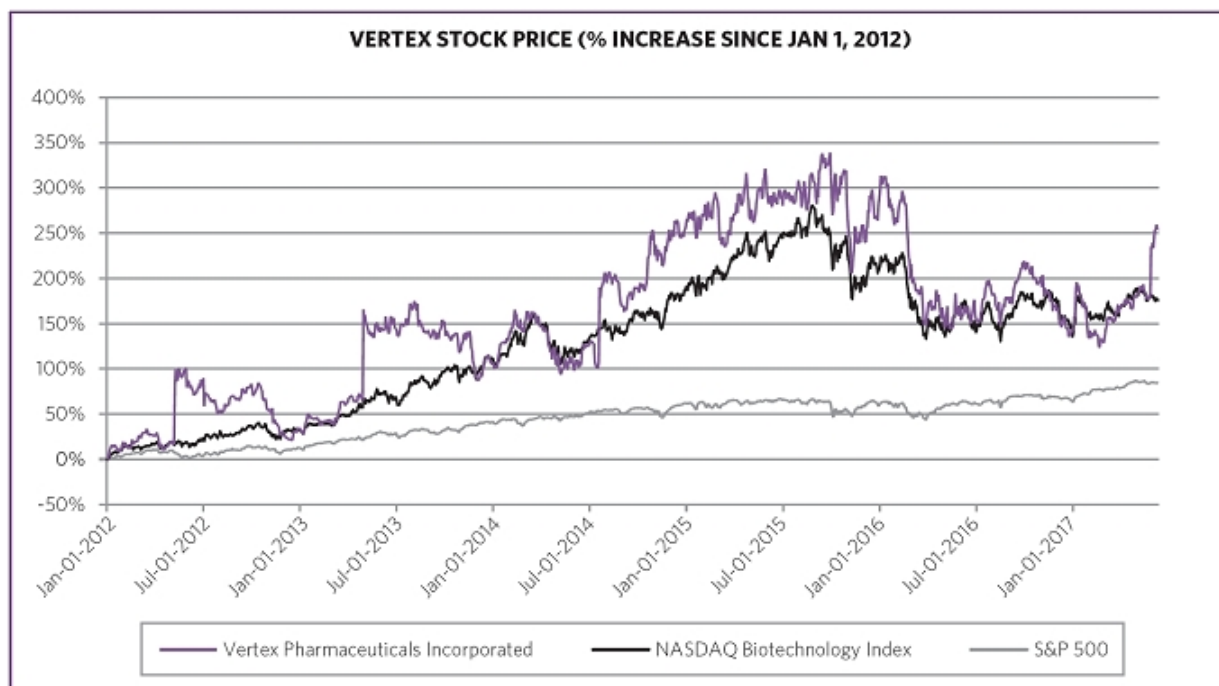
**Improved Research Capabilities and Strategic Execution Beyond CF**

- Augmented our strength in identification of small molecule drugs by focusing our research programs on validated targets addressing the underlying cause of disease and utilizing lab assays designed to predict clinical efficacy. These programs include adrenoleukodystrophy, alpha-1 antitrypsin disease, polycystic kidney disease and sickle cell disease.
- Incorporated innovative therapeutic approaches including advancing our collaboration with CRISPR Therapeutics AG in the area of gene editing and establishing a collaboration with Moderna Therapeutics, Inc. for mRNA therapies.
- Successfully outlicensed our oncology programs for \$230 million upfront and potential future royalties to Merck KGaA, Darmstadt, Germany in a transaction that allows us to focus our internal development resources, while providing for the continued development of these promising programs.
- Obtained the first proof-of-concept data for a first in class novel mechanism (NaV 1.8 inhibitors) with VX-150, which we are developing as a potential treatment for pain.

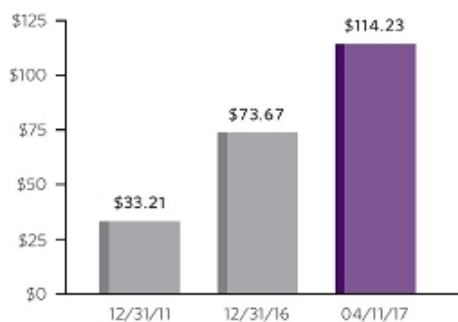
These accomplishments have positioned us for future growth as we seek to develop additional transformative medicines for people with serious diseases.

## Stock Price and Long-Term Value Creation

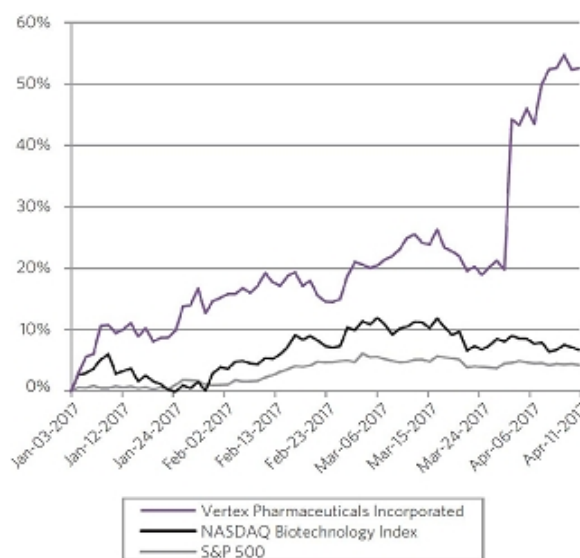
We are focused on building value over the long term in an industry that is characterized by volatility of stock prices for companies in our sector. Despite this volatility, the success of our executive team in executing our focused strategy has created significant shareholder returns over the last several years. While we experienced volatility in our stock price in 2016, we believe this was reflective of volatility across the entire biotechnology sector -- generated in part by political uncertainty in the United States and in Europe -- as well as certain challenges we faced in 2016 with respect to ORKAMBI net product revenues. The following charts show the long-term value creation as reflected in the increase in our stock price that has occurred under Dr. Leiden and his management team over the last five years, both through the end of 2016 and through April 11, 2017. In addition, we have included a chart with our stock price performance during 2017 through April 11, 2017.



**STOCK PRICE PER SHARE**



**VERTEX STOCK PRICE (% INCREASE SINCE JAN 1, 2017)**



## Adoption of New “Value-based” Equity Compensation Program

As discussed in more detail below, in response to the evolution of our business and financial profile as well as to the feedback we received during our shareholder engagement efforts, we adopted for 2016 a new approach for granting equity and equity-based compensation to our executives, including our named executive officers. Under this program, awards of equity compensation are no longer based upon a targeted number of shares. The value-based program provides that:

- Annual awards to our executives are sized based upon a target grant-date value, which is determined based upon a holistic analysis of market data, business needs and other considerations that the MDCC deems relevant;
- The targeted values resulted in grants with fewer shares than the prior, share-based approach;
- The awards themselves are comprised of a mix of award types, and a majority of the value of the awards have performance features (e.g., performance vesting or stock option awards); and
- The size of annual equity awards also takes into consideration individual performance results as well as adherence to corporate values, including our uncompromising commitment to patients and focus on innovation.

Under the value-based program, our CEO is eligible for annual equity awards with a value between zero and \$14 million (with the actual value depending upon his performance), as compared to the 2015 grant value of \$23.3 million under the prior share-based approach. Our other named executive officers are eligible for annual equity awards with values between zero and \$4.5 million, as compared to the 2015 grant values for such officers, which ranged from \$6.6 million to \$7.5 million.

## Shareholder Feedback and Response

The following chart summarizes what we heard from our shareholders and how we responded in our revised equity compensation program.

Concerns We Heard	What We Did
Magnitude of awards resulting from our share-based equity program	Changed to a value-based equity program which reduced grant date fair-value of our CEO's equity awards by 41% in 2016
Exclusive use of time-based equity	Implemented performance-contingent restricted stock unit awards, significantly reducing our reliance on time-based stock option awards
Rigor of performance vesting terms	Implemented balanced financial and non-financial metrics with a substantial risk of forfeiture for performance-contingent restricted stock unit awards
Dilution created by compensation program	Changed to value-based program which reduced dilution; for example, the number of shares at target for our CEO decreased by approximately 44% in 2016

**In order to ensure that our compensation program is aligned with the achievement of strategic objectives and company performance, we continue to have approximately 90% of the compensation for our CEO and our other named executive officers performance-linked through annual cash bonuses, restricted unit awards and stock-option awards.**

*In reviewing the compensation information included in this proxy statement, it is important to note that the equity compensation in these tables for 2016 reflects compensation received under our current program and equity compensation for 2015 and 2014 reflects compensation received under our prior equity compensation program.*

## Key Compensation Decisions

Our focus is and continues to be maintaining the strong link between our compensation programs and our ability to continue to develop transformative medicines while delivering sustained company performance, with approximately 90% of our NEO compensation tied to performance. Retention of our talented core of executives is likewise critical, as their services have led to the transformation of the company over the last several years.

The key recent decisions that our MDCC and board of directors made are as follows:

Compensation Element	Key Recent Decisions												
<b>Base Salary</b>	<ul style="list-style-type: none"> <li>Our CEO's salary has been, and continues after the recent extension of his employment agreement to be, set at \$1.3 million. His annual salary is aligned with the median CEO pay of our Peer Group. Our board also approved minor adjustments to the base salaries for our other NEOs primarily to align with median levels for our peers and reflect increases in responsibilities.</li> </ul>												
<b>Annual Cash Bonus</b>	<ul style="list-style-type: none"> <li>As a result of our accomplishments and their individual performance in 2016, our board approved annual cash bonuses at above target levels for 2016, but at significantly lower levels than those granted in 2015.</li> </ul>												
<b>Long-Term Equity Program</b>	<ul style="list-style-type: none"> <li>Our long-term equity compensation program includes performance restricted stock unit awards, or PSUs, time-based restricted stock unit awards and option awards. In early 2016, the MDCC established financial and non-financial metrics for the PSUs, with payout earned based on achievement of these metrics. 50% of the PSUs were tied to CF net product revenues in 2016, while the remaining 50% of the PSUs are tied to specific clinical milestones over a three-year period.                             <ul style="list-style-type: none"> <li>In February 2017, the MDCC certified our CF net product revenues at below the target established at the beginning of 2016, resulting in 66.5% of the target shares for the financial-based PSUs being earned. Of note, the almost <b>35% lower than target payout on the PSU</b> was the result of our not achieving our ORKAMBI net product revenue guidance (\$980 million actual ORKAMBI net product revenues compared to guidance of \$1.0 billion to \$1.1 billion) partially offset by our exceeding KALYDECO net product revenue guidance (\$703 million actual KALYDECO net product revenues vs. guidance of \$670 million to \$690 million). As an example of the sensitivity of PSU payout to performance, the ORKAMBI shortfall represented 2016 ORKAMBI net product revenues of 2% less than the low end of our guidance.</li> </ul> <p>The following chart shows the pre-established performance goals and the actual results for the financial PSUs granted in early 2016:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Company Goal</th> <th style="text-align: center;">Threshold</th> <th style="text-align: center;">Target</th> <th style="text-align: center;">Max</th> <th style="text-align: center;">Results</th> <th style="text-align: center;">Payout</th> </tr> </thead> <tbody> <tr> <td>CF Net Product Revenues</td> <td style="text-align: center;">\$ 1.65 billion</td> <td style="text-align: center;">\$ 1.75 billion</td> <td style="text-align: center;">\$ 1.90 billion</td> <td style="text-align: center;">\$ 1.68 billion</td> <td style="text-align: center;">66.5%</td> </tr> </tbody> </table> <p>One third of the earned PSUs vested in February 2017 with the remaining shares subject to continued vesting based on continued service through February 2018 and February 2019.</p> <ul style="list-style-type: none"> <li>The MDCC intends to continue to establish rigorous performance metrics tied to critical financial and non-financial goals.</li> </ul> </li> </ul>	Company Goal	Threshold	Target	Max	Results	Payout	CF Net Product Revenues	\$ 1.65 billion	\$ 1.75 billion	\$ 1.90 billion	\$ 1.68 billion	66.5%
Company Goal	Threshold	Target	Max	Results	Payout								
CF Net Product Revenues	\$ 1.65 billion	\$ 1.75 billion	\$ 1.90 billion	\$ 1.68 billion	66.5%								

## 2016 v. 2015 Equity Levels

As a result of the changes to our equity compensation program, we have substantially decreased the value of compensation provided in the form of stock options, reduced the value of compensation delivered in the form of time-vested restricted stock, and introduced PSUs. As a result of these changes, the grant date fair-value of our NEOs' total equity compensation under the annual program decreased by approximately 40% in 2016 as compared to 2015 as set forth in the following chart, which sets forth the fair value of equity compensation received by executives who were named executive officers in both 2016 and 2015. Dr. Altshuler's equity grants in 2015 included the sign-on equity grant he received when he became an employee in January 2015.

### LTI PROGRAM CHANGE HAS RESULTED IN DECREASED EQUITY AWARD LEVELS FOR NEOs (2015 v. 2016 LTI values)



The values of equity-based awards are based on our methodology for determining the grant-date fair value, including underlying assumptions for calculating these values as set forth in Note N to our consolidated financial statements included in our 2016 Annual Report on Form 10-K.

## Dilution

Since our inception, we have compensated all eligible employees using a mix of cash and equity. The broad-based nature of our equity compensation program is an important element of our overall employee compensation program and reflects our philosophy that it is important for all of our employees to approach their jobs with a long-term commitment and perspective. Over the last several years, we have modified our equity compensation programs. These modifications are consistent with modifications other biotechnology companies have made as they matured from development-stage companies to commercial-stage companies with a strong financial profile. As a result of these changes, we granted on an absolute basis equity awards representing 35% fewer shares of common stock in 2016 as compared to 2012 and reduced our "burn rate" from 3.6% in 2012 to 2.0% in 2016.

	2012 Equity Awards	2013 Equity Awards	2014 Equity Awards	2015 Equity Awards	2016 Equity Awards	% Change 2012 v 2016
Total Shares Subject to Equity Awards	7,525,000	6,276,000	5,629,000	5,035,000	4,887,000	(35)%
Burn Rate <sup>(1)</sup>	3.6%	2.8%	2.4%	2.1%	2.0%	
Awards Canceled, Forfeited or Expired	1,644,000	2,622,000	1,628,000	1,573,000	928,000	
Net Dilution	5,881,000	3,654,000	4,001,000	3,462,000	3,959,000	
Net Burn Rate	2.8%	1.6%	1.7%	1.4%	1.6%	

(1) "Burn rate" is defined as the number of equity awards granted in a specific year divided by the basic weighted average number of shares outstanding during that year.

## Compensation Governance Practices

We continue to implement and maintain leading practices in our compensation program, shareholder outreach and related areas.

✓ Mix of cash and equity with focus on long-term performance	✓ Focus on alignment of shareholder and executive interests
✓ Risk Mitigation	✓ Independent Compensation Consultant
✓ Compensation Recoupment (Clawback) Policy	✓ Director and Officer Stock Ownership Guidelines
✓ No Hedging or Pledging	✓ No Option Repricing
✓ Policy Against Gross-ups	✓ Robust Shareholder Outreach
✓ No executive perquisites	✓ Double-trigger severance provisions

## Total Compensation and Total Realized Compensation

Total compensation for our NEOs in 2016 is set forth under the caption "Total Compensation" in the table below. To supplement this information, we have included a column entitled "Total Realized Compensation," which subtracts the grant-date fair value of equity awards granted in 2016 and substitutes the actual value realized on the exercise of stock options and the vesting of restricted stock awards during 2016.

Named Executive Officer	Salary	Annual Cash Bonus	Grant-Date Fair Equity Awards	Total Compensation	Total Realized Compensation
Jeffrey M. Leiden	\$ 1,300,000	\$ 2,246,400	\$ 13,860,473	\$ 17,419,758	\$ 5,349,769
Ian F. Smith	\$ 750,000	\$ 562,500	\$ 4,455,292	\$ 5,780,677	\$ 2,425,512
David Altshuler	\$ 561,442	\$ 500,250	\$ 3,712,772	\$ 4,787,349	\$ 1,074,577
Stuart A. Arbuckle	\$ 672,885	\$ 420,000	\$ 4,455,292	\$ 5,561,062	\$ 1,864,093
Michael Parini	\$ 517,846	\$ 499,867	\$ 6,420,772	\$ 7,730,264	\$ 1,309,492
Amit Sachdev	\$ 540,750	\$ 438,007	\$ 4,455,292	\$ 5,435,009	\$ 1,905,230

For more information regarding our NEOs' compensation as calculated under SEC rules, see the narrative and notes accompanying the *Summary Compensation Table* set forth beginning on page 64 of this proxy statement. For more information regarding the calculation of "Total Realized Compensation" see the narrative accompanying the *Total Realized Compensation Table* on page 66 of this proxy statement.



## Detailed Discussion and Analysis

### Compensation Philosophy and Compensation Decision-Making Process

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#### Compensation Philosophy

Our compensation program is designed to attract, retain and motivate talented and experienced individuals across all areas of our business and to align the interests of our executive officers with the interests of our shareholders as we seek to create value through the discovery, development and commercialization of transformative medicines. Our NEOs have had long and varied careers, and possess experiences and skills that make them extremely valuable members of our executive team and to our company as a whole. They have been instrumental in building Vertex into the company it is today, with a leadership position in the treatment of CF, an advancing CF pipeline that has been significantly broadened over the last several years, increasing revenues and an established strong financial profile all of which positions Vertex to achieve its strategic objectives.

Our MDCC and our board of directors seek to connect the achievement of our strategic objectives with our compensation program in a number of ways, including through company goals that underlie our annual cash bonuses and the performance goals which are now included in our equity awards. Our company goals involve a mix of goals relating to revenues from our current products, achievement of research and development objectives, our organizational capability and maintenance of our financial strength. These objectives are selected specifically because they are considered by our board to be objective milestones that our company must achieve if it is to maintain its movement towards significant revenue growth and sustainable profitability. Our MDCC and board expects to continue to seek to balance the use of financial metrics and research and development goals in order to motivate our executive team to increase revenues and manage operating expenses, while providing appropriate incentives for our management to continue to make appropriate investments in our business.

In determining compensation, we consider compensation paid to similar companies as reference points, but do not strictly benchmark or target compensation at any particular level. Rather, the MDCC retains flexibility to structure compensation based on good governance practices and our objectives of building our company and creating shareholder value.

#### Compensation Decision-Making Process

##### Role of MDCC and Chief Executive Officer in Setting Executive Compensation

The MDCC has responsibility for overseeing the design, development and implementation of the compensation program for our chief executive officer and other NEOs. The MDCC evaluates the performance of our chief executive officer and the performance of the other executive officers. Our chief executive officer and our human resources group, assist the MDCC in evaluating the performance of our other executive officers, including the named executive officers other than the chief executive officer. Our chief executive officer does not make any recommendations to the MDCC regarding his own compensation and does not participate in portions of MDCC meetings or meetings of the board of directors when his compensation is discussed and determined.

The members of the MDCC, each of whom is an independent director, together with the other independent directors, make final compensation decisions for the CEO's and other executive officers' compensation levels based on these assessments.

##### Role of Compensation Consultant

The MDCC (i) is directly responsible for the appointment and oversight of its compensation consultants, (ii) has the authority to determine the fees that we pay for services provided by such compensation consultants and (iii) prior to engaging any compensation consultant, considers applicable factors potentially affecting the independence of the compensation consultant, including the factors set forth in Nasdaq Marketplace Rule 5605(d)(3).

Annually, the MDCC has engaged a compensation consultant to conduct an analysis of all elements of compensation paid to our executive officers, including our NEOs, compared to similar elements paid to similarly situated executives at companies in our peer group and to provide a written report and presentation of findings at the meeting of the MDCC that occurs in July each year. In 2016, the MDCC selected Pearl Meyer to conduct and present this analysis to the MDCC. In addition, our MDCC engaged Pearl Meyer in order to assist us in making significant modifications and improvements to our compensation program that were implemented in early 2016.

Pearl Meyer only provides, and is compensated for, advice provided to us at the direction of the MDCC. The MDCC considered the following information provided to it by Pearl Meyer:

- Pearl Meyer's policies and procedures designed to prevent conflicts of interest;
- that fees paid by us to Pearl Meyer represent less than 1% of Pearl Meyer's total annual revenues;
- the absence of business and personal relationships between the compensation consultant and the MDCC or any of our executive officers; and
- that Pearl Meyer's partners, consultants and employees who provide services to the MDCC, and their immediate family members, do not own shares of our common stock.

Based on these, and other factors considered by the MDCC, the MDCC determined that Pearl Meyer's work did not raise a conflict of interest.

## Use of Peer Group Companies

In order to make judgments about elements of executive compensation on a competitive basis, the MDCC and our board of directors considers information about the compensation practices of a representative group of companies with whom we compete for executive talent, or Peer Group. We conduct a detailed analysis to select companies for this Peer Group on the basis of similarity and complexity of business model. Selecting a peer group for our company is difficult because of the limited number of companies that are at a similar stage of development and our level of revenues. As a result, we use a mix of quantitative and qualitative factors in order to establish our peers, including the following:

Factor Considered	What We Look For
Similar industry	Biotechnology or pharmaceutical industry
Importance of medicines to patients and society	Transformative medicines for serious diseases; therapeutics for unmet needs
Recognized focus on innovation	Breakthrough Therapy designations, priority review and/or other markers indicating unmet need
Global operations	Significant operations outside the U.S.
Commercial operations	Marketing and selling approved medicines
Significant R&D investment	Greater than \$700M or 50% of revenue
Number of employees	Greater than 750 employees
Market capitalization and significance to broader economy	Market cap at least ¼ our size and/or inclusion on S&P 500 or NASDAQ 100
Labor market competitor	Companies we compete with for executive talent
Companies that use Vertex as a peer	Inclusion of Vertex in proxy reported peer group

We consider revenue but it is not a factor we emphasize because we do not believe revenue adequately reflects business model similarity or complexity in the biotechnology industry. A company with similar revenues may not have global or commercial operations like we have nor may it focus on innovative therapies, but rather on generic medicines, which we believe results in a different business model requiring less research and development investment. Moreover, companies with similar revenues may not focus on innovative therapies such as those designated as Breakthrough Therapies by the FDA, a designation which can expedite the development and review of medicines that are intended to treat serious conditions where preliminary clinical evidence indicates that the medicine may demonstrate substantial improvement over available therapy. As a result, we believe the factors listed above provide a better way to assess similarity versus a reliance on the combination of revenue and industry. We also note that it is unlikely for companies to align on all the factors listed above, so we look for companies meeting a majority of the criteria although we place greater weight on companies focused on innovation and importance of medicines to patients and society as we believe these are the key drivers of our business model. We also focus on market capitalization over revenue because we believe it is a better indicator of the complexity of a company's business model in our industry. On a regular basis, we review and revise the list of companies with the goal of maintaining a group of comparators comprised of at least twelve companies.

