

**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 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under §240.14a-12

ACCELERON PHARMA INC.

(Name of Registrant as Specified In Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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

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

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

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

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

(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed:



Acceleron Pharma Inc.
128 Sidney Street
Cambridge, MA 02139

NOTICE OF 2017 ANNUAL MEETING OF STOCKHOLDERS

The 2017 Annual Meeting of Stockholders of Acceleron Pharma Inc. (the "Company" or "Acceleron") will be held on June 1, 2017, at 8:30 a.m. local time, at Ropes & Gray LLP, Prudential Tower, 800 Boylston Street, Boston, MA 02199, for the purpose of considering the following three company-sponsored proposals:

1. To elect Jean M. George, George Golumbeski, Ph.D., Thomas A. McCourt and Francois Nader, M.D. as Class I directors, each for a three-year term.
2. To approve, on an advisory basis, the compensation paid to our named executive officers as described in this proxy statement.
3. To ratify the selection of Ernst & Young LLP as the independent registered public accounting firm for the Company for the fiscal year ending December 31, 2017.

We will also consider and act upon any other matters that properly come before the Annual Meeting or any adjournment or postponement thereof.

Our Board of Directors recommends that you vote "for" each of the nominees for Class I director (proposal no. 1), "for" approval, on an advisory basis, of the compensation paid to our named executive officers as described in this proxy statement (proposal no. 2), and "for" ratification of the proposed independent registered public accounting firm (proposal no. 3).

Each outstanding share of the Company's common stock (NASDAQ: XLRN) entitles the holder of record at the close of business on April 4, 2017, to receive notice of and to vote at the Annual Meeting or any adjournment or postponement of the Annual Meeting.

Whether or not you expect to attend the meeting, we urge you to vote your shares by following the instructions in the Important Notice Regarding the Availability of Proxy Materials that you previously received and submit your proxy by the Internet, telephone or by signing, dating and returning the proxy card included in these materials in order to ensure the presence of a quorum. If you choose to attend the Annual Meeting, you may still vote your shares in person, even if you have previously voted or returned your proxy by any of the methods described in our proxy statement. If your shares are held in a bank or brokerage account, please refer to the materials provided by your bank or broker for voting instructions.

All stockholders are extended a cordial invitation to attend the meeting.

By Order of the Board of Directors

A handwritten signature in black ink, appearing to read "Habib J. Dable", written in a cursive style.

Habib J. Dable
Chief Executive Officer, President and Director
April 13, 2017

TABLE OF CONTENTS

	<u>Page</u>
IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON JUNE 1, 2017	1
IMPORTANT INFORMATION ABOUT THE ANNUAL MEETING AND VOTING	1
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	5
MANAGEMENT AND CORPORATE GOVERNANCE	7
COMPENSATION DISCUSSION AND ANALYSIS	16
EXECUTIVE OFFICER AND DIRECTOR COMPENSATION	32
COMPENSATION COMMITTEE REPORT	42
AUDIT COMMITTEE REPORT	43
SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE	44
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS	44
PROPOSAL NO. 1—ELECTION OF DIRECTORS	45
PROPOSAL NO. 2—ADVISORY VOTE ON EXECUTIVE COMPENSATION	46
PROPOSAL NO. 3—RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	47
GENERAL MATTERS	49

Accelaron Pharma Inc.

128 Sidney Street
Cambridge, MA 02139

PROXY STATEMENT FOR 2017 ANNUAL MEETING OF STOCKHOLDERS

To Be Held On Thursday, June 1, 2017 at 8:30 am ET

This proxy statement, along with the accompanying Notice of 2017 Annual Meeting of Stockholders, contains information about the 2017 Annual Meeting of Stockholders of Accelaron Pharma Inc., which we refer to as the Annual Meeting, including any adjournments or postponements of the Annual Meeting. We are holding the Annual Meeting at 8:30 a.m. local time, at Ropes & Gray LLP, Prudential Tower, 800 Boylston Street, Boston, MA 02199.