As a result of this analysis, and on the basis of the criteria listed above, the MDCC selected the following comparator companies for 2016.

2015 Peer Company	2016 Peer Company	Reason for Change
AbbVie Inc.	AbbVie Inc.	
Alexion Pharmaceuticals, Inc.	Alexion Pharmaceuticals, Inc.	
Alkermes plc	Alkermes plc	
Amgen Inc.	Amgen Inc.	
Biogen Inc.	Biogen Inc.	
BioMarin Pharmaceutical Inc.	BioMarin Pharmaceutical Inc.	
Celgene Corporation	Celgene Corporation	
Endo International plc		Company profile
	Jazz Pharmaceuticals plc	Additional company that met profile
Gilead Sciences, Inc.	Gilead Sciences, Inc.	
Incyte Corporation	Incyte Corporation	
Regeneron Pharmaceuticals, Inc.	Regeneron Pharmaceuticals, Inc.	
Shire plc	Shire plc	
United Therapeutics Corporation	United Therapeutics Corporation	

This Peer Group was modified in 2016 from 2015 to include one additional company (Jazz Pharmaceuticals plc) to replace one prior peer company (Endo International plc). We believe, based on our discussions with major shareholders, that the Peer Group identified by our MDCC is consistent with our shareholders' views of our relevant peers in the biotechnology industry. In addition, the Peer Group companies have many of the business model characteristics that we seek in comparator companies as set forth in the following table.

Company Information		R&D Expense <sup>(1)</sup>		Operational Focus		Innovative and Importance of Medicines			Uses	Market Position	
Company	Industry	\$ (millions)	% of Revenue	Global	Commercial	Orphan/Unmet Clinical Need	Breakthrough Therapy Designations <sup>(2)</sup>	Innovative Drugs in Last 6 Years <sup>(3)</sup>	Vertex as Peer	Nasdaq 100	S&P 500
AbbVie	Biotech	\$ 4,366	17%	✓	✓	✓	3	3			✓
Alexion	Biotech	\$ 757	25%	✓	✓	✓	1	2	✓	✓	✓
Alkermes	Biotech	\$ 387	52%	✓	✓	✓	0	1	✓		
Amgen	Biotech	\$ 3,847	18%	✓	✓	✓	1	4		✓	✓
Biogen	Biotech	\$ 1,973	20%	✓	✓	✓	0	4	✓	✓	✓
BioMarin	Biotech	\$ 662	59%	✓	✓	✓	0	1	✓	✓	
Celgene	Biotech	\$ 4,470	40%	✓	✓	✓	0	3		✓	✓
Gilead	Biotech	\$ 4,666	15%	✓	✓	✓	4	5		✓	✓
Incyte	Biotech	\$ 595	54%		✓	✓	0	1	✓	✓	✓
Jazz	Biotech	\$ 162	11%	✓	✓	✓	0	1	✓		
Regeneron	Biotech	\$ 2,052	43%	✓	✓	✓	1	3	✓	✓	✓
Shire	Pharma	\$ 1,431	13%	✓	✓	✓	0	3		✓	
United Therapeutics	Biotech	\$ 148	9%	✓	✓	✓	0	3	✓		
Vertex	Biotech	\$ 1,062	62%	✓	✓	✓	5	3		✓	✓

(1) R&D Expense and R&D Expense as a % of Revenue reflects the trailing data for the most recent four quarters as of 12/31/2016 per the S&P Capital IQ database.

(2) Per Center for Drug Evaluation and Research (CDER) Breakthrough Therapy Approvals report which lists approvals for breakthrough therapy designated drugs.

(3) Innovative drugs in the last six years include: VIEKIRA PAK, IMBRUVICA and VENCLEXTA (AbbVie), STRENSIQ and KANUMA (Alexion), ARISTADA (Alkermes), XGEVA, PROLIA, KYPROLIS and PARSABIV (Amgen), TECFIDERA, ALPROLIX, SPINRZA and ELOCTATE (Biogen), VIMIZIM (BioMarin), POMALYST, ABRAXANE and OTEZLA (Celgene), SOVALDI, HARVONI, CAYSTON, VEMLIDY and ZYDELIG (Gilead), JAKAFI (Incyte), DEFITELIO (Jazz), PRALUENT, EYLEA and ZALTRAP (Regeneron), FIRAZYR, NATPARA and GATTEX (Shire) and REMODULIN, ORENITRAM and UNITUXIN (United Therapeutics).

We do not strictly benchmark to a particular level of compensation relative to compensation levels at the Peer Group companies, but rather make a judgment about where each executive should fall in comparison with executives with similar responsibilities at the Peer Group companies. We believe this should mitigate concerns regarding our Peer Group including companies that have significantly higher revenues than our current revenues. The MDCC looks at Peer Group information to confirm that our compensation levels are competitive with those of the Peer Group companies and consistent with our compensation philosophy. In addition, the MDCC reviews broader industry specific executive compensation surveys published by Radford, Mercer SIRS and Towers Watson, but does not make any material compensation decisions based on any particular company participants in such surveys.

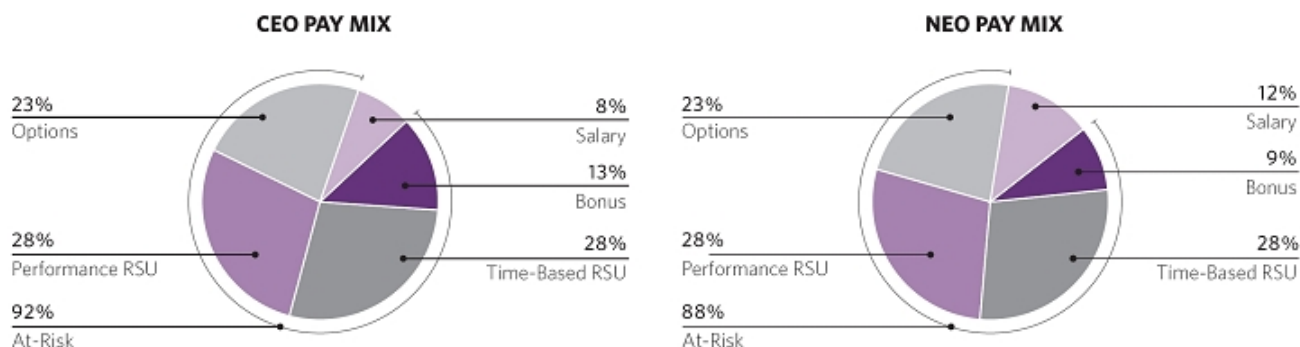
## Elements of Annual Compensation

Our practice is to target total direct compensation including base salary, annual cash incentives targets, and long-term incentive targets at market competitive levels depending upon the NEO's responsibilities, expertise and experience. Our executive compensation program uses a mix of long-term equity compensation awards in the form of performance stock options and performance restricted stock unit awards and time-based restricted stock units to incent and reward those individuals who make the greatest contribution to our company performance over time. For the NEOs, this means compensation is primarily in the form of equity and directly tied to changes in shareholder value over time.

Each year we review the balance of elements of our executive compensation program to ensure that they are appropriately designed in light of our goals to align the program with our shareholders' interests, the competitive environment and our business strategy.

## Compensation Program (Implemented in 2016)

As shown in the following charts, our new compensation program was fully implemented this year, and we have deemphasized options and introduced performance restricted stock unit awards:



The charts above represent the actual values, and exclude the compensation of Mr. Parini, who joined the company in 2016 and was not eligible for grants under our annual program in 2016.

### Performance-Linked Value-Based Program

We made significant changes to our equity program that were fully implemented in 2016 due to the evolution of our company as well as feedback we received from our engagement with shareholders. We have matured from a research and development company to a global biotechnology company. We became cash flow positive in 2016, are marketing two commercial medicines that each produce significant revenues and are the first and only medicines to treat the underlying cause of CF and have expanded our global footprint to support sales of KALYDECO and ORKAMBI. Because of these accomplishments, we believed it was the right time to modify our equity compensation program to better fit where we are in our stage of growth. As a result, we fully implemented the following changes in 2016:

- Adopted a value-based approach to granting equity awards;
- Decreased emphasis on stock options;
- Replaced performance accelerated restricted stock with performance stock units tied to a balance of financial and non-financial metrics; and
- Modified our mix of long-term incentive awards to provide balance between incentive, shareholder alignment and retention objectives of our equity awards.

Under the new value-based program we implemented in 2016, we continue to focus on performance-linked elements as follows:

Compensation Element	Performance-Link
Annual Cash Bonus	<ul style="list-style-type: none"> <li>• Annual bonus dependent on company performance factors and individual performance</li> <li>• Potential range of bonus 0% to 225% of target bonus</li> </ul>
Stock Options	<ul style="list-style-type: none"> <li>• Grant date value of options granted based on individual performance</li> <li>• Value of awards tied to potential increases in share price with no value to executive unless share price increases</li> </ul>
Performance Restricted Stock Unit Awards	<ul style="list-style-type: none"> <li>• 50% of PSUs with range of shares issued 0% to 200% of target based on one year financial performance metric (vesting annually over 3 years)</li> <li>• 50% of PSUs with range of shares issued 0% to 200% of target based on three-year non-financial metric (cliff-vesting after three years)</li> <li>• Value of awards increases or decreases based on increases or decreases in stock price</li> </ul>
Time-Based Restricted Stock Unit Awards	<ul style="list-style-type: none"> <li>• Number of shares granted based on individual performance</li> <li>• Value of awards increases or decreases based on increases or decreases in stock price</li> </ul>

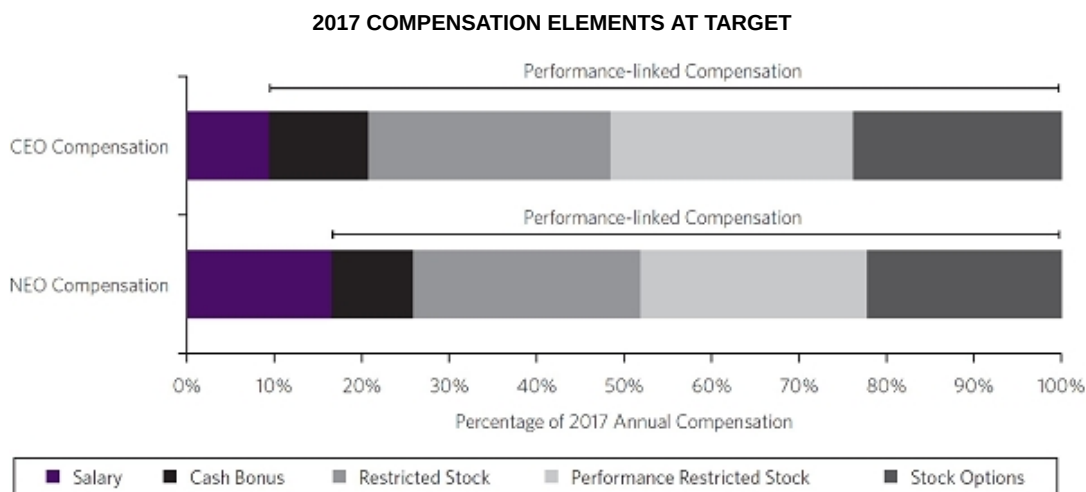
More specifically:

- **Stock Options.** Our NEOs receive 30% of their annual target equity value in the form of stock options that vest over a four-year period. This was a significant shift away from the 70% weight under the prior program and we believe this aligns better with our current stage of growth. We continue stock option awards because we believe stock options are performance-based and provide alignment with shareholders as executives are rewarded for broad corporate performance only if the stock price appreciates.
- **Performance Stock Units.** Our NEOs receive 35% of their annual target equity compensation in the form of PSUs, which we introduced in 2016. The PSUs vest, if at all, based half on financial and half on non-financial goals. The potential range of shares issuable pursuant to the performance stock unit awards range from 0% to 200% of the target shares based on financial and non-financial measures. For grants in February of 2016 and February of 2017, fifty percent of PSUs that could be earned have a one-year performance period with the amount actually earned dependent upon Vertex's CF net product revenue performance and with vesting of the earned shares in three equal installments over a three-year period. The MDCC selected a one-year performance period because of the difficulty in forecasting financial metrics at our stage of growth beyond a one-year period. The remaining 50% of PSUs that could be earned have a three-year performance period with the amount actually earned dependent upon the achievement of multiple clinical development milestones (i.e., advancement of CF and non-CF therapies in the clinic) and with the earned shares

cliff vesting at the end of the three-year performance period. The MDCC selected revenue and clinical development milestones because shareholders and analysts rely heavily on these metrics to understand the underlying condition and the performance of our business. In addition, achievement of these metrics would indicate successful execution toward our long-term strategic objectives of expanding our CF franchise and diversifying our product portfolio.

- **Time-based Stock Units.** Our NEOs receive 35% of their annual target equity compensation in the form of restricted stock units that will vest over a three-year period, subject to continued service. We believe that with a majority of the annual long-term incentive award at risk based on our stock price appreciation and successful execution of our strategic objectives, it is important to have a smaller portion of the annual award focused on retaining our key executive talent. As a result, we believe time-based restricted stock units encourage retention while also providing immediate alignment with our shareholders.

In total, approximately 90% of our CEO's 2017 compensation is performance-linked:



## Base Salary

The MDCC recommends base salaries for each of our executive officers on the basis of a market analysis, on a position-by-position basis. Annually, the MDCC reviews tables showing a comparison of each executive's prior year base salary and cash bonus opportunity, measured at the target level, to salaries and cash bonuses reported for executives with similar responsibilities at comparable companies. We do not strictly benchmark to a particular level of compensation relative to compensation levels at the Peer Group companies, but rather make a judgment about where each executive should fall in comparison with executives with similar responsibilities at the Peer Group companies, taking into account the executive's general level of experience and capability, the significance of his or her job responsibilities to the achievement of our business strategy and company goals, and general performance over time, including demonstration of the values and desirable behaviors under our core values program. On the basis of that information, including compensation at Peer Group companies, and taking into consideration the executive's base salary for the previous year, the MDCC recommends an appropriate salary for each executive officer, subject to final approval by our independent directors. Our current base salaries for our named executive officers approximate the median base salaries for counterparts at companies in our Peer Group.

In November 2016, our board of directors negotiated an extension to the term of Dr. Leiden's employment agreement, which provided that his base salary would remain the same in 2017 as 2016. In connection with Mr. Smith and Mr. Parini assuming new responsibilities as Chief Operating Officer and Chief Legal and Administrative Officer, respectively, their base salaries were increased for 2017 as compared to 2016.

Name	2015 Base Salary	2016 Base Salary	2017 Base Salary	Peer Ranking	% Change 2016 v 2017
Jeffrey M. Leiden	\$ 1,300,000	\$ 1,300,000	\$ 1,300,000	60th	0%
Ian F. Smith	\$ 750,000	\$ 750,000	\$ 850,000	60th	13%
David Altshuler	\$ 550,000	\$ 575,000	\$ 575,000	45th	0%
Stuart A. Arbuckle	\$ 650,000	\$ 700,000	\$ 700,000	50th	0%
Michael Parini	na	\$ 560,000	\$ 675,000	55th	21%
Amit Sachdev	\$ 540,750	\$ 540,750	\$ 540,750	65th	0%



## Company and Individual Ratings

Two of the principal elements of our executive compensation program - annual cash bonus and annual equity awards - are awarded in amounts determined on the basis of annual company and individual performance ratings.

### Overview of Company Performance Rating & Achievement in 2016

At the beginning of each year, our board of directors, in consultation with our CEO, establishes company-wide goals for that year. Our performance against these goals is the most important factor considered by our board in assessing our corporate performance, but our board considers additional accomplishments and may increase or decrease the performance scores. Although the directors discuss and analyze our performance as a group, each director makes his or her own judgment about specific performance factors and accomplishment of the goals in reaching a conclusion.

For 2016, the board set company goals and assigned relative weights that reflected our operational, strategic and financial objectives for the year and the importance of these goals to our long-term goals of significant revenue growth and achieving sustainable profitability. Our 2016 weighted goals and the year-end score achieved by the company and assigned by the board are set forth in the following table:

Goal(s)	Maximum Score	Actual 2016 Performance Score
<b>Marketed and Approval-Stage Products</b>	<b>50</b>	<b>26</b>
<ul style="list-style-type: none"> <li>Expand ORKAMBI net product revenues through compliant marketing practices</li> <li>Expand KALYDECO net product revenues through compliant marketing practices</li> </ul>		
<b>Pipeline Growth</b>	<b>55</b>	<b>40</b>
<ul style="list-style-type: none"> <li>Obtain key results from Phase 3 clinical trials of VX-661</li> <li>Advance next-generation CFTR correctors and initiate at least one proof-of-concept clinical trial to evaluate a triple-combination regimen</li> <li>Maintain high productivity in research and early-stage development to expand pipeline</li> <li>Execute collaborations to support and diversify the pipeline and monetize non-core pipeline assets</li> </ul>		
<b>Organizational Development and Capability</b>	<b>15</b>	<b>15</b>
<ul style="list-style-type: none"> <li>Fill critical positions with superior and diverse talent to support business growth</li> <li>Improve infrastructure to support expanding business</li> <li>Continue to ensure a strong compliance mindset and enterprise-wide risk management program</li> </ul>		
<b>Financial Strength</b>	<b>30</b>	<b>30</b>
<ul style="list-style-type: none"> <li>Manage balance sheet to sustain financial capacity for future investment</li> </ul>		
<b>Additional Factors (see page 54 of this proxy statement)</b>		<b>9</b>
<b>TOTAL</b>	<b>150</b>	<b>120</b>

Our 2016 company performance score was 120 out of a potential of 150.

Our 2017 company performance will be evaluated against the broad categories set forth above putting slightly more emphasis on Marketed & Approval Stage Products (60 points in 2017 as compared to 50 points in 2016) and Organization Development and Capability (20 points in 2017 as compared to 15 points in 2016) and less on Financial Strength (15 points in 2017 compared to 30 points in 2016). These change were made to align our annual incentive plan with our business goals for 2017.

### Detailed Discussion of Company Performance Rating Factors and Achievements

#### Goals - Marketed and Approval-Stage Products

**ORKAMBI.** ORKAMBI net product revenues increased from \$350.7 million in 2015 to \$979.6 million in 2016. However, we did not meet our U.S. or our ex-U.S. ORKAMBI goals for 2016 due primarily to lower than expected initiations and adherence in the U.S. and slower than expected uptake in Germany. Specifically, we fell \$20 million or 2% short of the low end of our ORKAMBI net product revenue guidance for 2016 (\$980 million actual compared to guidance of \$1.0 billion to \$1.1 billion).

**KALYDECO.** In 2016, we exceeded the upper end of our KALYDECO net product revenue guidance by \$13 million, or 2% (\$703 million actual vs. guidance of \$670 million to \$690 million). KALYDECO net product revenues increased by 11% from \$631.7 million in 2015 to \$703.4 million in 2016. The increase was due to additional patients being treated with KALYDECO and the maintenance of high compliance rates.

Overall, we increased CF net product revenues to \$1.68 million, an increase of 71% compared to 2015, with additional increases in CF net product revenues expected in 2017.

***For marketed and approval-stage products goals, our board assigned the company a score of 26 out of 50, due to (1) our not achieving our goals with respect to ORKAMBI net product revenues and (2) our success in expanding our KALYDECO revenues, which resulted in KALYDECO net product revenues that increased by 11%.***

## Goals - Pipeline Growth (Late and Early-Stage)

In 2016, we expanded our leadership position in the treatment of CF, achieved our research goals and executed on strategic transactions. Specifically, we:

- Advanced our CF development pipeline to help us reach our goal of developing treatments for all CF patients:
  - Advanced several Phase 3 clinical trials evaluating tezacaftor in combination with ivacaftor (we recently reported positive results from 2 of these pivotal trials positioning us to seek approval for this dual-combination regimen in the United States and Europe in the second half of 2017)
  - Initiated Phase 2 development of VX-152 and VX-440, next-generation correctors, which we are developing in triple-combination regimens that include ivacaftor and tezacaftor for 80%-90% of all patients with CF
  - Initiated clinical development of VX-659 and VX-445, two additional next-generation correctors that are being developed in triple-combination regimens
  - Initiated a Phase 2 proof-of-concept clinical trial to evaluate VX-371 with ORKAMBI
  - Obtained U.S. approval for ORKAMBI for patients age 6 to 11 who are homozygous for the F508del mutation in their CFTR gene
  - Initiated a clinical trial to evaluate KALYDECO in patients 0 to 2 years of age
- Improved our research capabilities and advanced our development programs outside of CF:
  - Augmented our strength in identification of small molecule drugs by focusing research on validated targets addressing the underlying cause of disease and utilizing lab assays designed to predict clinical efficacy
  - Incorporated innovative therapeutic approaches with a focus on nucleic acid-based therapies
  - Obtained the first proof-of-concept data for a first in class novel mechanism (NaV 1.8 inhibitors) with VX-150, which we are developing as a potential treatment for pain
- Executed on business development transactions, including:
  - Establishing a collaboration with Moderna Therapeutics, Inc. in July 2016 pursuant to which we are seeking to develop mRNA therapeutics
  - Orchestrating the successful outlicense of our four oncology programs, including VX-970 and VX-803

Partially offsetting these achievements, were challenges and/or delays we encountered with respect to the timing of enrollment of two of the four Phase 3 clinical trials of tezacaftor in combination with ivacaftor.

***On the basis of (1) the accomplishments in advancing our research and development programs and, in particular, the advancement of next-generation correctors and (2) executing our business development strategy, partially offset by delays with respect to development activities, our board assigned the company a score of 40 out of 55 for our pipeline growth goal.***

## Goals - Organizational Development and Capability

**Talent and expertise.** Strengthened our organizational capabilities by attracting, developing and retaining the key talent necessary to operate our business, including filling 23 of 26 critical positions with superior and diverse talent and initiating new leadership and management training programs.

**Systems.** Continued improvement of infrastructure to support and integrate external research efforts and to support clinical operations, including the installation of Vsmart software to support clinical development.

**Compliance.** Continued to promote effective governance, communication and training to support our company-wide compliance and risk management programs.

***To reflect the improvements to our organizational structure, processes and systems achieved in 2016, our board assigned the company a score of 15 out of 15 for our organizational development and capability goals.***

## Goals - Financial Strength

We met all of our financial strength goals in 2016. We managed our operating expenses to our guidance allowing us to strengthen our balance sheet and end 2016 with cash, cash equivalents and marketable securities of \$1.43 billion.

***As a result of our success in maintaining our financial strength by managing our operating expenses and securing a strong cash position, our board assigned the company a score of 30 out of 30 for our financial strength goals.***

## Additional Factors

In connection with determining our 2016 company rating, our board of directors made a positive nine point adjustment based on additional factors that were not anticipated in our goals, which were primarily related to our success in accelerating the development of multiple next-generation correctors (four versus two in our plan), including positive data from clinical trials evaluating VX-440 and VX-152 allowing both to advance into proof-of-concept clinical trials and the advancement of two additional next-generation correctors, VX-659 and VX-445, which are each being evaluated in Phase 1 clinical trials, and also included two additional points for exceeding the upper end of our KALYDECO net product revenue guidance by \$13.4 million.

## 2016 Individual Performance Ratings - Overview

The MDCC evaluates executives' individual performance on a "results-based, values-tempered" basis, which takes into account not only "what" was accomplished, but "how" it was accomplished. The results-based component evaluates the executive officer's performance in his or her individual role and as a leader of our company in achieving our objectives. The possible individual results-based performance ratings are "not building," "building," "strong" or "leading." The values-tempered component of the individual evaluations builds upon our company core values: "uncompromising commitment to patients;" "innovation is our lifeblood;" "fearless pursuit of excellence" and "we wins" and are based on whether the decisions made by the executives were consistent with these values and what is in the best interests of the company in the long term. Under our Values Into Practice program, we expect all employees to demonstrate our company core values in all aspects of job performance. We further expect that our executives will be stewards of our core values, and the performance ratings assigned to them incorporate our board's assessment of the strength of their leadership with respect to, and demonstration of, values-based behavior. This evaluation results in ratings of "not demonstrating," "living the values" or "exemplary demonstration." The possible individual performance ratings under this program are as set forth in the following table:

Values Evaluation	Results Evaluation			
	Not Building	Building	Strong	Leading
Exemplary Demonstration	[Not Possible]	Strong	Leading	Leading/Exemplary
Living the Values	Not Building	Building	Strong	Leading
Not Demonstrating	Not Building	Not Building	Building	[Not Possible]

The 2016 results-based rating recommendation for each NEO, other than our CEO, is the combined result of the committee members' observations and review of the executive's role in the accomplishment of the corporate goals and recommendations provided to the MDCC by our chief executive officer made on the basis of his independent assessment of each executive officer's performance. The MDCC and Dr. Leiden discussed the recommendations at length, on both an individual-by-individual basis, and on a comparative basis. Upon completion of these discussions, the MDCC finalized its recommendation for the results-based rating for each executive, taking into account Dr. Leiden's recommendations, factors considered in the discussions and the opinions of MDCC members based on the executive's contributions and the committee members' interactions with the executive. When considering the more subjective values-based rating, the MDCC also discussed Dr. Leiden's recommendations, giving Dr. Leiden's recommendations greater weight when determining the values-based rating than when determining the results-based rating, because the values-based rating is pertinent to the executive's daily interactions in carrying out his or her duties. Furthermore, the MDCC believes that, in his role as CEO, Dr. Leiden had greater visibility than the committee members into the quality of these interactions. Taking into account all of the factors raised in the discussion and the assigned individual performance rating, the MDCC assigns an individual performance factor for each NEO within the ranges set forth above. While the individual ratings are not 100% objective, we view them as critical factors indicative of management success and critical to achieving the more objective goals discussed above.

**2016 Actual Individual Ratings for Named Executive Officers**

<b>Dr. Jeffrey Leiden</b> Chairmen, President and CEO	2016 Rating:	Leading
	2017 Salary:	\$ 1,300,000
	2016 Bonus:	\$ 2,246,400
	LTI Equity Grants (Feb 2017):	\$ 12,500,000

On the basis of the MDCC's recommendation, our independent directors rated Dr. Leiden's overall performance for 2016 as "leading" with an individual performance factor of 120%. The performance rating for Dr. Leiden combined a "strong" results-based rating with an "exemplary demonstration" values-based rating. The rating derived principally from his leadership of our executive team as we executed our strategy for 2016, which included:

- The challenges faced with respect to the commercialization of ORKAMBI, partially offset by the continued over-achievement of our goals surrounding the commercialization of KALYDECO
- The advancement of our CF and non-CF pipelines, and in particular our four next-generation corrector compounds and our novel pain compound, partially offset by some delays with respect to enrollment of two of our four Phase 3 clinical trials for tezacaftor in combination with ivacaftor
- The excellent performance of our research organization in bringing forward multiple additional next-generation corrector compounds and augmenting our research capabilities in the area of nucleic acid technologies
- The execution of our business development strategy for 2016
- Significantly increasing our financial strength through increased revenues and management of our operating expenses
- Leadership in determining our corporate strategy and executing our business goals
- Coordinating, as the chair of our board, clear communication between our board and management regarding key business and strategic issues
- Exhibiting outstanding personal and leadership qualities and Vertex's core values in enabling the successful stewardship of our company over the last year

<b>Ian Smith</b> EVP, Chief Operating Officer and CFO	2016 Rating:	Leading
	2017 Salary:	\$ 850,000
	2016 Bonus:	\$ 562,500
	LTI Equity Grants (Feb 2017):	\$ 3,750,000

The MDCC recommended and the board adopted a "leading" rating for Mr. Smith based on a results-based rating of "leading" and a values-based rating of "living the values" with an individual performance factor of 125%. Mr. Smith's rating was due to his overall contributions to the execution of our strategy with a focus on performance of the finance/accounting, business development, information systems and investor relations functions. More specifically, Mr. Smith was responsible for:

- Managing operating expenses in accordance with our budget and guidance, which together with increased CF net product revenues, allowed us to generate significant cash flow in 2016 and end 2016 with cash, cash equivalents and marketable securities increasing to approximately \$1.43 billion (as compared to \$1.04 billion at the end of 2015)
- Leading our business development group, which had a very successful year, including:
  - orchestrating the successful outlicense of our oncology programs for \$230 million upfront and potential future royalties to Merck KGaA, Darmstadt, Germany in a transaction that allows us to focus our development resources, while providing for the continued development of these promising programs
  - establishing a collaboration with Moderna Therapeutics, Inc. in July 2016 pursuant to which we are seeking to develop mRNA therapeutics for the treatment of CF
- Establishing a five-year \$500 million revolving credit facility with \$300 million in potential additional capacity to replace a \$300 million term loan that would have matured in mid-2017
- Implementing infrastructure systems to support our growth, integrate external research efforts and support our clinical operations

<b>Dr. David M. Altshuler</b> EVP, Global Research and Chief Scientific Officer	2016 Rating:	Leading/Exemplary
	2017 Salary:	\$ 575,000
	2016 Bonus:	\$ 500,250
	LTI Equity Grants (Feb 2017):	\$ 4,500,000

The MDCC recommended and the board adopted an overall rating of "leading/exemplary" for Dr. Altshuler based on a results-based rating of "leading" and a values-based rating of "exemplary demonstration" with an individual performance factor of 145%. Dr. Altshuler's rating derived from his leadership of the research organization, including the following:

- Accelerating multiple additional next-generation CFTR corrector compounds into clinical development
- Implementing a research strategy that augments our strength in identification of small molecule drugs by focusing research on validated targets addressing the underlying cause of disease and utilizing lab assays designed to predict clinical efficacy
- Incorporating innovative therapeutic approaches with a focus on nucleic acid-based therapies
- Recruiting an outstanding set of senior research scientists to our global research organization

<b>Stuart A. Arbuckle</b>	2016 Rating:	Strong
EVP, Chief Commercial Officer	2017 Salary:	\$ 700,000
	2016 Bonus:	\$ 420,000
	LTI Equity Grants (Feb 2017):	\$ 3,000,000

The MDCC recommended and the board adopted an overall rating of “strong” for Mr. Arbuckle based on a results-based rating of “strong” and a values-based rating of “living the values” with an individual performance factor of 100%. Mr. Arbuckle’s rating was the result of the combination of:

- The shortfall on ORKAMBI revenues in the U.S. and in ex-U.S. markets partially offset by
- The continued commercial over-performance of KALYDECO in U.S. and ex-U.S. markets

<b>Michael Parini</b>	2016 Rating:	Leading/Exemplary
EVP, Chief Legal and Administrative Officer	2017 Salary:	\$ 675,000
	2016 Bonus:	\$ 499,867
	LTI Equity Grants (Feb 2017):	\$ 4,500,000

The MDCC recommended and the board adopted an overall rating of “leading/exemplary” for Mr. Parini based on a results-based rating of “leading” and a values-based rating of “exemplary demonstration” with an individual performance factor of 150%. Mr. Parini’s rating derived from:

- Leading the legal and compliance organization as it supported the achievement of company-wide goals
- Leading a successful reorganization of the legal and compliance department
- Recruiting a number of outstanding senior and mid-level lawyers to the legal department
- Enhancing our global compliance organization, particularly ex-U.S.
- Successfully resolving several legal cases on terms favorable to the company

<b>Amit Sachdev</b>	2016 Rating:	Leading
EVP, Chief Regulatory Officer and Chief of Staff to the CEO	2017 Salary:	\$ 540,750
	2016 Bonus:	\$ 438,007
	LTI Equity Grants (Feb 2017):	\$ 3,750,000

The MDCC recommended and the board adopted an overall rating of “leading” for Mr. Sachdev based on a results-based rating of “strong” and a values-based rating of “exemplary demonstration” with an individual performance factor of 135%. Mr. Sachdev’s rating derived principally from his leadership of the regulatory and governmental affairs organizations with respect to the following:

- Assuming responsibility for, and managing our global regulatory strategy
- Leading a successful reorganization of the global regulatory group
- Obtaining U.S. approval for ORKAMBI for patients age 6 to 11 who are homozygous for the F508del mutation
- Formulating the U.S. and European regulatory strategies for tezacaftor in combination with ivacaftor
- Leading the health economics outcomes research analysis of the long-term data for KALYDECO and ORKAMBI

## Annual Cash Bonus

The cash bonus (referred to in the *Summary Compensation Table* on page 64 of this proxy statement as “Non-Equity Incentive Plan Compensation”) is calculated by multiplying the executive officer’s target bonus by both the company performance factor and the individual performance factor, in accordance with the following formula in 2016:

Target Cash Bonus		×	Performance Factors			=	Cash Bonus	
Base Salary	×	Individual Incentive Target (expressed as a percentage of base salary)	×	Company Performance Factor (expressed as a percentage of the target bonus)	×	Individual Performance Factor (expressed as a percentage of the target bonus)	=	Annual Cash Bonus Award
		CEO 120% of base salary (50% of base salary for other NEOs)		0%- 150%		0-150%		

The individual incentive targets were established, and are reviewed annually, by the MDCC based on available data about Peer Group company compensation. These individual incentive targets remained unchanged since we modified our cash compensation program in 2012. In November 2016, in connection with his promotion to chief operating officer, we increased Mr. Smith’s individual target bonus (expressed as a percentage of his base salary) from 50% to 75% for 2017. The resulting target annual bonuses approximate the median target annual bonuses for comparable executives at peer companies.

Company performance factors are determined annually and range from 0% to 150%. The possible individual ratings and corresponding individual performance factor ranges for our executive officers in 2016 are set forth in the table below:

Individual Rating	Individual Performance Factor
Not Building	0%
Building	50%-80%
Strong	80%-120%
Leading	120%-150%
Leading/Exemplary	140%-150%

On the basis of the factors described above, our independent directors approved, upon the MDCC’s recommendation, individual performance factors and annual bonus awards for each of the NEO on account of 2016 performance, as set forth in the table below.

Name	2016 Target Bonus		Company Performance Factor		Individual Performance Factor		Proration Factor		2016 Performance Cash Bonus
Jeffrey M. Leiden	\$1,560,000	x	120%	x	120%	x	100%	=	\$ 2,246,400
Ian F. Smith	\$ 375,000	x	120%	x	125%	x	100%	=	\$ 562,500
David Altshuler	\$ 287,500	x	120%	x	145%	x	100%	=	\$ 500,250
Stuart A. Arbuckle	\$ 350,000	x	120%	x	100%	x	100%	=	\$ 420,000
Michael Parini	\$ 280,000	x	120%	x	150%	x	99%	=	\$ 499,867
Amit Sachdev	\$ 270,375	x	120%	x	135%	x	100%	=	\$ 438,007



## Annual Equity Awards

We made significant modifications to our equity program, fundamentally shifting from a share-based approach to granting equity to a value-based program. This program was fully implemented in 2016. As a result of these changes, we:

- substantially decreased the value of compensation provided in the form of stock options (30% of total annual awards);
- reduced the value of compensation delivered in the form of time-vested restricted stock (35% of total annual awards); and
- increased the link between performance and compensation by introducing PSU (35% of total annual awards).

### Value-Based Guidelines for Annual NEO Equity Grants

Under our program our NEOs were eligible for awards with the following target values based on 2016 performance:

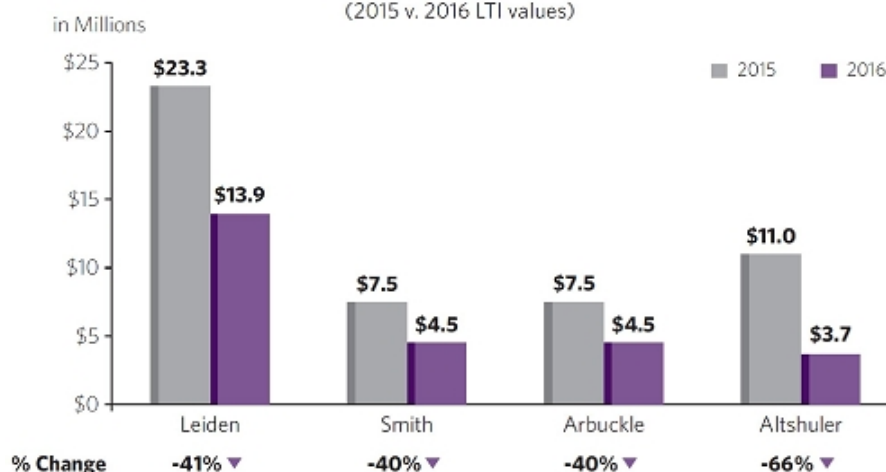
	Not Building	Building	Strong	Leading	Leading/Exemplary
CEO	\$ —	\$ 5,500,000	\$ 11,000,000	\$ 12,500,000	\$ 14,000,000
EVP	\$ —	\$ 1,500,000	\$ 3,000,000	\$ 3,750,000	\$ 4,500,000

The number of shares subject to the time-vested restricted stock units and performance stock units is based on the fair value of our common stock on the date of grant. The number of shares subject to the stock options is based on an estimate of the fair value of the stock options pursuant to the Black-Scholes option pricing model based on information available as of the grant date.

### Comparison of Value of Equity Grants in 2016 and 2015

As a result of these changes, the grant date fair-value of our NEOs' total equity compensation under the annual program decreased by approximately 40% in 2016 under the new value-based program as compared to 2015 under the share-based program as set forth in the following chart, which sets forth the fair value of equity compensation received by executives who were named executive officers in both 2016 and 2015. Dr. Altshuler's equity grants in 2015 included his sign-on equity grant.

**LTI PROGRAM CHANGE HAS RESULTED IN DECREASED EQUITY AWARD LEVELS FOR NEOs**  
(2015 v. 2016 LTI values)



*The values of equity-based awards are based on our methodology for determining the grant-date fair value, including underlying assumptions for calculating these values as set forth in Note N to our consolidated financial statements included in our 2016 Annual Report on Form 10-K.*

## February 2017 Grants Based on 2016 Performance

In February 2017, our independent directors approved, upon the MDCC's recommendation, individual performance factors and equity awards for 2016 performance for each of the NEOs, as set forth in the table below.

Name	Individual Performance Rating	Performance-Based RSU (35%)	Options (30%)	Time-based RSU (35%)	Total Equity Value
Jeffrey M. Leiden	Leading	\$ 4,375,000	\$ 3,750,000	\$ 4,375,000	\$ 12,500,000
Ian F. Smith	Leading	\$ 1,312,500	\$ 1,125,000	\$ 1,312,500	\$ 3,750,000
David Altshuler	Leading Exemplary	\$ 1,575,000	\$ 1,350,000	\$ 1,575,000	\$ 4,500,000
Stuart A. Arbuckle	Strong	\$ 1,050,000	\$ 900,000	\$ 1,050,000	\$ 3,000,000
Michael Parini	Leading Exemplary	\$ 1,575,000	\$ 1,350,000	\$ 1,575,000	\$ 4,500,000
Amit Sachdev	Leading	\$ 1,312,500	\$ 1,125,000	\$ 1,312,500	\$ 3,750,000

(1) Estimates for value of equity-based awards granted in February 2017 for 2016 performance are based on our methodology for determining the grant-date fair value, including underlying assumptions for calculating these values as set forth in Note N to our consolidated financial statements included in our 2016 Annual Report on Form 10-K and are subject to adjustment.

The terms of the equity granted in 2017 are as follows:

- **Stock Options.** Stock options are granted at fair market value on the date of grant and vest over four years.
- **Performance Stock Units.** The PSUs vest, if at all, based half on financial and half on non-financial goals. The potential range of shares issuable pursuant to the performance stock unit awards range from 0% to 200% of the target shares based on financial and non-financial measures. Fifty percent of PSUs that could be earned have a one-year performance period with the amount actually earned dependent upon Vertex's net product revenue performance and with vesting of the earned shares in three equal installments over a three-year period. The remaining 50% of PSUs that could be earned have a three-year performance period with the amount actually earned dependent upon the achievement of multiple clinical development milestones (i.e., advancement of CF and non-CF therapies in the clinic) and with the earned shares cliff vesting at the end of the three-year performance period.
- **Time-based Stock Units.** The time-based restricted stock units vest over a three-year period, subject to continued service.

## 2016 Performance Units Company Target and Results Table

We made our first equity grants under our new program in February 2016 based on 2015 performance. The structure of the awards granted in 2016 is the same as the structure of the awards granted in 2017. The final performance multiplier for the the 2016 financial-based performance restricted stock unit awards was determined by the MDCC and applied to the target units granted to determine the actual units earned and eligible to vest. The following chart shows the pre-established financial goals and the actual results for the financial-based performance restricted stock unit awards granted in 2016:

Company Goal	Threshold	Target	Max	Results	Payout
CF Net Product Revenues	\$ 1.65 billion	\$ 1.75 billion	\$ 1.90 billion	\$ 1.68 billion	66.5%

The performance multiple for the 2016 non-financial based performance restricted stock unit awards will be determined in the first quarter of 2019 based on performance over the three year performance period. The non-financial goals contained in our 3-year performance restricted stock units are not disclosed for competitive reasons.

## Other Compensation Arrangements

### Benefits

Our executives are eligible to participate in all benefit programs on the terms made generally available to our employees, including medical insurance, dental insurance, payment of life insurance premiums, disability coverage, equity programs, including a career employment/retirement provision, and participation in our employee stock purchase plan. We have a defined contribution—a 401(k)—plan, in which our NEOs are eligible to participate. We make matching contributions to the 401(k) plan. The formula for determining the amount of our matching contributions is the same for our NEOs as for our other employees (and are subject to the same statutory maximum), but the actual contributions made to the accounts of our NEOs generally are at the top end of the range, due to the executives' higher salaries and correspondingly higher cash contribution levels. We do not provide any other retirement benefits to our executive officers.

### Employment Agreements and Post-Termination Compensation and Benefits

The initial compensation terms for newly hired members of our executive team are the result of negotiations between us, in consultation with the MDCC and our board of directors, and the executive being recruited. Accordingly, the initial employment terms for each of the executive officers may vary significantly because they

take into account both our interests and the executive's interests under the circumstances at the time of negotiation, and depend on the level of job responsibility, the market for the executive's services, the value of other opportunities then available to the executive and similar considerations. Executives who join us from other companies may sacrifice potential bonuses and/or equity payouts, and may request compensation elements of similar value. More experienced individuals may seek higher compensation than individuals who are still establishing their careers. We seek to balance the need to be competitive in a competitive market against the need for the executive's compensation to be comparable with the executive's peers at the company. In general, each newly hired executive team member enters into an employment agreement and a change of control agreement and is awarded a stock option grant and a restricted stock grant, and in some cases a cash sign-on bonus, reimbursement of moving expenses, and other benefits. We also enter into employment and change of control agreements with executives who are promoted to our executive team, on the basis of standard terms and conditions that have been recommended by our MDCC and approved by our board for such circumstances. We have entered into agreements providing for severance and change of control payments with each of the members of our executive team, including all of the NEOs, because we believe that they are a fair and effective way to allow our executives to maintain focus on our business in the face of market and other volatility in our industry.

In general, each employment arrangement provides for cash severance and continuation of certain employee benefits in the event that an executive's employment is terminated by us without cause or is terminated by the executive for good reason. We use a "double trigger" with respect to benefits that are to be provided in connection with a change of control. A change of control does not itself trigger benefits; rather, benefits are paid only if the employment of the executive is terminated by us other than for cause, death or disability, or by the executive for good reason, during a specified period before or after a change of control. We believe a "double trigger" benefit maximizes shareholder value because it prevents a windfall to executives in the event of a change of control in which the executive retains significant responsibility as defined in his or her individual agreement, while still providing our executives appropriate incentives to cooperate in negotiating any change of control that may put their jobs at risk.