In this proxy statement, we refer to Accelaron Pharma Inc. as "Accelaron," "the Company," "we" and "us."

This proxy statement relates to the solicitation of proxies by our Board of Directors for use at the Annual Meeting.

On or about April 13, 2017, we made available this proxy statement and the attached Notice of 2017 Annual Meeting of Stockholders to all stockholders entitled to vote at the Annual Meeting, and we began sending the proxy card and the Important Notice Regarding the Availability of Proxy Materials to all stockholders entitled to vote at the Annual Meeting. Although not part of this proxy statement, we have also made available with this proxy statement our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (the "Annual Report"), which includes our financial statements for the fiscal year ended December 31, 2016.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON JUNE 1, 2017

This proxy statement and our Annual Report are available for viewing, printing and downloading at www.proxyvote.com. To view these materials, please have your 16-digit control number(s) available that appears on your proxy card.

Additionally, you can find a copy of our Annual Report on the website of the Securities and Exchange Commission, or the SEC, at www.sec.gov, or in the "Annual Meeting" tab of the "Investors/Media" section of our website at www.accelaronpharma.com. You may also obtain a printed copy of our Annual Report, free of charge, by sending a written request to: Accelaron Pharma Inc., 128 Sidney Street, Cambridge, MA 02139, Attention: Secretary. Exhibits, if any, will be provided upon written request and payment of an appropriate processing fee.

IMPORTANT INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

Why is the Company Soliciting My Proxy?

The Board of Directors of Accelaron Pharma Inc. is soliciting your proxy to vote at the 2017 Annual Meeting of Stockholders to be held at 8:30 a.m. local time on June 1, 2017, at Ropes & Gray LLP, Prudential Tower, 800 Boylston Street, Boston, MA 02199, and any adjournments of the meeting, which we refer to as the Annual Meeting. The proxy statement along with the accompanying Notice of 2017 Annual Meeting of Stockholders summarizes the purposes of the meeting and the information you need to know to vote at the Annual Meeting.

We have made available to you on the Internet or have sent you this proxy statement, the Notice of 2017 Annual Meeting of Stockholders, the proxy card and a copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 because you owned shares of Accelaron Pharma Inc. common stock on the record date.

When were this proxy statement and the accompanying materials sent to stockholders?

On or about April 13, 2017, we began sending the Important Notice Regarding the Availability of Proxy Materials to all stockholders entitled to vote at the Annual Meeting.

When is the record date for the Annual Meeting?

The Company's Board of Directors has fixed the record date for the Annual Meeting as of the close of business on April 4, 2017. Only stockholders who owned our common stock at the close of business on April 4, 2017 are entitled to vote at the Annual Meeting.

How many votes can be cast by all stockholders?

A total of 38,613,892 shares of common stock of the Company were outstanding on April 4, 2017 and are entitled to be voted at the meeting. Each share of common stock is entitled to one vote on each matter.

How do I vote?

If you are a stockholder of record and your shares are registered directly in your name, you may vote:

- **By Internet.** You may vote by proxy via the Internet at www.proxyvote.com by following the instructions provided on the Important Notice Regarding the Availability of Proxy Materials or the proxy card.
- **By Telephone.** If you live in the United States or Canada, you may vote by proxy by calling toll-free 1-800-690-6903 and by following the instructions provided on the proxy card. You must have the 16-digit control number that is on either the notice or the proxy card when voting.
- **By Mail.** Complete and mail your proxy card in the postage prepaid envelope you receive, and return the proxy card to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. Your proxy will be voted in accordance with your instructions. If you sign and return the enclosed proxy but do not specify how you want your shares voted, they will be voted as recommended by our Board of Directors and according to the discretion of the proxy holder named in the proxy card upon any other business that may properly be brought before the meeting and at all adjournments and postponements thereof.
- **In Person at the Meeting.** If you attend the meeting, be sure to bring a form of personal picture identification with you, and you may deliver your completed proxy card in person, or you may vote by completing a ballot, which will be available at the meeting.