In addition to the benefits that only accrue in connection with a change of control, our agreements with our executive officers provide benefits if we terminate their employment with us without cause or they terminate their employment with us for good reason, as such terms are defined in the applicable agreement with the executive officer. A further discussion of the terms and projected payments under each of these agreements is set forth below under the heading *Employment Contracts and Change of Control Arrangements*.

## Tax Considerations

We would like our compensation program to be reasonably cost and tax effective. To the extent consistent with our other goals, we seek to preserve corporate tax deductions, while maintaining the flexibility to approve compensation arrangements that we believe are in the best interests of the company and our shareholders. The approach does not always result in full tax deductibility.

## Compensation Practices

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### Equity Grant Practices

The exercise price for each stock option awarded to our executive officers under our equity compensation program is equal to the fair market value of our common stock on the date of grant, which under our equity plans is the average of the high and low price for our common stock on the date of grant. Our board of directors generally grants annual equity awards to named executive officers at a board meeting scheduled in advance for early February. Scheduling decisions are made without regard to anticipated earnings or other major announcements by the company.

Newly hired employees, including executive officers, are sometimes granted options and/or restricted stock units effective on the first day of employment, with the options having an exercise price set at the average of the high and low price for our common stock on the employment start date. The employees' start dates are scheduled without regard to anticipated earnings or other major announcements by the company.

In the past, the MDCC has recommended that our board make an additional, off-cycle equity award to an executive officer or group of officers in order to achieve one or more of the objectives of our executive compensation program. Supplemental grants have been made on an ad hoc basis, when warranted in the judgment of the MDCC and our board. No such supplemental grants of equity compensation were made during 2015 or 2016. Our MDCC and board do not currently anticipate making supplemental grants in 2017, but retain the discretion to do so if warranted in their judgment.

### Compensation Recoupment ("Clawback") Policy

We have adopted a recoupment or claw-back policy providing that, if our board of directors determines that an executive officer engaged in fraud or intentional misconduct that resulted in an incorrect determination that an incentive compensation performance goal had been achieved, the board may take appropriate action to recover from such executive officer any compensation that resulted from such determination. The board may require repayment for any bonus, equity or incentive compensation awarded to an executive officer who engaged in the fraud or intentional misconduct to the extent it was based on such incorrect determination.

## Stock Ownership Guidelines

We have stock ownership guidelines for our chief executive officer and NEOs and guidelines for our non-employee directors, as discussed in *Non-Employee Director Stock Ownership Guidelines* on page 23 of this proxy statement. The guidelines for our NEOs are set forth in the following table:

Employee	Minimum Shareholding Requirement
Chief Executive Officer	6X base salary or 150K shares of our common stock
Executive Vice Presidents	4X base salary

Individual holdings, and holdings of immediate family members, of (a) common stock, including unvested restricted stock, (b) restricted stock units and (c) shares held through our 401(k) plan count toward meeting these guidelines. Each of our NEOs, including our chief executive officer, currently satisfies the individual holding requirements.

## Anti-Hedging and Pledging Policy

We prohibit all of our directors and employees, including our named executive officers, from (i) short selling or hedging our securities, (ii) purchasing or selling derivative securities based on our securities and (iii) pledging our securities.

## Risk Mitigation

Our MDCC reviews the risks and rewards associated with our compensation programs. The programs are designed with features that mitigate risk without diminishing the incentive nature of the compensation. We believe our compensation programs encourage and reward prudent business judgment and appropriate risk-taking over the short term and the long term. Our MDCC regularly evaluates the risks involved with our compensation programs and does not believe that any of our compensation programs create risks that are reasonably likely to have a material adverse effect on our company.

We believe that our annual cash bonus and long-term equity compensation programs, which account for most of our executive officers' compensation, contain appropriate risk mitigation factors, as summarized below:



# MANAGEMENT DEVELOPMENT AND COMPENSATION COMMITTEE REPORT

The Management Development and Compensation Committee has reviewed the Compensation Discussion and Analysis and discussed that analysis with management. Based on its review and its discussions with management, the Management Development and Compensation Committee recommended to Vertex's Board of Directors that the Compensation Discussion and Analysis be included in Vertex's proxy statement for its 2017 annual meeting of shareholders and incorporated by reference into Vertex's Annual Report on Form 10-K for the year ended December 31, 2016. This report is provided by the following directors who comprise the Management Development and Compensation Committee:

**Bruce I. Sachs (Chair)**  
**Terrence C. Kearney**  
**Elaine S. Ullian**  
**William D. Young**

# COMPENSATION AND EQUITY TABLES

## Summary Compensation Table

The following table provides summary information concerning compensation earned by (i) our president and chief executive officer; (ii) our chief operating officer and chief financial officer; and (iii) our other four most highly compensated employees who were serving as executive officers on December 31, 2016. We refer to these officers collectively as our named executive officers.

Name and Principal Position	Year	Salary	Bonus	Stock Awards	Option Awards	Non-Equity Incentive Plan Compensation	All Other Compensation	Total
<b>Jeffrey M. Leiden</b> Chairman, President & CEO	2016	\$ 1,300,000	\$ —	\$ 9,800,076	\$ 4,060,397	\$ 2,246,400	\$ 12,885	\$ 17,419,758
	2015	\$ 1,297,692	\$ —	\$ 7,038,885	\$ 16,286,939	\$ 3,463,200	\$ 13,110	\$ 28,099,826
	2014	\$ 1,100,000	\$ —	\$ 19,883,350	\$ 12,669,261	\$ 2,970,000	\$ 12,857	\$ 36,635,468
<b>Ian F. Smith</b> EVP & Chief Operating Officer and CFO	2016	\$ 750,000	\$ —	\$ 3,150,148	\$ 1,305,144	\$ 562,500	\$ 12,885	\$ 5,780,677
	2015	\$ 701,796	\$ —	\$ 2,258,991	\$ 5,199,586	\$ 832,500	\$ 13,110	\$ 9,005,983
	2014	\$ 650,000	\$ —	\$ 9,865,110	\$ 4,044,646	\$ 731,250	\$ 12,857	\$ 15,303,863
<b>David Altshuler</b> EVP & Chief Scientific Officer	2016	\$ 561,442	\$ —	\$ 2,625,152	\$ 1,087,620	\$ 500,250	\$ 12,885	\$ 4,787,349
	2015	\$ 528,846	\$ 250,000	\$ 9,078,750	\$ 1,964,534	\$ 552,628	\$ 13,110	\$ 12,387,868
<b>Stuart A. Arbuckle</b> EVP & Chief Commercial Officer	2016	\$ 672,885	\$ —	\$ 3,150,148	\$ 1,305,144	\$ 420,000	\$ 12,885	\$ 5,561,062
	2015	\$ 629,262	\$ —	\$ 2,258,991	\$ 5,199,586	\$ 721,500	\$ 13,110	\$ 8,822,449
	2014	\$ 600,000	\$ —	\$ 9,865,110	\$ 4,044,646	\$ 675,000	\$ 12,857	\$ 15,197,613
<b>Michael Parini</b> EVP & Chief Legal and Administrative Officer	2016	\$ 517,846	\$ 250,000	\$ 1,689,672	\$ 4,731,100	\$ 499,867	\$ 41,779	\$ 7,730,264
<b>Amit Sachdev</b> EVP & Chief Regulatory Officer	2016	\$ 540,750	\$ —	\$ 3,150,148	\$ 1,305,144	\$ 438,007	\$ 960	\$ 5,435,009

## Bonus

Pursuant to applicable SEC rules, the annual cash bonuses earned by our named executive officers are set forth under the caption "Non-Equity Incentive Plan Compensation." Other bonuses, such as sign-on bonuses, are listed separately under the caption "Bonus."

## Stock Awards and Options Awards

Pursuant to applicable SEC rules the grant-date fair values of the equity awards granted in February 2016 for 2015 performance are included in 2016 compensation. Equity awards granted in February 2017 for 2016 performance are not reflected in the *Summary Compensation Table* above and will be included as 2017 compensation in next year's proxy statement. The amounts set forth under the captions "Stock Awards" and "Option Awards" in the table above represent the grant-date fair value of awards granted during the applicable fiscal year.

Our methodology for determining the grant-date fair value, including underlying estimates and assumptions for calculating these values, is set forth in Note N to our consolidated financial statements included in our 2016 Annual Report on Form 10-K filed with the SEC on February 23, 2017.

The "Stock Awards" for 2016 consist of performance stock unit, or PSU, awards and time-vested restricted stock unit awards granted in February 2016 and a sign-on equity grant for Mr. Parini in January 2016. The "Stock Awards" for 2015 consist of performance-accelerated restricted stock, or PARS, awards granted in February 2015 and a sign-on equity grant for Dr. Altshuler in February 2015. The "Stock Awards" for 2014 consist of PARS awards granted in February 2014, a sign-on equity grant for Dr. Chodakewitz in January 2014 and one-time performance-contingent retention awards granted in the fourth quarter of 2014 to each of Dr. Leiden, Mr. Smith and Mr. Arbuckle.

## Non-Equity Incentive Plan Compensation—Annual Cash Bonus

The amounts set forth under the caption “Non-Equity Incentive Plan Compensation” in the table above represent annual cash bonuses for 2016, 2015 and 2014 performance, each of which was paid in the first quarter of the subsequent year. The cash bonus awards to the named executive officers for 2016 performance were determined as follows:

Name	Base Salary		Individual Incentive Target		2016 Target Bonus		Company Performance Factor		Individual Performance Factor		Proration Factor		2016 Performance Cash Bonus
Jeffrey M. Leiden	\$ 1,300,000	x	120%	=	\$1,560,000	x	120%	x	120%	x	100%	=	\$ 2,246,400
Ian F. Smith	\$ 750,000	x	50%	=	\$ 375,000	x	120%	x	125%	x	100%	=	\$ 562,500
David Altshuler	\$ 575,000	x	50%	=	\$ 287,500	x	120%	x	145%	x	100%	=	\$ 500,250
Stuart A. Arbuckle	\$ 700,000	x	50%	=	\$ 350,000	x	120%	x	100%	x	100%	=	\$ 420,000
Michael Parini	\$ 560,000	x	50%	=	\$ 280,000	x	120%	x	150%	x	99%	=	\$ 499,867
Amit Sachdev	\$ 540,750	x	50%	=	\$ 270,375	x	120%	x	135%	x	100%	=	\$ 438,007

## All Other Compensation

The amounts set forth under the caption “All Other Compensation” in the table for 2016 consist of:

Name	401(k) Match	Life Insurance Premiums	Relocation Expense	Total
Jeffrey M. Leiden	\$11,925	\$ 960	\$ —	\$ 12,885
Ian F. Smith	\$11,925	\$ 960	\$ —	\$ 12,885
David Altshuler	\$11,925	\$ 960	\$ —	\$ 12,885
Stuart A. Arbuckle	\$11,925	\$ 960	\$ —	\$ 12,885
Michael Parini	\$11,925	\$ 960	\$ 28,894	\$ 41,779
Amit Sachdev	\$ —	\$ 960	\$ —	\$ 960

## Option Exercises and Stock Vested for 2016

The following table sets forth the value realized by our named executive officers from options to purchase common stock exercised by the named executive officers during 2016 and shares of restricted stock that vested during 2016. The value realized per share for options is based on the difference between the exercise price and the fair market value of the shares of common stock on the date the options were exercised. The value realized on vesting of restricted stock awards is based on the fair market value of the shares on the vesting date.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise	Value Realized on Exercise	Number of Shares Acquired on Vesting	Value Realized on Vesting
Jeffrey M. Leiden	—	\$ —	19,667	\$1,790,484
Ian F. Smith	—	\$ —	12,084	\$1,100,127
David Altshuler	—	\$ —	—	\$ —
Stuart A. Arbuckle	—	\$ —	8,458	\$ 758,323
Michael Parini	—	\$ —	—	\$ —
Amit Sachdev	—	\$ —	10,166	\$ 925,513



## Total Realized Compensation Table

To supplement the SEC-required disclosure in the *Summary Compensation Table* set forth above, we have included the additional table below, which shows "Total Realized Compensation" representing the total compensation realized by each named executive officer in each of the years shown. Total compensation as calculated under SEC rules, as shown in the *Summary Compensation Table*, includes several items that are driven by accounting assumptions, which are not necessarily reflective of compensation actually realized by the named executive officers in a particular year. The amounts reported in the Total Realized Compensation column differ substantially from the amounts reported in the Total column required under SEC rules and are not a substitute for those Total amounts. Total Realized Compensation represents: (1) Total compensation, as determined under applicable SEC rules, *minus* (2) the aggregate grant-date fair value of restricted stock unit awards, restricted stock awards and stock option awards (as determined under applicable SEC and accounting rules and reflected in the Stock Awards column and Option Awards column), *plus* (3) the value realized in the applicable year from the vesting of restricted stock and exercises of stock options (calculated in the same manner as for the *Option Exercises and Stock Vested for 2016* table on page 65 of this proxy statement).

Name	Year	Salary	Annual Cash Bonus	All Other Compensation/ Bonus	Value Realized from Vesting of Restricted Stock	Value Realized from Stock Options	Total Realized Compensation
Jeffrey M. Leiden	2016	\$ 1,300,000	\$ 2,246,400	\$ 12,885	\$ 1,790,484	\$ —	\$ 5,349,769
	2015	\$ 1,297,692	\$ 3,463,200	\$ 13,110	\$ 7,739,355	\$ —	\$ 12,513,357
	2014	\$ 1,100,000	\$ 2,970,000	\$ 12,857	\$ 5,988,035	\$ 18,793,100	\$ 28,863,992
Ian F. Smith	2016	\$ 750,000	\$ 562,500	\$ 12,885	\$ 1,100,127	\$ —	\$ 2,425,512
	2015	\$ 701,796	\$ 832,500	\$ 13,110	\$ 3,290,219	\$ —	\$ 4,837,625
	2014	\$ 650,000	\$ 731,250	\$ 12,857	\$ —	\$ 7,598,771	\$ 8,992,878
David Altshuler	2016	\$ 561,442	\$ 500,250	\$ 12,885	\$ —	\$ —	\$ 1,074,577
	2015	\$ 528,846	\$ 552,628	\$ 263,110	\$ —	\$ 1,229,700	\$ 2,574,284
Stuart A. Arbuckle	2016	\$ 672,885	\$ 420,000	\$ 12,885	\$ 758,323	\$ —	\$ 1,864,093
	2015	\$ 629,262	\$ 721,500	\$ 13,110	\$ 3,771,436	\$ 6,826,163	\$ 11,961,471
	2014	\$ 600,000	\$ 675,000	\$ 12,857	\$ 1,396,788	\$ 2,935,124	\$ 5,619,769
Michael Parini	2016	\$ 517,846	\$ 499,867	\$ 291,779	\$ —	\$ —	\$ 1,309,492
Amit Sachdev	2016	\$ 540,750	\$ 438,007	\$ 960	\$ 925,513	\$ —	\$ 1,905,230

## Grants of Plan-Based Awards During 2016

The following table provides information with respect to grants of awards to each of our named executive officers during 2016. Pursuant to SEC rules, (i) the threshold, target and maximum amounts payable pursuant to our 2016 annual cash bonus program are set forth in columns three through five, (ii) the threshold, target and maximum number of shares that could vest pursuant to PSUs granted in 2016 are set forth in columns six through eight, (iii) the number of shares granted pursuant to other restricted stock unit and restricted stock awards in 2016, including a sign-on equity grant for Mr Parini, is set forth in column nine and (iv) the number of shares subject to option awards granted in 2016 is set forth in column ten.

Name	Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards (shares)			All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Sh)	Closing Price of Stock on Grant Date (\$/Sh)	Grant-Date Fair Value of Stock and Option Awards (\$)
		Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)	Target (#)	Maximum (#)					
Jeffrey M. Leiden		\$ 0	\$ 1,560,000	\$ 3,510,000								
	2/2/2016				—	26,909	53,818					\$ 2,450,065
	2/2/2016				—	26,908	53,816					\$ 2,449,973
	2/2/2016							53,817				\$ 4,900,038
	2/2/2016								107,276	\$ 91.05	\$ 90.98	\$ 4,060,397
Ian F. Smith		\$ 0	\$ 375,000	\$ 843,750								
	2/2/2016				—	8,650	17,300					\$ 787,583
	2/2/2016				—	8,649	17,298					\$ 787,491
	2/2/2016							17,299				\$ 1,575,074
	2/2/2016								34,482	\$ 91.05	\$ 90.98	\$ 1,305,144
David Altshuler		\$ 0	\$ 287,500	\$ 646,875								
	2/2/2016				—	7,208	14,416					\$ 656,288
	2/2/2016				—	7,208	14,416					\$ 656,288
	2/2/2016							14,416				\$ 1,312,576
	2/2/2016								28,735	\$ 91.05	\$ 90.98	\$ 1,087,620
Stuart A. Arbuckle		\$ 0	\$ 350,000	\$ 787,500								
	2/2/2016				—	8,650	17,300					\$ 787,583
	2/2/2016				—	8,649	17,298					\$ 787,491
	2/2/2016							17,299				\$ 1,575,074
	2/2/2016								34,482	\$ 91.05	\$ 90.98	\$ 1,305,144
Michael Parini		\$ 0	\$ 280,000	\$ 630,000								
	1/4/2016							13,800				\$ 1,689,672
	1/4/2016								68,000	\$ 122.45	\$ 122.89	\$ 3,461,880
	7/12/2016								34,000	\$ 90.29	\$ 89.63	\$ 1,269,220
Amit Sachdev		\$ 0	\$ 270,375	\$ 608,344								
	2/2/2016				—	8,650	17,300					\$ 787,583
	2/2/2016				—	8,649	17,298					\$ 787,491
	2/2/2016							17,299				\$ 1,575,074
	2/2/2016								34,482	\$ 91.05	\$ 90.98	\$ 1,305,144

**Annual Cash Bonus.** The amounts in the “Estimated Possible Payouts Under Non-Equity Incentive Plan Awards” column represent the minimum threshold, target and maximum amounts that our named executive officers were eligible for pursuant to our 2016 annual cash bonus program. Actual amounts paid to each of the named executive officers under this program for 2016 performance are set forth in the *Summary Compensation Table* above.

**PSU.** The amounts in the “Estimated Future Payouts Under Equity Incentive Plan Awards” column represent the minimum threshold, target and maximum amounts that could vest pursuant to PSUs granted in 2016. These awards vest if, and only if, performance objectives are achieved, as described in the footnotes to the table *Outstanding Equity Awards at Fiscal Year-End for 2016* below.

**Time-Based Restricted Stock Units.** The amounts in the “All Other Stock Awards: Number of Shares of Stock or Units” column represent the number of time-based restricted stock units granted to the named executive officers in 2016 and a sign-on equity grant for Mr Parini in January 2016. The number of time-based restricted stock units to these named executive officers were made in February 2016 on account of the executives’ performances in 2015.

**Options.** In accordance with our stock and option plans, the exercise prices for the stock options granted to our named executive officers during 2016 were equal to the average of the high and the low prices of our common stock on the grant date. As a result, in 2016 the exercise prices of options granted to our named executive officers were higher than the grant-date closing price for the February 2, 2016 grants and the July 12, 2016 grant to Mr. Parini. In the future, we expect that options will continue to be granted with exercise prices equal to the average of the high and low prices of our common stock on the grant date, and that as a result the exercise prices are likely to be different from the closing price of our common stock on the grant date. Each stock option set forth in the table above was granted subject to vesting in 16 quarterly installments during the first four years of its ten-year term.

## Outstanding Equity Awards at Fiscal Year-End for 2016

The following table provides information with respect to outstanding equity awards held by each of our named executive officers on December 31, 2016, based on the closing price of \$73.67 per share of our common stock on December 31, 2016:

Name	Option Awards				Stock Awards			
	Number of Securities Underlying Unexercised Options Exercisable (shares) <sup>(1)</sup>	Number of Securities Underlying Unexercised Options Unexercisable (shares) <sup>(1)</sup>	Option Exercise Price (per share)	Option Expiration Date <sup>(2)</sup>	Number of Shares or Units of Stock That Have Not Vested (shares)	Market Value of Shares or Units of Stock That Have Not Vested	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (shares)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested
Jeffrey M. Leiden	<b>Restricted Stock</b>				64,500 <sup>(3)</sup>	\$ 4,751,715		
	<b>Time-based RSU</b>						125,000 <sup>(5)</sup>	\$ 9,208,750
	<b>Performance-based RSU</b>				53,817 <sup>(4)</sup>	\$ 3,964,698		
	<b>Stock Options</b>						26,909 <sup>(6)</sup>	\$ 1,982,386
							26,908 <sup>(7)</sup>	\$ 1,982,312
		213,108	0	\$ 29.98	12/13/2021			
		30,000	0	\$ 34.05	7/5/2019			
		20,000	0	\$ 34.24	5/31/2020			
		1,527	0	\$ 34.39	12/14/2020			
		165,937	11,063	\$ 45.11	2/4/2023			
		118,000	0	\$ 48.74	7/24/2022			
		22,500	0	\$ 53.85	5/31/2021			
		146,437	66,563	\$ 77.31	2/4/2024			
		86,531	19,969	\$ 83.36	7/29/2023			
		20,114	87,162	\$ 91.05	2/1/2026			
		59,906	46,594	\$ 96.87	7/14/2024			
		93,187	119,813	\$ 109.14	2/2/2025			
	33,281	73,219	\$ 131.89	7/20/2025				
Ian F. Smith	<b>Restricted Stock</b>				20,700 <sup>(3)</sup>	\$ 1,524,969		
	<b>Time-based RSU</b>						75,000 <sup>(5)</sup>	\$ 5,525,250
	<b>Performance-based RSU</b>				17,299 <sup>(4)</sup>	\$ 1,274,418		
	<b>Stock Options</b>						8,650 <sup>(6)</sup>	\$ 637,246
							8,649 <sup>(7)</sup>	\$ 637,172
		23,789	0	\$ 37.86	2/1/2022			
		10,195	0	\$ 38.80	2/2/2021			
		33,984	3,399	\$ 45.11	2/4/2023			
		18,124	0	\$ 48.74	7/24/2022			
		9,062	0	\$ 51.75	7/12/2021			
		46,750	21,250	\$ 77.31	2/4/2024			
		27,625	6,375	\$ 83.36	7/29/2023			
		6,465	28,017	\$ 91.05	2/1/2026			
		19,125	14,875	\$ 96.87	7/14/2024			

Name	Option Awards				Stock Awards			
	Number of Securities Underlying Unexercised Options Exercisable (shares) <sup>(1)</sup>	Number of Securities Underlying Unexercised Options Unexercisable (shares) <sup>(1)</sup>	Option Exercise Price (per share)	Option Expiration Date <sup>(2)</sup>	Number of Shares or Units of Stock That Have Not Vested (shares)	Market Value of Shares or Units of Stock That Have Not Vested	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (shares)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested
	29,750	38,250	\$ 109.14	2/2/2025				
	10,625	23,375	\$ 131.89	7/20/2025				
David Altshuler	<b>Restricted Stock</b>						75,000 <sup>(5)</sup>	\$ 5,525,250
	<b>Time-based RSU</b>				14,416 <sup>(4)</sup>	\$ 1,062,026		
	<b>Performance-based RSU</b>							
	<b>Stock Options</b>						7,208 <sup>(6)</sup>	\$ 531,013
	7,500	0	\$ 63.14	5/23/2022			7,208 <sup>(7)</sup>	\$ 531,013
	7,500	0	\$ 72.14	5/31/2024				
	20,000	0	\$ 81.54	5/31/2023				
	5,387	23,348	\$ 91.05	2/1/2026				
	10,625	23,375	\$ 131.89	7/20/2025				
Stuart A. Arbuckle	<b>Restricted Stock</b>				20,700 <sup>(3)</sup>	\$ 1,524,969	75,000 <sup>(5)</sup>	\$ 5,525,250
	<b>Time-based RSU</b>				17,299 <sup>(4)</sup>	\$ 1,274,418		
	<b>Performance-based RSU</b>						8,650 <sup>(6)</sup>	\$ 637,246
	<b>Stock Options</b>						8,649 <sup>(7)</sup>	\$ 637,172
	22,656	5,664	\$ 45.11	2/4/2023				
	13,594	0	\$ 53.74	9/3/2022				
	17,000	21,250	\$ 77.31	2/4/2024				
	27,625	6,375	\$ 83.36	7/29/2023				
	6,465	28,017	\$ 91.05	2/1/2026				
	19,125	14,875	\$ 96.87	7/14/2024				
	29,750	38,250	\$ 109.14	2/2/2025				
	10,625	23,375	\$ 131.89	7/20/2025				
Michael Parini	<b>Restricted Stock</b>				13,800	\$ 1,016,646		
	<b>Stock Options</b>							
	2,125	31,875	\$ 90.29	7/11/2026				
	12,750	55,250	\$ 122.45	1/3/2026				
Amit Sachdev	<b>Restricted Stock</b>				17,250 <sup>(3)</sup>	\$ 1,270,808	40,000 <sup>(5)</sup>	\$ 2,946,800
	<b>Time-based RSU</b>				17,299 <sup>(4)</sup>	\$ 1,274,418		
	<b>Performance-based RSU</b>						8,650 <sup>(6)</sup>	\$ 637,246
	<b>Stock Options</b>						8,649 <sup>(7)</sup>	\$ 637,172
	17,156	0	\$ 37.86	2/1/2022				
	5,719	0	\$ 38.80	2/2/2021				
	25,733	2,860	\$ 45.11	2/4/2023				
	29,032	0	\$ 48.74	7/24/2022				
	30,500	0	\$ 51.75	7/12/2021				
	28,360	12,890	\$ 77.31	2/4/2024				
	22,343	5,157	\$ 83.36	7/29/2023				
	6,465	28,017	\$ 91.05	2/1/2026				

Name	Option Awards				Stock Awards			
	Number of Securities Underlying Unexercised Options Exercisable (shares) <sup>(1)</sup>	Number of Securities Underlying Unexercised Options Unexercisable (shares) <sup>(1)</sup>	Option Exercise Price (per share)	Option Expiration Date <sup>(2)</sup>	Number of Shares or Units of Stock That Have Not Vested (shares)	Market Value of Shares or Units of Stock That Have Not Vested	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (shares)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested
	15,468	12,032	\$ 96.87	7/14/2024				
	25,156	32,344	\$ 109.14	2/2/2025				
	10,625	23,375	\$ 131.89	7/20/2025				

- (1) Invested stock options are vesting in 16 quarterly installments during the first four years of their ten-year terms. The option expiration dates listed above reflect the final expiration date for each of the listed options. If the named executive officer's service with us is terminated, the options would expire, subject to certain exceptions, three months after the termination of service.
- (2) Dr. Leiden's options expiring in 2019 and 2020 and on May 31, 2021, which were granted in connection with service as a non-employee director, have ten-year terms and will not expire as a result of a termination of service. Dr. Altshuler's options expiring in 2022 and 2023 and 2024, which were granted in connection with service as a non-employee director, have ten-year terms and will not expire as a result of a termination of service.
- (3) Each of these restricted stock awards is a PARS award, which is subject to time-based vesting on February 3, 2019, the fourth anniversary of grant, subject to acceleration of vesting upon the achievement of specified performance objectives. The vesting accelerates for the first half of the shares upon (i) U.S net ORKAMBI sales for a 12-month period ending on a calendar quarter is equal to or greater than \$1.25 billion or (ii) completion of a clinical trial that establishes a proof-of-concept for a next-generation CFTR corrector. The vesting accelerates for the second half of the shares upon (i) worldwide net ORKAMBI sales, excluding U.S. net ORKAMBI sales, for a 12-month period ending on a calendar quarter that is equal to or greater than \$500 million or (ii) completion of a pivotal clinical trial of a non-cystic fibrosis drug candidate that provides sufficient data to support a new drug application.
- (4) These time-based restricted stock unit awards vested as to one third of the shares on February 10, 2017 and vests in two remaining annual installments on February 10, 2018 and 2019.
- (5) These restricted stock awards were granted in the fourth quarter of 2014 or the first quarter of 2015 and will vest only if performance objectives are achieved prior to November 15, 2019. These awards will vest, if we achieve positive EBITDA for the 12-month period ending September 30, 2017 on the third anniversary of the grant date. Between January 1, 2018 and November 15, 2019, if we achieve positive EBITDA for a 12-month period ending on a calendar quarter, these awards will vest on the day following the applicable earnings release. If the executive is terminated by us without cause after the second anniversary of the grant date and prior to November 15, 2019, 20% of the shares subject to the applicable award will vest if the performance condition is ultimately satisfied.
- (6) This performance stock unit award is based on the achievement of one-year financial performance metrics tied to our net product revenue for medicines for the treatment of cystic fibrosis ("Net Product Revenue") during 2016 and with vesting of the earned shares in three equal installments on each of February 10, 2017, 2018 and 2019. On February 3, 2017 our management development and compensation committee certified as to the level of performance-goal at 66.5% of the number of target shares.
- (7) This performance stock unit award is based on the achievement of three-year non-financial performance metrics. The awards provide for multiple clinical and research milestones, with a payout range of zero to 200%. The specific clinical and research milestones are not disclosed for competitive reasons. Performance against these goals will be certified by the MDCC in early 2019.

# SUMMARY OF TERMINATION AND CHANGE OF CONTROL BENEFITS

The amounts shown in the following table are calculated based on the amounts that would have been payable by us had the listed named executive officer experienced an employment termination on December 31, 2016.

	Voluntary Termination or Retirement/Termination for Cause	Separate From a Change of Control Involuntary Termination Other Than for Cause/Termination by Executive With Good Reason	In Connection With a Change of Control Involuntary Termination Other Than for Cause/Termination by Executive for Good Reason	Disability	Death
<b>Jeffrey M. Leiden</b>					
Cash Severance Benefits	\$ —	\$ 4,420,000	\$ 10,111,400	\$ 1,560,000	\$ 1,560,000
Continuation of Employee Benefits	—	38,242	38,242	—	—
Accelerated Vesting of Stock Options	—	315,959	315,959	315,959	315,959
Accelerated Vesting of Restricted Stock	—	18,085,528	21,889,862	8,647,617	21,889,862
<b>TOTAL</b>	<b>\$ —</b>	<b>\$ 22,859,729</b>	<b>\$ 32,355,463</b>	<b>\$ 10,523,576</b>	<b>\$ 23,765,821</b>
<b>Ian F. Smith</b>					
Cash Severance Benefits	\$ —	\$ 1,500,000	\$ 1,500,000	\$ 937,500	\$ 937,500
Continuation of Employee Benefits	—	25,495	25,495	—	—
Accelerated Vesting of Stock Options	—	97,075	97,075	97,075	97,075
Accelerated Vesting of Restricted Stock	—	7,138,106	9,599,054	5,658,525	9,599,054
280G Excise Tax	—	—	—	—	—
<b>TOTAL</b>	<b>\$ —</b>	<b>\$ 8,760,676</b>	<b>\$ 11,221,624</b>	<b>\$ 6,693,100</b>	<b>\$ 10,633,629</b>
<b>David Altschuler</b>					
Cash Severance Benefits	\$ —	\$ 862,500	\$ 1,150,000	\$ —	\$ —
Continuation of Employee Benefits	—	25,495	25,495	—	—
Accelerated Vesting of Stock Options	—	—	—	—	—
Accelerated Vesting of Restricted Stock	—	—	7,649,303	—	7,649,303
<b>TOTAL</b>	<b>\$ —</b>	<b>\$ 887,995</b>	<b>\$ 8,824,798</b>	<b>\$ —</b>	<b>\$ 7,649,303</b>
<b>Stuart A. Arbuckle</b>					
Cash Severance Benefits	\$ —	\$ 1,050,000	\$ 1,400,000	\$ —	\$ —
Continuation of Employee Benefits	—	25,495	25,495	—	—
Accelerated Vesting of Stock Options	—	—	161,764	—	161,764
Accelerated Vesting of Restricted Stock	—	—	9,599,054	—	9,599,054
<b>TOTAL</b>	<b>\$ —</b>	<b>\$ 1,075,495</b>	<b>\$ 11,186,313</b>	<b>\$ —</b>	<b>\$ 9,760,818</b>
<b>Michael Parini</b>					
Cash Severance Benefits	\$ —	\$ 840,000	\$ 1,120,000	\$ —	\$ —
Continuation of Employee Benefits	—	—	—	—	—
Accelerated Vesting of Stock Options	—	—	—	—	—
Accelerated Vesting of Restricted Stock	—	—	1,016,646	—	1,016,646
<b>TOTAL</b>	<b>\$ —</b>	<b>\$ 840,000</b>	<b>\$ 2,136,646</b>	<b>\$ —</b>	<b>\$ 1,016,646</b>
<b>Amit Sachdev</b>					
Cash Severance Benefits	\$ —	\$ 811,125	\$ 1,081,500	\$ —	\$ —
Continuation of Employee Benefits	—	25,246	25,246	—	—
Accelerated Vesting of Stock Options	—	81,682	81,682	—	81,682
Accelerated Vesting of Restricted Stock	—	5,029,915	6,766,442	—	6,766,442
<b>TOTAL</b>	<b>\$ —</b>	<b>\$ 5,947,968</b>	<b>\$ 7,954,870</b>	<b>\$ —</b>	<b>\$ 6,848,124</b>

The amounts in the table above do not include any life insurance payments or disability insurance payments that the executive or the executive's estate may receive under existing insurance policies. The assumptions underlying the calculations in the table include:

- the value of each share subject to an option to purchase common stock that would be accelerated or continue to vest in the circumstances described below under *Employment Contracts and Change of Control Arrangements* equals \$73.67 per share (the closing price on the last trading day of 2016), minus the exercise price per share;
- the value of each share of restricted stock for which our repurchase right would lapse or restricted stock unit that would be accelerated or continue to vest, in each case in the circumstances described below, equals \$73.67 per share (the closing price on the last trading day of 2016);
- appropriate provision for the continuation of all then-outstanding options would be made in connection with a change of control;
- our board of directors would elect not to pay a pro rata portion of an executive's target bonus for the year of termination in cases where the executive's employment is terminated voluntarily by the executive (for any reason, including retirement) or for cause, under our policy that cash bonuses are payable only to employees who are otherwise eligible and who remain employed by us on the date of bonus payment, typically in February of the next year;
- our board of directors would have assigned the same 2016 individual and company performance ratings on December 31, 2016 as they assigned in the first quarter of 2017; and
- As of December 31, 2016, Dr. Leiden would not have received any benefits if he voluntarily retired. Under his amended employment agreement, Dr. Leiden is entitled to receive certain additional benefits upon retirement if (i) he were to provide 12 months notice or (ii) he retires at the end of the term of his employment agreement in March 2020.
- in addition to the amounts above, if Mr. Arbuckle had been involuntarily terminated by us as of December 31, 2016, then 20% of the 2014 retention award granted to him would vest on or after October 2017 to the extent the performance condition related to such award is ultimately satisfied. If Dr. Altshuler had been involuntarily terminated by us as of December 31, 2016, then 10% of his retention award would vest on or after October 2017 to the extent the performance condition related to such awards is ultimately satisfied. The value of the shares that could vest pursuant to this provision was \$1,105,050 for Mr. Arbuckle and \$552,525 for Dr. Altshuler.

The actual amounts that the named executive officers could receive in the future as a result of a termination of employment would likely differ materially from the amounts set forth above as a result of, among other things, changes in our stock price, changes in their base salary, target bonus amounts and actual bonus amounts, and the vesting and grants of additional equity awards.



# EMPLOYMENT CONTRACTS AND CHANGE OF CONTROL ARRANGEMENTS

We have entered into agreements and maintain plans that will require us to provide to our named executive officers cash compensation, benefits and/or acceleration of the vesting of equity awards in the event of termination of employment or service as a director under specified circumstances. The following summary descriptions of such agreements with our named executive officers are qualified by the complete terms and conditions set forth in each of the agreements. In addition to the agreements described below, outstanding options granted under our stock and option plans provide that, in the event of certain changes of control, either appropriate provision for the continuation of all then-outstanding options must be made, or the vesting of those options will be accelerated and they will become fully exercisable immediately prior to such change of control. As described below, the benefits that are to be provided in connection with a change of control are subject to a "double trigger." A change of control does not itself trigger benefits; rather, benefits are paid only if the employment of the executive is terminated by us other than for cause, death or disability or by the executive for good reason during a specified period before or after a change of control. The following descriptions are qualified in the entirety by the agreements with the executive officers, which have been filed with the SEC.

In addition to the benefits described below, under programs applicable to all employees, if a named executive officer dies while an employee, his estate and/or beneficiaries would receive full acceleration of all outstanding equity awards.

## Jeffrey M. Leiden

The terms and conditions of Dr. Leiden's employment are governed by a written employment contract, which was amended and restated in November 2016, and expires on March 31, 2020. Dr. Leiden's employment agreement provides that he is entitled to receive compensation as determined by our board of directors and is eligible to receive the benefits generally made available to our executives. In addition, Dr. Leiden has agreed not to engage in specified competitive activities for 18 months after his employment with us terminates.

If Dr. Leiden's employment is terminated by us without cause or he terminates his employment for good reason he would be entitled to receive, subject to limited exceptions:

Severance Payment:	A) 100% of the sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated B) A pro-rated bonus for the year in which the termination occurs based on his target bonus for the year in which the termination occurs
Equity:	Outstanding options, restricted stock and restricted stock units unvested on the termination date would receive partial vesting based on his years of service as an employee or non-employee director. This percentage is currently 70% and increases by 10% of each full year of service. Options granted starting in 2014 would remain exercisable for a ten year term.
Employee Benefits:	Continuation of certain employee benefits for up to 18 months

If Dr. Leiden's employment is terminated by us without cause or he terminates his employment for good reason within two years after a change of control of Vertex, he would instead be entitled to receive:

Severance Payment:	A) 299% of the sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated B) A pro-rated bonus for the year in which the termination occurs
Equity:	Full vesting of all outstanding options, restricted stock awards and restricted stock unit awards.
Employee Benefits:	Continuation of certain employee benefits for up to 18 months

Severance payments to Dr. Leiden in connection with a change of control may be reduced to increase their value to Dr. Leiden if such payments would be subject to an excise tax under Section 4999 of the Code. Dr. Leiden's employment agreement does not provide for a so-called Section 4999 excise tax "gross-up."

If Dr. Leiden's employment is terminated as a result of disability, he would be entitled to receive:

- a pro-rated bonus for the year of employment termination;
- vesting of options that would have vested during the 12 months following employment termination;
- for each restricted stock award that vests proportionally over time, vesting of all shares that would have vested in the 12 months following the employment termination;
- for each restricted stock award that cliff-vests on a specified date, vesting of shares pro rata over time on a daily basis from the date of grant through the date of employment termination; and
- for each RSU award, vesting of all shares that would have vested in the 12 months following the employment termination (using target or earned shares, as applicable, for performance-based awards), or, in the case of certain performance-based RSU awards, vesting of target shares pro-rata over time on a daily basis from the date of grant through the date of employment termination.

If Dr. Leiden dies while he is an employee, his estate and/or beneficiaries would receive a pro-rated bonus for the year of employment termination, as well as the full acceleration of his equity awards provided under our company-wide program. In addition, Dr. Leiden is eligible for a company-wide program that started in 2014 which provides, for eligible employees, upon a voluntary termination with 12 months notice (including as a result of the expiration of the term of his employment agreement), additional vesting of outstanding equity based on years of service as an employee and non-employee director. Dr. Leiden currently would receive vesting of 70% the unvested shares and this percentage will increase by 10% of each full year of service.

## Ian F. Smith

The terms and conditions of Mr. Smith's employment are governed by a written employment contract, which was entered into in 2001, amended and restated in 2004 and amended in 2008. Mr. Smith's employment agreement provides that he is entitled to receive compensation as determined by our board of directors and is eligible to receive the benefits generally made available to our executives. In addition, Mr. Smith has agreed not to engage in specified competitive activities for a period of one year after the termination of his employment with us.

If Mr. Smith's employment is terminated without cause, or if he terminates his employment with us of his own initiative for good reason or we do not renew his agreement, other than in connection with a change of control as described below, he would be entitled to receive:

Severance Payment:	A) The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated B) A pro rata portion of his target bonus for the year in which the termination occurs
Options:	Vesting of outstanding options that otherwise would have vested in the 18 months following termination
Restricted Stock:	Vesting of each outstanding restricted stock award that would otherwise have vested in the 18 months following the termination, treating each award that vests other than ratably as if it vests ratably over the term of the grant
Restricted Stock Units:	Vesting in full of each outstanding RSU award that would have otherwise vested in the 18 months following the termination (using target or earned shares, as applicable, for performance-based awards) or, in the case of certain performance-based RSU awards, vesting of target shares pro rata over time on a daily basis from the date of grant through the date that is 18 months following the termination
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

If we terminate Mr. Smith's employment without cause or he terminates his employment with us for good reason on a date within the 90 days prior to or the 12 months after a change of control he would be entitled to receive:

Severance Payment:	A) The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated B) A pro rata portion of his target bonus for the year in which the termination occurs
Options:	Full vesting of all outstanding options
Restricted Stock:	Full vesting of all outstanding restricted stock awards
Restricted Stock Units:	Vesting in full of all outstanding RSU awards (using target or earned shares, as applicable, for performance-based awards)
Employee Benefits:	Continuation of certain employee benefits for up to 12 months
Tax Benefits:	Additional payments required to compensate him if payments made under the employment agreement result in certain adverse tax consequences including excise taxes under Section 4999 of the Code

If Mr. Smith's employment is terminated as a result of his disability, he would receive six months of severance pay, a pro rata portion of his target bonus for the year in which the termination occurred and 12 months' acceleration of outstanding stock options, restricted stock awards and RSU awards (using target or earned shares, as applicable, for performance-based RSU awards), other than certain performance-based RSU awards which provide for vesting of target shares pro-rata over time on a daily basis from the date of grant through the date that is 12 months following the termination. If Mr. Smith dies while he is an employee, his estate and/or beneficiaries would receive six months of severance pay and a pro-rated target bonus for the year of employment termination, as well as the full acceleration of his equity awards provided under our company-wide program.

## David Altshuler

### Employment Agreement

The terms and conditions of Dr. Altshuler's employment are governed by a written employment contract, which was entered into in December 2014. His employment agreement provides that he is entitled to receive compensation as determined by our board of directors and is eligible to receive the benefits generally made available to our executives. In addition, Dr. Altshuler has agreed not to engage in specified competitive activities for a period of one year after the termination of his employment with us.

Under his employment agreement, if (i) Dr. Altshuler's employment is terminated without cause or (ii) he terminates his employment with us for good reason within 30 days of the event giving rise to his right to terminate for good reason, subject to notice and cure provisions, he would be entitled to receive:

Severance Payment:	The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

#### *Change of Control Agreement*

We have a change of control agreement with Dr. Altshuler, which was entered into in December 2014. Under this agreement, if we terminate Dr. Altshuler's employment without cause on a date within the 90 days prior to or the 12 months after a change of control or he terminates his employment within 30 days of an event giving rise to a right to terminate for good reason, subject to notice and cure provisions, and the event occurs on a date within the 90 days prior to or the 12 months after a change of control, he would be entitled to receive:

Severance Payment:	A) The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated B) A pro rata portion of his target bonus for the year in which the termination occurs
Options:	Full vesting of all outstanding options
Restricted Stock:	Full vesting of all outstanding restricted stock awards
Restricted Stock Units:	Vesting in full of all outstanding RSU awards (using target or earned shares, as applicable, for performance-based awards)
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

Severance payments to Dr. Altshuler in connection with a change of control may be reduced to increase their value to Dr. Altshuler if such payments would be subject to an excise tax under Section 4999 of the Code. Dr. Altshuler's agreements do not provide for a so-called Section 4999 excise tax "gross-up."

## **Stuart A. Arbuckle**

#### *Employment Agreement*

The terms and conditions of Mr. Arbuckle's employment are governed by a written employment contract, which was entered into in August 2012. His employment agreement provides that he is entitled to receive compensation as determined by our board of directors and is eligible to receive the benefits generally made available to our executives. In addition, Mr. Arbuckle has agreed not to engage in specified competitive activities for a period of one year after the termination of his employment with us.

Under his employment agreement, if (i) Mr. Arbuckle's employment is terminated without cause or (ii) he terminates his employment with us for good reason within 30 days of the event giving rise to his right to terminate for good reason, subject to notice and cure provisions, he would be entitled to receive:

Severance Payment:	The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

#### *Change of Control Agreement*

We have a change of control agreement with Mr. Arbuckle, which was entered into in August 2012. Under this agreement, if we terminate Mr. Arbuckle's employment without cause on a date within the 90 days prior to or the 12 months after a change of control or he terminates his employment within 30 days of an event giving rise to a right to terminate for good reason, subject to notice and cure provisions, and the event occurs on a date within the 90 days prior to or the 12 months after a change of control, he would be entitled to receive:

Severance Payment:	A) The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated B) A pro rata portion of his target bonus for the year in which the termination occurs
Options:	Full vesting of all outstanding options
Restricted Stock:	Full vesting of all outstanding restricted stock awards
Restricted Stock Units:	Vesting in full of all outstanding RSU awards (using target or earned shares, as applicable, for performance-based awards)
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

Severance payments to Mr. Arbuckle in connection with a change of control may be reduced to increase their value to Mr. Arbuckle if such payments would be subject to an excise tax under Section 4999 of the Code. Mr. Arbuckle's agreements do not provide for a so-called Section 4999 excise tax "gross-up."

## Michael J. Parini

### Employment Agreement

The terms and conditions of Mr. Parini's employment are governed by a written employment contract, which was entered into in November 2015. His employment agreement provides that he is entitled to receive compensation as determined by our board of directors and is eligible to receive the benefits generally made available to our executives. In addition, Mr. Parini has agreed not to engage in specified competitive activities for a period of one year after the termination of his employment with us.

Under his employment agreement, if (i) Mr. Parini's employment is terminated without cause or (ii) he terminates his employment with us for good reason within 30 days of the event giving rise to his right to terminate for good reason, subject to notice and cure provisions, he would be entitled to receive:

Severance Payment:	The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

### Change of Control Agreement

We have a change of control agreement with Mr. Parini, which was entered into in November 2015. Under this agreement, if we terminate Mr. Parini's employment without cause on a date within the 90 days prior to or the 12 months after a change of control or he terminates his employment within 30 days of an event giving rise to a right to terminate for good reason, subject to notice and cure provisions, and the event occurs on a date within the 90 days prior to or the 12 months after a change of control, he would be entitled to receive:

Severance Payment:	A) The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated B) A pro rata portion of his target bonus for the year in which the termination occurs
Options:	Full vesting of all outstanding options
Restricted Stock:	Full vesting of all outstanding restricted stock awards
Restricted Stock Units:	Vesting in full of all outstanding RSU awards (using target or earned shares, as applicable, for performance-based awards)
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

Severance payments to Mr. Parini in connection with a change of control may be reduced to increase their value to Mr. Parini if such payments would be subject to an excise tax under Section 4999 of the Code. Mr. Parini's agreements do not provide for a so-called Section 4999 excise tax "gross-up."

## Amit Sachdev

### Employment Agreement

The terms and conditions of Mr. Sachdev's employment are governed by a written employment contract, which was amended and restated in February 2013. His employment agreement provides that he is entitled to receive compensation as determined by our board of directors and is eligible to receive the benefits generally made available to our executives. In addition, Mr. Sachdev has agreed not to engage in specified competitive activities for a period of one year after the termination of his employment with us.

Under his employment agreement, if (i) Mr. Sachdev's employment is terminated without cause or (ii) he terminates his employment with us for good reason within 30 days of the event giving rise to his right to terminate for good reason, subject to notice and cure provisions, he would be entitled to receive:

Severance Payment:	The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated
Options:	Vesting of outstanding options that otherwise would have vested in the 18 months following termination
Restricted Stock:	Vesting of each outstanding restricted stock award that would otherwise have vested in the 18 months following the termination, treating each award that vests other than ratably as if it vests ratably over the term of the grant
Restricted Stock Units:	Vesting in full of each outstanding RSU award that would have otherwise vested in the 18 months following the termination (using target or earned shares, as applicable, for performance-based awards) or, in the case of certain performance-based RSU awards, vesting of target shares pro rata over time on a daily basis from the date of grant through the date that is 18 months following the termination
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

### *Change of Control Agreement*

We have a change of control agreement with Mr. Sachdev, which was amended and restated in February 2013. Under this agreement, if we terminate Mr. Sachdev's employment without cause on a date within the 90 days prior to or the 12 months after a change of control or he terminates his employment within 30 days of an event giving rise to a right to terminate for good reason, subject to notice and cure provisions, and the event occurs on a date within the 90 days prior to or the 12 months after a change of control, he would be entitled to receive:

Severance Payment:	A) The sum of his (i) base salary at the time of termination and (ii) target bonus for the year in which his employment is terminated
	B) A pro rata portion of his target bonus for the year in which the termination occurs
Options:	Full vesting of all outstanding options
Restricted Stock:	Full vesting of all outstanding restricted stock awards
Restricted Stock Units:	Vesting in full of all outstanding RSU awards (using target or earned shares, as applicable, for performance-based awards)
Employee Benefits:	Continuation of certain employee benefits for up to 12 months

Severance payments to Mr. Sachdev in connection with a change of control may be reduced to increase their value to Mr. Sachdev if such payments would be subject to an excise tax under Section 4999 of the Code. Mr. Sachdev's agreements do not provide for a so-called Section 4999 excise tax "gross-up."

# SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information regarding beneficial ownership of our common stock as of April 12, 2017, by:

- each shareholder known by us to be the beneficial owner of more than 5% of our common stock on that date;
- each of our directors and our director nominee;
- each named executive officer; and
- all directors and executive officers as a group.

Name and Address	Shares Beneficially Owned <sup>(1)</sup>	Percentage of Total <sup>(2)</sup>
<b>T. Rowe Price Associates, Inc.</b> <sup>(3)</sup> 100 E. Pratt Street Baltimore, Maryland 21202	21,860,325	8.8%
<b>Capital World Investors</b> <sup>(4)</sup> 333 South Hope Street Los Angeles, California 90071	20,758,133	8.3%
<b>BlackRock, Inc.</b> <sup>(5)</sup> 55 East 52nd Street New York, New York 10055	20,116,538	8.1%
<b>FMR LLC</b> <sup>(6)</sup> 245 Summer Street Boston, Massachusetts 02210	20,096,787	8.1%
<b>The Vanguard Group</b> <sup>(7)</sup> 100 Vanguard Blvd. Malvern, Pennsylvania 19355	15,914,094	6.4%
<b>Wellington Management Group LLP</b> <sup>(8)</sup> 280 Congress Street Boston, Massachusetts 02210	14,920,158	6.0%
<b>Sangeeta N. Bhatia</b> <sup>(9)</sup>	25,014	*
<b>Joshua Boger</b> <sup>(9)</sup>	1,096,784	*
<b>Alan Garber</b>	—	*
<b>Terrence C. Kearney</b> <sup>(9)</sup>	71,889	*
<b>Yuchun Lee</b> <sup>(9)</sup>	94,389	*
<b>Jeffrey M. Leiden</b> <sup>(9)</sup>	1,343,367	*
<b>Margaret G. McGlynn</b> <sup>(9)</sup>	91,207	*
<b>Bruce I. Sachs</b> <sup>(9)</sup>	153,198	*
<b>Elaine S. Ullian</b> <sup>(9)</sup>	82,779	*
<b>William D. Young</b> <sup>(9)</sup>	72,514	*
<b>Ian F. Smith</b> <sup>(9)</sup>	375,900	*
<b>David Altshuler</b> <sup>(9)</sup>	136,183	*
<b>Stuart A. Arbuckle</b> <sup>(9)</sup>	292,000	*
<b>Michael Parini</b> <sup>(9)</sup>	40,304	*
<b>Amit Sachdev</b> <sup>(9)</sup>	318,816	*
<b>All directors and executive officers as a group (17 persons)</b> <sup>(9)</sup>	4,458,966	1.8%

\* Less than 1%

(1) Beneficial ownership of shares for purposes of this proxy statement is determined in accordance with applicable SEC rules and includes shares of common stock as to which a person has or shares voting power and/or investment power, including dispositive power. The persons and entities named in the table have sole voting and investment power with respect to all shares shown as beneficially owned by them, except as noted below. Information with respect to persons other than directors and executive officers is based solely upon Schedules 13G and amendments thereto filed with the SEC in the first quarter of 2017.

(2) Percentage ownership is based on 249,043,095 shares of our common stock outstanding on April 12, 2017.

(3) Reflects the securities beneficially owned by clients of one or more investment advisers directly or indirectly affiliated with T. Rowe Price Associates, Inc.

(4) Capital World Investors is a division of Capital Research and Management Company ("CRMC") and is deemed the beneficial owner of the shares as a result of CRMC acting as investment adviser to various investment companies.

(5) Reflects the securities beneficially owned by clients of one or more investment advisers directly or indirectly owned by BlackRock, Inc.

(6) Reflects the securities beneficially owned, or that may be deemed to be beneficially owned, by FMR LLC, certain of its subsidiaries and affiliates, and other companies.

- (7) Includes 316,915 shares beneficially owned by Vanguard Fiduciary Trust Company and 176,984 shares held by Vanguard Investments Australia, Ltd., each of which are a wholly-owned subsidiaries of The Vanguard Group, Inc.
- (8) Reflects the securities beneficially owned by clients of one or more investment advisers directly or indirectly owned by Wellington Management Group LLP, including shares beneficially owned by Vanguard Health Care Fund.
- (9) Includes shares that may be acquired upon the exercise of options exercisable within 60 days after April 12, 2017, unvested shares of restricted stock as of April 12, 2017, unvested restricted stock units vesting within 60 days of April 12, 2017 and deferred stock units as of April 12, 2017 issued pursuant to our Non-Employee Director Deferred Compensation Plan, as follows:

	<b>Stock Options Exercisable Within 60 Days of April 12, 2017</b>	<b>Unvested Shares of Restricted Stock as of April 12, 2017</b>	<b>Unvested Restricted Units Vesting Within 60 Days of April 12, 2017</b>	<b>Deferred Stock Units as of April 12, 2017</b>
Sangeeta N. Bhatia	22,073	—	2,941	—
Joshua Boger	737,073	—	—	2,941
Alan Garber	—	—	—	—
Terrence C. Kearney	67,448	—	2,941	—
Yuchun Lee	90,407	—	2,941	—
Jeffrey M. Leiden	1,134,657	189,500	—	—
Margaret G. McGlynn	87,073	—	2,941	—
Bruce I. Sachs	127,073	—	—	4,915
Elaine S. Ullian	74,573	—	2,941	—
William D. Young	69,573	—	2,941	—
Ian F. Smith	274,894	95,700	—	—
David Altshuler	61,183	75,000	—	—
Stuart A. Arbuckle	188,117	95,700	—	—
Michael Parini	29,954	10,350	—	—
Amit Sachdev	249,137	57,250	—	—
All directors and executive officers as a group (17 persons)	3,366,370	631,875	17,646	7,856

## Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires directors, officers and persons who are beneficial owners of more than 10% of our common stock to file with the SEC reports of their ownership of our securities and of changes in that ownership. To our knowledge, based upon a review of copies of reports filed with the SEC with respect to the fiscal year ended December 31, 2016 and written representations by our directors and officers that no other reports were required with respect to their transactions, all reports required to be filed under Section 16(a) by our directors and officers and persons who were beneficial owners of more than 10% of our common stock were timely filed.



# OTHER INFORMATION

## Other Matters

The 2017 annual meeting of shareholders is called for the purposes set forth in the notice. Our board of directors does not know of any other matters to be considered by the shareholders at the 2017 annual meeting other than the matters described in the notice. However, the enclosed proxy confers discretionary authority on the persons named in the proxy card with respect to matters that may properly come before the annual meeting and that are not known to our board at the date this proxy statement was printed. It is the intention of the persons named in the proxy card to vote in accordance with their best judgment on any such matter.

## Shareholder Proposals for the 2018 Annual Meeting and Nominations for Director

In order to be considered for inclusion in the proxy statement for our 2018 annual meeting of shareholders, shareholder proposals must be received by us no later than January 2, 2018. If we do not receive notice of a matter to be considered for presentation at the 2018 annual meeting of shareholders by March 18, 2018, our proxy holders will have the right to exercise discretionary voting authority with respect to the proposal without including information regarding the proposal in our proxy materials. Proposals should be sent to the attention of our corporate secretary at our offices at 50 Northern Avenue, Boston, Massachusetts 02210.

If a shareholder wishes to nominate a candidate for election to our board of directors at the 2018 annual meeting of shareholders, but is not eligible or does not elect to have such candidate included in the proxy statement for our 2018 annual meeting of shareholders, such nomination may be submitted to our corporate secretary no later than March 10, 2018, and must include:

- the name and address of the shareholder who intends to make the nomination and of the person or persons to be nominated;
- a representation that the shareholder is a holder of record of our stock 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;
- a description of all arrangements or understandings between the shareholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the shareholder;
- the other information regarding each nominee proposed by the shareholder that would be required to be included in a proxy statement filed pursuant to the proxy rules of the SEC; and
- the consent of each nominee to serve on our board of directors if so elected.

If a shareholder wishes to nominate a candidate for election to our board at the 2018 annual meeting of shareholders, and is eligible and elects to have such candidate included in the proxy statement for our 2018 annual meeting of shareholders pursuant to our proxy access by-law, such nomination may be submitted to our corporate secretary no later than March 10, 2018 and must include, in addition to the information set forth for above for other shareholder nominees, the information set forth in Section 8(e) of Article II of our by-laws.

## Shareholder Communications to the Board

Generally, shareholders who have questions or concerns should contact our investor relations department at (617) 341-6100. However, any shareholder who wishes to address questions regarding our business directly with our board of directors, or any individual director, should direct his or her questions, in writing, in care of our corporate secretary, to our offices at 50 Northern Avenue, Boston, Massachusetts 02210. Under procedures approved by our board, including a majority of our independent directors, all substantive communications shall be reviewed by our corporate secretary and forwarded or reported to the chair of the corporate governance and nominating committee, the independent directors and/or our full board, as deemed appropriate, with the exception of those communications relating to ordinary or routine business affairs, personal grievances or matters as to which we tend to receive repetitive or duplicative communications.

## Householding of Annual Meeting Materials

Some banks, brokers and other nominee record holders may be participating in the practice of “householding” proxy statements and annual reports. This means that only one copy of our proxy statement and annual report may have been sent to multiple shareholders in your household. We will promptly deliver a separate copy of these documents to you if you write or call our corporate secretary at the following address or phone number: 50 Northern Avenue, Boston, Massachusetts 02210, telephone (617) 341-6100. If you want to receive separate copies of the annual report and proxy statement in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address and phone number.

## Solicitation

We will bear the cost of soliciting proxies, including expenses in connection with preparing and mailing this proxy statement. We have retained MacKenzie Partners, Inc. to assist in the solicitation of proxies at an estimated cost of approximately \$20,000. Proxies also may be solicited by our directors and employees by mail, by telephone, in person or otherwise. Employees will not receive additional compensation for solicitation efforts. In addition, we will request banks, brokers and other custodians, nominees and fiduciaries to forward proxy material to the beneficial owners of common stock and to obtain voting instructions from the beneficial owners. We will reimburse those firms for their reasonable expenses in forwarding proxy materials and obtaining voting instructions.

## Availability of Materials

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 has been filed with the SEC and provides additional information about us. It is available on the internet at [www.vrtx.com](http://www.vrtx.com) and is available in paper form (other than exhibits thereto) to beneficial owners of our common stock without charge upon written request to Investor Relations, 50 Northern Avenue, Boston, Massachusetts 02210. In addition, it is available to holders of record of our common stock at [www.envisionreports.com/vrtx](http://www.envisionreports.com/vrtx) and to beneficial holders of our common stock at [www.edocumentview.com/vrtx](http://www.edocumentview.com/vrtx).

## Forward Looking Statements

This proxy statement contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, including, without limitation, statements regarding our medicines, statements with respect to potential regulatory approval of our drug candidates and expected clinical development plans and timing, as well as statements with respect to Vertex’s potential future financial performance. While we believe the forward-looking statements contained in this proxy statement are accurate, these forward-looking statements represent the our beliefs only as of the date of this proxy statement and there are a number of factors that could cause actual events or results to differ materially from those indicated by such forward-looking statements, including risks listed under Risk Factors in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and available through the company’s website at [www.vrtx.com](http://www.vrtx.com). We disclaim any obligation to update the information contained in this proxy statement as new information becomes available.

# Appendix A Amendment to Restated Articles of Organization

## ARTICLE 6

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### E. Board of Directors

- Number, Election and Terms. Subject to the rights of the holders of any series of Preferred Stock to elect directors who shall serve for such term and have such voting powers as shall be provided in Article 4 of these Articles, the Board of Directors shall consist of such number of persons as shall be provided in the Corporation's By-Laws. The Board of Directors ~~shall be currently is~~ classified with respect to the time for which its members shall severally hold office by dividing them division into three classes, as nearly equal in number as possible, ~~with the term of office of one class expiring at the annual meeting of stockholders each year. At each annual meeting of the stockholders of the Corporation, the successors to the class of directors whose term expires at that meeting shall be elected to hold office for a term expiring at the annual meeting of stockholders held in the third year following the year of their election. If the number of directors is changed, any increase or decrease shall be apportioned by the Board of Directors among the classes so as maintain the number of directors in each class as nearly equal as possible.~~ Each director shall hold office until the annual meeting for the year in which such director's term expires and until such director's successor shall be elected and ~~shall qualify~~ qualified, subject to prior death, resignation, retirement or removal. ~~At the 2017 annual meeting of stockholders of the Corporation, the successors to the directors whose terms expire at that meeting shall be elected to hold office for terms expiring at the 2020 annual meeting of stockholders; at the 2018 annual meeting of stockholders, the successors to the directors whose terms expire at that meeting shall be elected for terms expiring at the 2019 annual meeting of stockholders; and at the 2019 annual meeting of shareholders, the successors to the directors whose terms expire at that meeting shall be elected for terms expiring at the 2020 annual meeting of stockholders. Thereafter all directors shall be elected for terms expiring at the next annual meeting of stockholders and until their successors shall be elected and qualified, subject to prior death, resignation, retirement or removal.~~ No director need be a stockholder.
- Nomination. Advance notice of nominations for the election of directors, other than by the Board of Directors or a committee thereof, shall be given within the time and in the manner provided in the By-Laws.
- Newly Created Directorships and Vacancies. Newly created directorships resulting from any increase in the number of directors and any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal, or other cause shall be filled only by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board of Director. ~~Any director elected in accordance with the preceding sentence~~ Each director chosen to fill a newly created directorship resulting from an increase in the number of directors shall be elected for a term expiring at the next annual meeting of stockholders and until such director's successor shall have been elected and qualified. Each director chosen to fill a vacancy on the Board of Directors resulting from death, resignation, disqualification, removal, or other cause shall hold office for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred ~~office of the director who is being succeeded~~ and until such director's successor shall have been elected and qualified. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.
- Removal of Directors. Any director may be removed from office by stockholder vote at any time, but only for cause, by the affirmative vote of the holders of a majority of the voting power of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. Any director may also be removed from office for cause by vote of a majority of the directors then in office.

# Appendix B Amendment to Amended and Restated By-Laws

## ARTICLE II

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### Board of Directors

Section 1. ~~Number, and Elections and Terms.~~ Subject to the rights of the holders of Preferred Stock to elect one or more additional directors under specified circumstances as provided in Article 4 of the Articles of Organization, the Board of Directors shall consist of not less than three nor more than eleven persons, the exact number to be fixed from time to time by the Board of Directors pursuant to a resolution adopted by a majority vote of the directors then in office. ~~The Board of Directors shall be classified with respect to the time for which they shall severally hold office directors shall be elected in the manner provided in the Articles of Organization, by such stockholders as have the right to vote thereon, by dividing them into three classes, as nearly equal in number as possible, with the term of office of one class expiring at the annual meeting of stockholders each year. At each annual meeting of the stockholders of the Corporation, the successors to the class of directors whose terms expire at that meeting shall be elected to hold office for terms expiring at the annual meeting of stockholders held in the third year following the year of their election. If the number of directors is changed, any increase or decrease shall be apportioned by the Board of Directors among the classes so as to maintain the number of directors in each class as nearly equal as possible. Each director shall hold office until the annual meeting for the year in which such director's term expires and until such director's successor shall be elected and shall qualify. No director need be a stockholder.~~

Section 2. Nomination. Nominations for the election of directors may be made by the Board of Directors or a committee appointed by the Board of Directors or by any stockholder entitled to vote in the election of directors generally. However, any stockholder entitled to vote in the election of directors generally may nominate one or more persons for election as directors at a meeting only if written notice of such stockholder's intent to make such nomination or nominations has been given, either by personal delivery or by mailing it, postage prepaid, to the Clerk of the Corporation not later than (a) with respect to an election to be held at an annual meeting of stockholders, ninety (90) days prior to the anniversary date of the immediately preceding annual meeting, and (b) with respect to an election to be held at a special meeting of stockholders for the election of directors, the close of business on the tenth day following the date on which notice of such meeting is first given to stockholders. Each such notice shall set forth (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 Corporation 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 Securities and Exchange Commission; and (v) the consent of each nominee to serve as a director of the Corporation if so elected. The presiding officer of the meeting may refuse to acknowledge the nomination of any person not made in compliance with the foregoing procedure.

Section 3. Newly Created Directorships and Vacancies. ~~Newly created directorships resulting from any increase in the number of directors and any and vacancies on the Board of Directors resulting from death, resignation, disqualification, removal, or other cause shall be filled only by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred and until such director's successor shall have been elected and qualified. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.~~ shall be filled as provided in the Articles of Organization.

Section 4. Removal of Directors. ~~Any director Directors may be removed from office by stockholder vote at any time, but only for cause, by the affirmative vote of the holders of at least a majority of the voting power of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. Any director may also be removed from office for cause by vote of a majority of the directors then in office.~~ only as provided in the Articles of Organization.

# Appendix C Amended and Restated 2013 Stock and Option Plan

## 1. DEFINITIONS

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Unless otherwise specified or unless the context otherwise requires, the following terms, as used in this Vertex Pharmaceuticals Incorporated Amended and Restated 2013 Stock and Option Plan, have the following meanings:

**Accounting Rules** means Financial Accounting Standards Board Accounting Standards Codification Topic 718, or any successor provision.

**Administrator** means the Board of Directors and/or a committee of the Board of Directors to which the Board of Directors has delegated power to act on its behalf in administering this Plan in whole or in part.

**Affiliate** means a corporation that, for purposes of Section 424 of the Code, is a parent or subsidiary of the Company, direct or indirect.

**Board of Directors** means the Board of Directors of the Company.

**Code** means the United States Internal Revenue Code of 1986, as amended.

**Common Stock** means shares of the Company's common stock, \$.01 par value.

**Company** means Vertex Pharmaceuticals Incorporated, a Massachusetts corporation.

**Employee** means an employee of the Company or of an Affiliate (including, without limitation, an employee who is also serving as an officer or director of the Company or of an Affiliate), designated by the Administrator to be eligible to be granted one or more Stock Rights under the Plan.

**Exchange Act** means the Securities Exchange Act of 1934, as amended.

**Fair Market Value** of a share of Common Stock on a particular date shall be the mean between the highest and lowest quoted selling prices on such date (the "valuation date") on the securities market where the Common Stock is traded, or if there were no sales on the valuation date, on the next preceding date within a reasonable period (as determined in the sole discretion of the Administrator) on which there were sales. If there were no sales in such a market within a reasonable period, the Fair Market Value shall be as determined in good faith by the Administrator in its sole discretion. The Fair Market Value as determined in this paragraph shall be rounded down to the next lower whole cent if the foregoing calculation results in fractional cents.

**Full Value Award** means any Stock Grant or Stock-Based Award other than Options and Stock Appreciation Rights.

**ISO** means an option entitling the holder to acquire Shares upon payment of the exercise price that is intended to qualify as an incentive stock option under Section 422 of the Code.

**Non-Employee Director** means a member of the Board of Directors who is not an employee of the Company or any Affiliate.

**Non-Qualified Option** means an option entitling the holder to acquire Shares upon payment of the exercise price that is not an ISO.

**Option** means an ISO or Non-Qualified Option.

**Participant** means an Employee, Non-Employee Director, consultant or advisor of the Company or an Affiliate to whom one or more Stock Rights are granted under the Plan. As used herein, "Participant" shall include "Participant's Survivors" and a Participant's permitted transferees where the context requires.

**Participant's Survivors** means a deceased Participant's legal representatives and/or any person or persons who acquires the Participant's rights to a Stock Right by will or by the laws of descent and distribution.

**Plan** means this Vertex Pharmaceuticals Incorporated Amended and Restated 2013 Stock and Option Plan, as amended from time to time.

**Restricted Stock Units** means an unfunded and unsecured promise, denominated in shares of Common Stock, to deliver Common Stock or cash measured by the value of Common Stock in the future, subject to the satisfaction of specified performance or other vesting conditions.

**Shares** means shares of the Common Stock as to which Stock Rights have been or may be granted under the Plan or any shares of capital stock into which the Shares are changed or for which they are exchanged within the provisions of the Plan.

**Stock Agreement** means an agreement between the Company and a Participant delivered pursuant to the Plan with respect to a Stock Right, in such form as the Administrator shall approve.

**Stock Appreciation Right** means a right entitling the holder upon exercise to receive an amount (payable in cash or in shares of Common Stock of equivalent value) equal to the excess of the Fair Market Value of the shares of Common Stock subject to the right over the base value (i.e., the exercise price) from which appreciation under the Stock Appreciation Right is to be measured.

**Stock-Based Award** means Restricted Stock Units, Stock Appreciation Rights or any other grant by the Company under the Plan of an equity award, equity-based award or other award that is convertible into Common Stock that is not an Option or Stock Grant.

**Stock Grant** means a grant by the Company of Shares under the Plan that may or may not be subject to restrictions requiring that the Shares underlying the Stock Grant be redelivered or offered for sale to the Company if specified service or performance-based conditions are not satisfied.

**Stock Right** means an Option (including an ISO or a Non-Qualified Stock Option), Stock Grant, or Stock-Based Award.

**Substitute Stock Rights** means Stock Rights issued under the Plan in substitution for equity awards of an acquired company that are converted, replaced or adjusted in connection with the acquisition.

**Termination of Service** means that a Participant ceases to be an Employee, Non-Employee Director, consultant or advisor with the Company and its Affiliates (for any reason other than death). A change in a Participant's form of service (e.g., from Employee to Non-Employee Director, consultant or advisor) shall not be a Termination of Service hereunder. Notwithstanding the foregoing, in construing the provisions applicable to any Stock Right relating to the payment of "nonqualified deferred compensation" (subject to Section 409A of the Code) upon a termination or cessation of employment or service, references to termination or cessation of employment or service, separation from service, retirement or similar or correlative terms will be construed to require a "separation from service" (as that term is defined in Section 1.409A-1(h) of the Treasury Regulations, after giving effect to the presumptions contained therein) from the Company and from all other corporations and trades or businesses, if any, that would be treated as a single "service recipient" with the Company under Section 1.409A-1(h)(3) of the Treasury Regulations.

## 2. PURPOSES OF THE PLAN

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The Plan is intended to encourage ownership of Shares by Employees, Non-Employee Directors and certain consultants and advisors to the Company in order to attract such persons, to induce them to work for the benefit of the Company or of an Affiliate and to provide additional incentive for them to promote the success of the Company or of an Affiliate. The Plan provides for the granting of Stock Rights to Employees, Non-Employee Directors, consultants and advisors of the Company.

## 3. SHARES SUBJECT TO THE PLAN

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The number of Shares subject to this Plan as to which Stock Rights may be granted from time to time shall be equal to the sum of:

- a. 27,875,861 shares of Common Stock; and
- b. the number of shares subject to awards granted under the Company's Amended and Restated 2006 Stock and Option Plan (the "**2006 Plan**") which expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by the Company at their original issuance price pursuant to a contractual repurchase right (subject, however, in the case of ISOs, to any limitations under the Code),

or the equivalent of such number of Shares after the Administrator, in its sole discretion, has interpreted the effect of any stock split, stock dividend, combination, recapitalization or similar transaction in accordance with Section 17 of this Plan. Subject to Section 17 of this Plan, and the provisions of the second paragraph of this Section 3, the number of Shares remaining subject to this Plan shall be reduced by (i) one Share for each Share subject to a Stock Right granted under this Plan that is not a Full Value Award and (ii) 1.66 Shares for each Share (each, a "**Full-Value Award Share**") subject to a Stock Right granted under this Plan that is a Full Value Award.

If an Option granted hereunder ceases to be outstanding, in whole or in part (other than by exercise), or if the Company shall reacquire (at no more than its original issuance price) any Shares issued pursuant to a Stock Grant, or if any Stock Right expires or is forfeited, cancelled or otherwise terminated or results in any Shares not being issued, the unissued Shares that were subject to such Stock Right shall again be available for issuance from time to time pursuant to this Plan; *provided, however*, that, the following Shares may not again be made available for issuance under the Plan: (i) Shares that are not issued or delivered because they are applied to the payment of the exercise or purchase price of any Stock Right or to satisfy the tax withholding requirements with respect to any Stock Right, (ii) the full number of Shares underlying any Stock Appreciation Right any portion of which is settled in Shares (and not only the number of Shares delivered in settlement of the Stock Right) and (iii) any Shares that have been repurchased by the Company using proceeds directly attributable to the exercise of Options. To the extent that Shares are returned to the Plan pursuant to this Section 3, (i) 1.66 Shares, for each Full Value Award Share granted under this Plan and (ii) one Share for all other Shares (including Shares returned from the 2006 Plan in accordance with clause (b) above), shall again be available for issuance from time to time pursuant to this Plan.

The maximum number of Shares that may be issued in satisfaction of ISOs is 27,875,861 Shares.

The Administrator may grant Substitute Stock Rights under the Plan. To the extent consistent with the requirements of Section 422 of the Code and the regulations thereunder (if applicable) and other applicable legal requirements (including applicable stock exchange requirements), Common Stock issued under Substitute Stock Rights will be in addition to and will not reduce the number of Shares available for Stock Rights under the Plan set forth in this Section 3, but, notwithstanding anything in this Section 3 to the contrary, if any Substitute Stock Right is settled in cash or expires, becomes unexercisable, terminates or is forfeited to or repurchased by the Company without the issuance of Common Stock, the Shares previously subject to such Stock Right will not be available for future grants under the Plan. The Administrator will determine the extent to which the terms and conditions of the Plan apply to Substitute Stock Rights, if at all, provided, however, that Substitute Stock Rights will not be subject to the last sentence of Section 6.1 or the per-Participant annual limits on grants of Stock Rights described in Section 13 below.

## 4. ADMINISTRATION OF THE PLAN

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The Administrator shall administer the Plan. Subject to the provisions of the Plan, the Administrator is authorized to:

- a. Interpret the provisions of the Plan and of any Stock Right or Stock Agreement and to make all rules and determinations that it deems necessary or desirable for the administration of the Plan;
- b. Determine which Employees, Non-Employee Directors, consultants and advisors of the Company and its Affiliates shall be granted Stock Rights;
- c. Determine the number of Shares and exercise price for which a Stock Right shall be granted;
- d. Specify the terms and conditions upon which a Stock Right or Stock Rights may be granted;
- e. In its discretion, accelerate:
  - (i) the date of exercise of any installment of any Option; or
  - (ii) the date or dates of vesting of Shares, or lapsing of Company repurchase rights with respect to any Shares, under any Stock Rights; and
- f. In its discretion, extend the period during which an Option may be exercised (but not beyond the earlier of the expiration date of the Option and the 10<sup>th</sup> anniversary of the date the Option was granted);

*provided, however*, that all such interpretations, rules, determinations, terms and conditions shall be made and prescribed in the context of preserving the tax status under Section 422 of the Code of those Options which are designated as ISOs (unless the holder of any such Option otherwise agrees). Subject to the foregoing, the interpretation and construction by the Administrator of any provisions of the Plan or of any Stock Right granted under it shall be final.

The Administrator may employ attorneys, consultants, accountants or other persons, and the Administrator, the Company and its officers and directors shall be entitled to rely upon the advice, opinions or valuations of such persons. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon the Company, all Participants, and all other interested persons. Neither the Administrator, nor the Company, nor any person acting on behalf of the Administrator or the Company shall be personally liable for any action, determination, or interpretation made in good faith with respect to this Plan or grants hereunder or for any acceleration of income or additional tax (including interest and penalties) asserted by reason of the failure of a Stock Right to satisfy the requirements of Section 422 of the Code, Section 409A of the Code or by reason of Section 4999 of the Code, or otherwise with respect to a Stock Right. Each member of the Administrator shall be indemnified and held harmless by the Company against any cost or expense (including counsel fees) reasonably incurred by him or her or any liability (including any sum paid in settlement of a claim with the approval of the Company) arising out of any act or omission to act in connection with this Plan unless arising out of such member's own fraud or bad faith. Such indemnification shall be in addition to any rights of indemnification the members of the Administrator may have as directors or otherwise under the by-laws of the Company, or any agreement, vote of shareholders or disinterested directors, or otherwise.

## 5. ELIGIBILITY FOR PARTICIPATION

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The Administrator shall, in its sole discretion, select the individuals to be the Participants in the Plan; *provided, however*, that each Participant must be an Employee, Non-Employee Director, consultant or advisor of the Company or of an Affiliate at the time a Stock Right is granted. Notwithstanding the foregoing, the Administrator may authorize the grant of a Stock Right to a person not then an Employee, Non-Employee Director, consultant or advisor of the Company or of an Affiliate; *provided, however*, that the actual grant of such Stock Right shall not be effective until such person becomes eligible to be a Participant. ISOs may be granted only to Employees. The granting of any Stock Right to any individual shall neither entitle that individual to, nor disqualify him or her from, participation in other grants of Stock Rights.

## 6. TERMS AND CONDITIONS OF OPTIONS

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6.1 *General*. Each Option shall be set forth in writing in a Stock Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Administrator may provide that Options be granted subject to such terms and conditions, consistent with the terms and conditions specifically required under this Plan, as the Administrator may deem appropriate including, without limitation, subsequent approval by the shareholders of the Company of this Plan or any amendments thereto. Each Stock Agreement shall state the exercise price (per share) of the Shares covered by each Option, the number of Shares to which it pertains, the date or dates on which it first is exercisable and the date after which it may no longer be exercised (subject to Sections 11 and 12 of this Plan). Options may vest or become exercisable in installments over a period of time, or upon the achievement of certain conditions or the attainment of stated goals or events. The exercise price per share of Shares covered by an Option (including both ISOs and Non-Qualified Options) shall not be less than one hundred percent (100%) of the Fair Market Value per share of the Common Stock on the date of grant.

6.2 *ISOs*. Each Option intended to be an ISO shall be issued only to an Employee. In addition to the provisions set forth in Section 6.1, ISOs shall be subject to the following terms and conditions, with such additional restrictions or changes as the Administrator determines are appropriate but not in conflict with Section 422 of the Code and relevant regulations and rulings of the Internal Revenue Service:

6.2.1 *ISO Exercise Price*. In addition to the limitation set forth in Section 6.1, the exercise price per share of the Shares covered by each ISO granted to a Participant who owns, directly or by reason of the applicable attribution rules in Section 424(d) of the Code,



more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or an Affiliate shall not be less than one hundred ten percent (110%) of the Fair Market Value on the date of grant.

6.2.2 *Term of ISO.* Each ISO shall expire not more than ten (10) years from the date of grant; *provided, however,* that an ISO granted to a Participant who owns, directly or by reason of the applicable attribution rules in Section 424(d) of the Code, more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or an Affiliate shall expire not more than five (5) years from the date of grant.

6.2.3 *Annual Limit on Incentive Stock Options.* To the extent required for "incentive stock option" treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the Shares with respect to which ISOs granted under this Plan and any other plan of the Company or its Affiliate become exercisable for the first time by a Participant during any calendar year shall not exceed the aggregate threshold for ISOs established by the Code (\$100,000 as of January 1, 2017). To the extent that any Option exceeds this limit, it shall constitute a Non-Qualified Option.

6.3 *Non-Employee Directors' Options.* Each Non-Employee Director, upon first being elected or appointed to the Board of Directors, shall, in addition to any other Stock Rights as may be determined by the Board of Directors, be granted a Non-Qualified Option to purchase that number of Shares as shall be established for such Option grants from time to time by the Board of Directors. In addition, unless otherwise determined by the Board of Directors, on June 1 of each year, each Non-Employee Director shall, in addition to any other Stock Rights as may be determined by the Board of Directors, be granted a Non-Qualified Option to purchase that number of Shares as shall be established for such Option grants from time to time by the Board of Directors. If a Non-Employee Director ceases to be any of an Employee, Non-Employee Director, consultant or advisor of the Company, Options granted under this Section 6.3 shall remain exercisable to the extent such Options are exercisable on the date of such Termination of Service, for their full term, and the provisions of Sections 11 and 12 below shall not apply to any such Options.

6.4 *Term of Options.* No Option will be granted with a term in excess of ten (10) years.

## **7. TERMS AND CONDITIONS OF STOCK GRANTS**

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Each Stock Grant shall be set forth in a Stock Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Stock Agreement shall be in the form approved by the Administrator, with such changes and modifications to such form as the Administrator, in its discretion, shall approve with respect to any particular Participant or Participants. The Stock Agreement shall contain terms and conditions that the Administrator determines to be appropriate and in the best interest of the Company. Each Stock Agreement shall state the number of Shares to which the Stock Grant pertains and the terms of any right of the Company to reacquire the Shares subject to the Stock Grant, including the time and events upon which such rights shall accrue and the purchase price therefor, and any restrictions on the transferability of such Shares.

## **8. TERMS AND CONDITIONS OF STOCK-BASED AWARDS**

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The Administrator shall have the right to grant Stock-Based Awards having such terms and conditions as the Administrator may determine, including, without limitation, the grant of Shares based upon certain conditions, the grant of securities convertible into Shares and the grant of Stock Appreciation Rights or Restricted Stock Units. The principal terms of each Stock-Based Award shall be set forth in a Stock Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Stock Agreement shall be in a form approved by the Administrator and shall contain terms and conditions that the Administrator determines to be appropriate. No Stock Appreciation Right will be granted with a term in excess of ten (10) years. The base value (i.e., exercise price) of any Stock Appreciation Right shall not be less than one hundred percent (100%) of the Fair Market Value per share of the Common Stock on the date of grant.

## **9. EXERCISE OF OPTIONS AND STOCK APPRECIATION RIGHTS AND ISSUANCE OF SHARES**

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Options and Stock Appreciation Rights (or any part or installment thereof) shall be exercised by delivery to the Company, or its designee, of a notice of exercise in any form (which may be electronic) approved by the Company, together, in the case of an Option, with provision for payment of the full purchase price in accordance with this Section for the Shares as to which the Option is being exercised, and upon compliance with any other condition(s) set forth in the Stock Agreement.

Payment of the exercise price for the Shares as to which such Option is being exercised shall be made (a) in cash or by check acceptable to the Administrator, or (b) at the discretion of the Administrator, (i) through delivery of shares of Common Stock not subject to any restriction under any plan and having a Fair Market Value equal as of the date of exercise to the cash exercise price of the Option, (ii) in accordance with a cashless exercise program established with a securities brokerage firm, and approved by the Company, (iii) by any other means (excluding, however, delivery of a promissory note of the

Participant) that the Administrator determines to be consistent with the purpose of this Plan and applicable law, or (iv) by any combination of the foregoing. Notwithstanding the foregoing, the Administrator shall accept only such payment on exercise of an ISO as is permitted by Section 422 of the Code.

Following the exercise of an Option or Stock Appreciation Right, and, in the case of an Option, the payment of the exercise price, in each case in accordance with this Section 9, and the satisfaction of any tax withholding as contemplated by Section 21, the Company shall, as soon as is reasonably practicable, deliver the Shares as to which such Option or Stock Appreciation Right was exercised to the Participant (or to the Participant's Survivors, as the case may be). It is expressly understood that the Company may delay the delivery of the Shares in order to comply with any law or regulation that requires the Company to take any action with respect to the Shares prior to their issuance. The Shares shall, upon delivery, be fully paid, non-assessable Shares.

## **10. ASSIGNABILITY AND TRANSFERABILITY OF STOCK RIGHTS**

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By its terms, a Stock Right granted to a Participant shall not be transferable by the Participant other than by will or by the laws of descent and distribution or pursuant to a domestic relations order as defined by the Code or Title I of the Employee Retirement Income Security Act or the rules thereunder or as approved by the Administrator in its discretion and set forth in the applicable Stock Agreement; *provided, however*, that the Administrator shall not approve any transfer of a Stock Right for consideration. Except as provided in the preceding sentence or as otherwise permitted under a Stock Agreement, a Stock Right shall be exercisable, during the Participant's lifetime only by such Participant (or by his or her legal representative) and shall not be assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment or similar process. Any attempted transfer, assignment, pledge, hypothecation or other disposition of any Stock Right or of any rights granted thereunder contrary to the provisions of this Plan, or the levy of any attachment or similar process upon a Stock Right, shall be null and void.

## **11. EFFECT ON STOCK RIGHTS OF TERMINATION OF SERVICE**

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11.1 Except as otherwise provided in the applicable Stock Agreement or as otherwise provided in Section 12, all Options and Stock Appreciation Rights held by a Participant, if any, immediately prior to the Participant's Termination of Service, to the extent then exercisable, will remain exercisable for ninety (90) days after the date of the Participant's Termination of Service, unless otherwise provided in the applicable Stock Agreement, but in no event after the expiration of the term of the Stock Right.

11.2 The provisions of this Section, and not the provisions of Section 12, shall apply to a Participant who subsequently dies after the Termination of Service. In the event of the death of a Participant within ninety (90) days after the Participant's Termination of Service, all Options and Stock Appreciation Rights held by the Participant, if any, immediately prior to such death, to the extent then exercisable, will remain exercisable for one (1) year after the date of the Participant's death, but in no event after the expiration of the term of the Stock Right.

11.3 Absence from work with the Company or an Affiliate because of temporary disability or a leave of absence for any purpose, shall not, during the period of any such absence in accordance with Company policies, be deemed, by virtue of such absence alone, a Termination of Service, except as the Administrator may otherwise expressly provide or except as otherwise provided by law.

11.4 Except as required by law or as set forth in a Participant's Stock Agreement and, in the case of any Stock Right that constitutes "non-qualified deferred compensation" subject to Section 409A of the Code, only to the extent consistent with Section 409A of the Code, Stock Rights granted under the Plan shall not be affected by any change of a Participant's status within or among the Company and any Affiliates, so long as the Participant continues to be an Employee, Non-Employee Director, consultant or advisor of the Company or any Affiliate.

## **12. EFFECT ON STOCK RIGHTS OF DEATH WHILE AN EMPLOYEE, DIRECTOR, CONSULTANT OR ADVISOR**

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Except as otherwise provided in a Participant's Stock Agreement, in the event of the death of a Participant while the Participant is an Employee, Non-Employee Director, consultant or advisor of the Company or of an Affiliate, (i) vesting of all unvested Shares subject to outstanding Stock Rights shall be accelerated and (ii) all Options and Stock Appreciation Rights held by the Participant, if any, immediately prior to such death, to the extent then exercisable, will remain exercisable for a period of one (1) year after the date of death of the Participant but in no event after the date of expiration of the term of the Stock Right.

## 13. ANNUAL LIMITS ON STOCK RIGHTS; PERFORMANCE AWARDS

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13.1 *Annual Limits.* Notwithstanding anything in this Plan to the contrary, no Participant shall be granted Stock Rights under this Plan in any calendar year for more than an aggregate of 1,000,000 Shares (subject to adjustment pursuant to Section 17 to the extent consistent with Section 162(m) of the Code). For purposes of the foregoing limitation, each Share subject to a Stock Right shall be counted as one Share of Common Stock (including each Share subject to a Full-Value Award). To the extent applicable, the foregoing provisions will be construed in a manner consistent with Section 162(m) of the Code, including, without limitation, where applicable, the rules under Section 162(m) of the Code pertaining to permissible deferrals of exempt awards.

13.2 *Performance Awards.* Stock Grants and Stock-Based Awards may be made subject to the achievement of performance goals pursuant to this Section 13.2 (“**Performance Awards**”). Grants of Performance Awards intended to qualify as “performance-based compensation” under Section 162(m) of the Code (“**Performance-Based Compensation**”) shall be made only by a “**Committee**” comprised solely of two or more directors eligible to serve on a committee making awards intended to qualify as “performance-based compensation” under Section 162(m) of the Code. For any Performance Award that is intended to qualify as Performance-Based Compensation, the Committee shall specify that the degree of granting, vesting and/or payout of the Performance Award shall be based on the relative or absolute attainment of one or any combination of the following objective performance measures: (i) revenue targets or revenue growth targets, (ii) achievement of specified milestones in the discovery, development or regulatory approval of one or more of the Company’s drug candidates, (iii) achievement of specified milestones in the commercialization of one or more of the Company’s products, (iv) achievement of specified milestones in the manufacturing of one or more of the Company’s products, (v) cost reduction or other expense control targets, (vi) personal management objectives, (vii) stock price targets (including, but not limited to, growth measures), (viii) total shareholder return, (ix) income per share, (x) operating efficiency measures, (xi) operating margin, (xii) gross margin, (xiii) return measures (including, but not limited to, return on assets, capital, equity or sales), (xiv) net or total revenue levels, (xv) productivity ratios, (xvi) operating income, (xvii) net operating profit, (xviii) net earnings or net income (before or after taxes), (xix) cash flow (including, but not limited to, operating cash flow, free cash flow and cash flow return on capital), (xx) earnings or operating income before interest, taxes, depreciation, amortization and/or stock-based compensation expense, (xxi) mergers, acquisitions or divestitures objectives, (xxii) market share, (xxiii) customer satisfaction, (xxiv) working capital targets, (xxv) budget objectives and (xxvi) achievement of other balance sheet or statement of operations objectives.

Each objective performance measure that is a financial measure may be determined pursuant to generally accepted accounting principles (“**GAAP**”) or on a non-GAAP basis, as determined by the Committee. Such objective performance measures may reflect absolute entity or business unit performance or a relative comparison to the performance of a peer group of entities, an index or indices or other external measure of the selected performance criteria and may be absolute in their terms or measured against or in relationship to other companies comparably, similarly or otherwise situated. The objective performance measures and any targets with respect thereto need not be based on an increase, a positive or improved result or the avoidance of loss.

The Committee may specify that such performance measures shall be adjusted to exclude or provide for appropriate adjustment for one or more of the following items: (A) asset impairments or write-downs; (B) litigation and governmental investigation expenses and judgments, verdicts or claim settlements; (C) the effect of changes in tax law, accounting principles or other laws, regulations or provisions affecting reported results; (D) the effect of exchange rates for non-U.S. dollar denominated net sales or goals based on operating profit, earnings or income; (E) accruals for reorganization and restructuring programs; (F) any non-GAAP adjustments as described in the Company’s earnings releases or in the management’s discussion and analysis of financial condition and results of operations appearing in the Company’s periodic reports; (G) items of income, gain, loss or expense attributable to the operations of any business acquired by the Company or any parent or subsidiary or of any joint venture established by the Company or any parent or subsidiary; (H) costs and expenses incurred in connection with mergers and acquisitions; (I) items of income, gain, loss or expense attributable to one or more business operations divested by the Company or any parent or subsidiary or the gain or loss realized upon the sale of any such divested business or the assets thereof; or (J) the effect of any change in the outstanding shares of Common Stock effected by reason of a stock split, stock dividend, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change or any distributions to the Company’s shareholders other than regular cash dividends.

Such performance measures: (1) may vary by Participant and may be different for different Stock Rights; (2) may be particular to a Participant or the department, branch, line of business, subsidiary or other unit in which a Participant works and may cover such performance period as may be specified by the Committee; and (3) shall be set by the Committee within the time period prescribed by, and shall otherwise comply with the requirements of, Section 162(m) of the Code.

Notwithstanding any provision of the Plan, with respect to any Performance Award that is intended to qualify as Performance-Based Compensation, the Committee may adjust downwards, but not upwards, the number of shares payable pursuant to such Performance Award, and the Committee may not waive the achievement of the applicable performance measures except in the case of the death or disability of the Participant or a change in control of the Company or as otherwise determined by the Committee.

The Committee shall have the power to impose such other restrictions on Performance Awards as it may deem necessary or appropriate to ensure that such Performance Awards satisfy all requirements for Performance-Based Compensation.

## 14. RIGHTS AS A SHAREHOLDER

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No Participant to whom a Stock Right (other than a Stock Grant) has been granted shall have rights as a shareholder with respect to any Shares covered by such Stock Right, except as to Shares actually issued under the Plan.

## 15. EMPLOYMENT OR OTHER RELATIONSHIP

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Nothing in this Plan or any Stock Agreement shall be deemed to prevent the Company or an Affiliate from terminating the employment, consultancy or director status of a Participant, or to prevent a Participant from terminating his or her own employment, consultancy or director status or to give any Participant a right to be retained in employment or other service by the Company or any Affiliate for any period of time. The loss of existing or potential profit from a Stock Right will not constitute an element of damages in the event of a termination of employment or service for any reason, even if the termination is in violation of an obligation of the Company or any Affiliate.

## 16. DISSOLUTION OR LIQUIDATION OF THE COMPANY

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Upon the dissolution or liquidation of the Company (other than in connection with a transaction subject to the provisions of Section 17.2), all Stock Rights granted under this Plan which as of such date have not been exercised will terminate and become null and void; *provided, however*, that if the rights of a Participant or a Participant's Survivors have not otherwise terminated and expired, the Participant or Participant's Survivors will have the right immediately prior to such dissolution or liquidation to exercise any Stock Right to the extent that such Stock Right is exercisable as of the date immediately prior to such dissolution or liquidation. Upon the dissolution or liquidation of the Company, any outstanding Stock Rights shall immediately terminate unless otherwise determined by the Administrator or specifically provided in the applicable Stock Agreement.

## 17. ADJUSTMENTS

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Upon the occurrence of any of the following events, a Participant's rights with respect to any outstanding Stock Right shall be adjusted as hereinafter provided, unless otherwise specifically provided in the Stock Agreement or in any employment agreement between a Participant and the Company or an Affiliate:

**17.1 *Stock Dividends and Stock Splits.*** If the shares of Common Stock shall be subdivided or combined into a greater or smaller number of shares or if the Company shall issue any shares of Common Stock as a stock dividend on its outstanding Common Stock, the number of shares of Common Stock subject to or deliverable upon the vesting or exercise of a Stock Right shall be appropriately increased or decreased, and appropriate adjustments shall be made in the purchase or exercise price per Share to reflect such event. The number of Shares subject to the limitation in Section 13.1 shall also be adjusted upon the occurrence of such events.

**17.2 *Consolidations or Mergers.*** In the event of a consolidation or merger in which the Company is not the surviving corporation or which results in the acquisition of substantially all the Company's outstanding stock by a single person or entity or by a group of persons and/or entities acting in concert, or in the event of the sale or transfer of substantially all the Company's assets (any of the foregoing, an "**Acquisition**"), all then outstanding Stock Rights (excluding any Shares subject to Stock Grants as to which all Company repurchase rights shall have lapsed) shall terminate unless assumed pursuant to clause (i) below; provided that either (i) the Administrator shall provide for the surviving or acquiring entity or an affiliate thereof to assume the outstanding Stock Rights or grant replacement Stock Rights in lieu thereof, any such replacement to be upon an equitable basis as determined by the Administrator, or (ii) if there is no such assumption or substitution, all outstanding Stock Rights shall become immediately and fully exercisable and all Company repurchase rights with respect to Stock Rights shall lapse, in each case immediately prior to the Acquisition, notwithstanding any restrictions or vesting conditions set forth therein.

**17.3 *Recapitalization or Reorganization.*** In the event of a recapitalization or reorganization of the Company (other than a transaction described in Section 17.2 above) pursuant to which securities of the Company or of another corporation are issued with respect to the outstanding shares of Common Stock, a Participant upon exercising a Stock Right shall be entitled to receive for the purchase price paid upon such exercise the securities he or she would have received if he or she had exercised such Stock Right immediately prior to such recapitalization or reorganization.

**17.4 *Adjustments to Shares, Stock Grants and Stock-Based Awards.*** Upon the happening of any of the events described in Sections 17.1, 17.2 or 17.3, or other change in the Company's capital structure that constitutes an equity restructuring within the meaning of the Accounting Rules, the maximum number of Shares specified in Section 3, the number of Shares subject to the limits in Section 13.1, any exercise price per Share of any Stock Right, any outstanding Stock-Based Award and the Shares subject to any Stock Grant, vested or unvested, shall be appropriately adjusted by the Administrator to reflect such events. The Administrator may also make adjustments of the type described above to take into account distributions to stockholders other than those provided for in Sections 17.1, 17.2 or 17.3, or any other event, if the Administrator determines that adjustments are appropriate to avoid distortion in the operation of the Plan. The Administrator shall determine the specific adjustments to be made under this Section 17.4. References in the Plan to Shares will be construed to include any stock or securities resulting from an adjustment pursuant to this Section 17.4.

**17.5 *Modification of ISOs.*** Notwithstanding the foregoing, any adjustments made pursuant to Section 17.1, 17.2 or 17.3 with respect to ISOs shall be made only after the Administrator determines whether such adjustments would constitute a "modification" of such ISOs (as that term is defined in Section 424(h) of the Code) or would cause any adverse tax consequences for the holders of such ISOs. If the Administrator determines that such adjustments made with respect to ISOs would constitute a modification of such ISOs, it may refrain from making such adjustments, unless the holder of an ISO specifically consents in writing to such adjustment be made and such writing indicates that the holder has full knowledge of the consequences of such "modification" on his or her income tax treatment with respect to the ISO.

## 18. ISSUANCES OF SECURITIES

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Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of Shares subject to Stock Rights. Except as expressly provided herein, no adjustments shall be made for dividends paid in cash or in property (including without limitation, securities) of the Company.

## 19. FRACTIONAL SHARES

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No fractional share shall be issued under the Plan and the person exercising any Stock Right shall receive from the Company cash in lieu of any such fractional share equal to the Fair Market Value thereof.

## 20. DIVIDEND EQUIVALENTS

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The Administrator may provide for the payment of amounts (on terms and subject to conditions established by the Administrator, including providing for the reinvestment of such amounts in the form of additional Stock Rights) in lieu of cash dividends or other cash distributions with respect to Common Stock subject to a Stock Right whether or not the holder of such Stock Right is otherwise entitled to share in the actual dividend or distribution in respect of such Stock Right; *provided, however*, that notwithstanding anything to the contrary in the Plan (a) any dividends or dividend equivalents relating to a Stock Right that, at the dividend payment date, remains subject to a risk of forfeiture (whether service-based or performance-based) shall be subject to the same risk of forfeiture as applies to the underlying Stock Right and (b) no dividends or dividend equivalents shall be payable with respect to Options or Stock Appreciation Rights prior to their exercise or settlement, as applicable.

## 21. WITHHOLDING

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The delivery, vesting and retention of Shares, cash or other property under a Stock Right are conditioned upon full satisfaction by the Participant of all tax withholding requirements with respect to the Stock Right. The Administrator shall prescribe such rules for the withholding of taxes with respect to any Stock Right as it deems necessary. The Administrator may withhold from the Participant's compensation or require that the Participant advance cash to the Company or an Affiliate the amount of such withholding and may hold back Shares from a Stock Right or permit a Participant to tender previously owned Shares in satisfaction of tax withholding requirements (but not in excess of the maximum withholding amount consistent with the award being subject to equity accounting treatment under the Accounting Rules). For purposes hereof, the Fair Market Value of any shares withheld for purposes of payroll withholding shall be determined in the manner provided in Section 1 above, as of the most recent practicable date prior to the date of grant, vesting, exercise or the date of the Disqualifying Disposition. If the Fair Market Value of the shares withheld is less than the amount of payroll withholdings required, the Participant may be required to advance the difference in cash to the Company or the Affiliate employer.

## 22. NOTICE TO COMPANY OF DISQUALIFYING DISPOSITION

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Each Employee who receives an ISO must agree to notify the Company in writing immediately after the Employee makes a "Disqualifying Disposition" of any Shares acquired pursuant to the exercise of an ISO. A Disqualifying Disposition is any disposition (as defined in Section 424(c) of the Code) of such Shares before the later of (a) two years from the date the Employee was granted the ISO, or (b) one year after the date the Employee acquired Shares by exercising the ISO. If the Employee has died before such Shares are sold, the notice provisions of this Section 22 shall not apply.

## 23. EFFECTIVE DATE; TERMINATION OF THE PLAN

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This Plan was adopted by the Board on April 13, 2017, subject to the approval of the Plan by the shareholders of the Company. The Plan will terminate on April 12, 2027. The Plan also may be terminated at an earlier date by vote of the Board of Directors. Termination of this Plan will not affect any Stock Rights granted or Stock Agreements executed prior to the effective date of such termination.



## 24. AMENDMENT OF THE PLAN; AMENDMENT OF STOCK RIGHTS

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The Plan may be amended by the Board of Directors or the Administrator, including, without limitation, to the extent necessary to qualify any or all outstanding Stock Rights granted under the Plan or Stock Rights to be granted under the Plan for favorable federal income tax treatment (including deferral of taxation upon exercise) as may be afforded incentive stock options under Section 422 of the Code, and to the extent necessary to qualify the shares issuable upon exercise of any outstanding Stock Rights granted, or Stock Rights to be granted, under the Plan for listing on any national securities exchange or quotation in any national automated quotation system of securities dealers. Any amendments to the Plan will be conditioned upon stockholder approval only to the extent, if any, such approval is required by law (including the Code) or applicable stock exchange requirements, as determined by the Administrator. No modification or amendment of the Plan shall adversely and materially affect a Participant's rights under a Stock Right previously granted to the Participant, without such Participant's consent.

In its discretion, the Administrator may amend any term or condition of any outstanding Stock Right, provided: (i) such term or condition is not prohibited by the Plan; (ii) if the amendment is materially adverse to the Participant, such amendment shall be made only with the consent of the Participant or the Participant's Survivors, as the case may be; and (iii) any such amendment of any ISO shall be made only after the Administrator determines whether such amendment would constitute a "modification" of any Stock Right which is an ISO (as that term is defined in Section 424(h) of the Code) or would cause any adverse tax consequences for the holder of such ISO (in which case, the Participant's or Participant's Survivors' consent to such amendment shall be required). Notwithstanding the foregoing, unless such action is approved by the Company's shareholders, the Company may not (except for adjustments permitted under Section 17 of this Plan) (1) amend any outstanding Option or Stock Appreciation Right granted under the Plan to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding Option or Stock Appreciation Right; (2) cancel any outstanding Option or Stock Appreciation Right (whether or not granted under the Plan) and grant in substitution therefor new Stock Rights under the Plan covering the same or a different number of shares of Common Stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled option or Stock Appreciation Right; or (3) cancel in exchange for a cash payment any outstanding Option or Stock Appreciation Right with an exercise price per share above the then-current Fair Market Value.

## 25. RECOVERY OF COMPENSATION

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The Administrator may provide in any case that outstanding Stock Rights (whether or not vested or exercisable) and the proceeds from the exercise or disposition of Stock Rights or Common Stock acquired under Stock Rights will be subject to forfeiture and disgorgement to the Company, with interest and other related earnings, if the Participant to whom the Stock Right was granted violates (i) a non-competition, non-solicitation, confidentiality or other restrictive covenant by which he or she is bound, or (ii) any Company policy applicable to the Participant that provides for forfeiture or disgorgement with respect to incentive compensation that includes Stock Rights under the Plan. In addition, the Administrator may require forfeiture and disgorgement to the Company of outstanding Stock Rights and the proceeds from the exercise or disposition of Stock Rights or Common Stock acquired under Stock Rights, with interest and other related earnings, to the extent required by law or applicable stock exchange listing standards, including, without limitation, Section 10D of the Exchange Act, and any applicable Company policy. Each Participant, by accepting or being deemed to have accepted a Stock Right under the Plan, agrees to cooperate fully with the Administrator, and to cause any and all permitted transferees of the Participant to cooperate fully with the Administrator, to effectuate any forfeiture or disgorgement required hereunder. Neither the Administrator nor the Company nor any other person, other than the Participant and his or her permitted transferees, if any, will be responsible for any adverse tax or other consequences to a Participant or his or her permitted transferees, if any, that may arise in connection with this Section 25.

## 26. COMPLIANCE WITH SECTION 409A OF THE CODE

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Without limiting the generality of Section 4 hereof, each Stock Right will contain such terms as the Administrator determines and will be construed and administered, such that the Stock Right either qualifies for an exemption from the requirements of Section 409A of the Code or satisfies such requirements.

Notwithstanding Section 24 hereof or any other provision of this Plan or any Stock Agreement to the contrary, the Administrator may unilaterally amend, modify or terminate the Plan or any outstanding Stock Right, including but not limited to changing the form of the Stock Right, if the Administrator determines that such amendment, modification or termination is necessary or advisable to avoid the imposition of an additional tax, interest or penalty under Section 409A of the Code.

If a Participant is deemed on the date of the Participant's Termination of Service to be a "specified employee" within the meaning of that term under Section 409A(a)(2)(B) of the Code, then, with regard to any payment that is considered nonqualified deferred compensation under Section 409A of the Code, to the extent applicable, payable on account of a "separation from service", such payment will be made or provided on the date that is the earlier of (i) the expiration of the six-month period measured from the date of such "separation from service" and (ii) the date of the Participant's death (the "Delay Period"). Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 26 (whether they would have otherwise been payable in a single lump sum or in installments in the absence of such delay) will be paid on the first business day following the expiration of the

Delay Period in a lump sum and any remaining payments due under the Stock Right will be paid in accordance with the normal payment dates specified for them in the applicable Stock Agreement.

For purposes of Section 409A of the Code, each payment made under this Plan will be treated as a separate payment.

With regard to any payment considered to be nonqualified deferred compensation under Section 409A of the Code, to the extent applicable, that is payable upon a change in control of the Company or other similar event, to avoid the imposition of an additional tax, interest or penalty under Section 409A of the Code, no amount will be payable unless such change in control constitutes a "change in control event" within the meaning of Section 1.409A-3(i)(5) of the Treasury Regulations.

## **27. AUTHORIZATION OF SUB-PLANS**

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The Board of Directors may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable securities, tax or other laws of various jurisdictions. The Board of Directors shall establish such sub-plans by adopting supplements to the Plan containing (i) such limitations on the Board of Director's discretion under the Plan as the Board of Directors deems necessary or desirable or (ii) such additional terms and conditions not otherwise inconsistent with the Plan as the Board of Directors shall deem necessary or desirable. All supplements adopted by the Board of Directors shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Company shall not be required to provide copies of any supplement to Participants in any jurisdiction that is not the subject of such supplement.

## **28. GOVERNING LAW**

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This Plan, Stock Rights under the Plan and all claims or disputes arising out of or based upon the Plan or Stock Rights under the Plan or relating to the subject matter hereof or thereof shall be construed and enforced in accordance with the laws of The Commonwealth of Massachusetts without giving effect to any choice or conflict of laws provision or rule that would cause the application of the domestic substantive laws of any other jurisdiction.

By accepting or being deemed to have accepted a Stock Right under the Plan, each Participant will be deemed to (a) have submitted irrevocably and unconditionally to the jurisdiction of the federal and state courts located within the geographic boundaries of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon the Plan or any Stock Right; (b) agree not to commence any suit, action or other proceeding arising out of or based upon the Plan or a Stock Right, except in the federal and state courts located within the geographic boundaries of the United States District Court for the District of Massachusetts; and (c) waive, and agree not to assert, by way of motion as a defense or otherwise, in any such suit, action or proceeding, any claim that he or she is not subject personally to the jurisdiction of the above-named courts that his or her property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that the Plan or a Stock Right or the subject matter thereof may not be enforced in or by such court.

By accepting or being deemed to have accepted a Stock Right under the Plan, to the extent permitted by applicable law, each Participant waives any right to a trial by jury in any action, proceeding or counterclaim concerning any rights under the Plan and any Stock Right, or under any amendment, waiver, consent, instrument, document or other agreement delivered or which in the future may be delivered in connection therewith, and agrees that any such action, proceedings or counterclaim will be tried before a court and not before a jury. By accepting or being deemed to have accepted a Stock Right under the Plan, each Participant certifies that no officer, representative, or attorney of the Company has represented, expressly or otherwise, that the Company would not, in the event of any action, proceeding or counterclaim, seek to enforce the foregoing waivers. Notwithstanding anything to the contrary in the Plan, nothing herein is to be construed as limiting the ability of the Company and a Participant to agree to submit disputes arising under the terms of the Plan or any Stock Right made hereunder to binding arbitration or as limiting the ability of the Company to require any eligible individual to agree to submit such disputes to binding arbitration as a condition of receiving a Stock Right hereunder.









▼ PLEASE FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

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**Proxy — Vertex Pharmaceuticals Incorporated**

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**ANNUAL MEETING OF SHAREHOLDERS — JUNE 8, 2017**

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS**

The undersigned does hereby constitute and appoint Jeffrey M. Leiden, Ian F. Smith, Michael Parini and Michael J. LaCascia, and each of them, the attorney(s) and proxy of the undersigned, with full power of substitution, with all the powers that the undersigned would possess if personally present, to vote all stock of Vertex Pharmaceuticals Incorporated that the undersigned is entitled to vote at the Annual Meeting of Shareholders of Vertex Pharmaceuticals Incorporated to be held at 50 Northern Avenue, Boston, Massachusetts, on Thursday, June 8, 2017 at 9:30 A.M. and at any postponements or adjournments thereof, hereby acknowledging receipt of the proxy statement for such meeting and revoking all previous proxies.

This proxy, when properly executed, will be voted as directed. If no direction is made, this proxy will be voted FOR each of the nominees and proposals 2 through 5, for conducting future advisory votes on executive compensation ANNUALLY, and AGAINST proposals 7 and 8 and, in the case of other matters that legally come before the meeting or any postponement or adjournment thereof, as said proxies may deem advisable.

Please vote, sign and date on the reverse side and return this proxy card promptly using the enclosed envelope.

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