If your shares of common stock are held in street name (held for your account by a broker or other nominee):

- **By Internet or By Telephone.** You will receive instructions from your broker or other nominee if you are permitted to vote by Internet or telephone.
- **By Mail.** You will receive instructions from your broker or other nominee explaining how to vote your shares.
- **In Person at the Meeting.** If you attend the meeting, in addition to picture identification, you should both bring an account statement or a letter from the record holder indicating that you owned the shares as of the record date, *and* contact the broker or other nominee who holds your shares to obtain a broker's proxy card and bring it with you to the meeting.

What are the Board's recommendations on how to vote my shares?

The Board of Directors recommends a vote:

- Proposal 1: FOR election of Jean M. George, George Golumbeski, Ph.D., Thomas A. McCourt and Francois Nader, M.D. as Class I directors.
- Proposal 2: FOR approval, on an advisory basis, of the compensation paid to our named executive officers as described in this proxy statement.
- Proposal 3: FOR ratification of selection of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2017.

Who pays the cost for soliciting proxies?

Acceleron will bear the cost of solicitation of proxies. This includes the charges and expenses of brokerage firms and others for forwarding solicitation material to beneficial owners of our outstanding common stock. Acceleron may solicit proxies by mail, personal interview, telephone or via the Internet through its officers, directors and other management employees, who will receive no additional compensation for their services.

Can I change my vote?

You may revoke your proxy at any time before it is voted by notifying the Secretary in writing, by returning a signed proxy with a later date, by transmitting a subsequent vote over the Internet or by telephone prior to the close of the Internet voting

facility or the telephone voting facility, or by attending the meeting and voting in person. If your stock is held in street name, you must contact your broker or nominee for instructions as to how to change your vote.

How is a quorum reached?

The presence, in person or by proxy, of holders of at least a majority of the total number of outstanding shares entitled to vote is necessary to constitute a quorum for the transaction of business at the Annual Meeting. Abstentions and "broker non-votes" (i.e., shares represented at the meeting held by brokers, bankers or other nominees as to which instructions have not been received from the beneficial owners or persons entitled to vote such shares and, with respect to one or more but not all issues, such brokers or nominees do not have discretionary voting power to vote such shares), if any, will be counted for purposes of determining whether a quorum is present for the transaction of business at the meeting.

What vote is required to approve each item?

<p>Proposal 1: Elect Directors</p>	<p>As this is an uncontested election of directors, each director nominee must receive a greater number of shares voted FOR his or her election than shares voted to WITHHOLD from such election (also known as a "majority" of the votes cast) to be elected a director. You may vote either FOR all of the nominees, WITHHOLD your vote from all of the nominees or WITHHOLD your vote from any one or more of the nominees. Abstentions will have no effect on the results of this vote. Brokerage firms do not have authority to vote customers' unvoted shares held by the firms in street name for the election of directors. As a result, any shares not voted by a customer will be treated as a broker non-vote. Such broker non-votes will have no effect on the results of this vote.</p>
<p>Proposal 2: Approve, on an Advisory Basis, the Compensation Paid to Our Named Executive Officers</p>	<p>The affirmative vote of a majority of the shares cast affirmatively or negatively for this proposal is required to approve, on an advisory basis, the compensation of our named executive officers as described in this proxy statement. Abstentions will have no effect on the results of this vote. Brokerage firms do not have authority to vote customers' unvoted shares held by the firms in street name on this proposal. As a result, any shares not voted by a customer will be treated as a broker non-vote. Such broker non-votes will have no effect on the results of this vote. Although the advisory vote is non-binding, the Compensation Committee and the Board of Directors will review the voting results and take them into consideration when making future decisions regarding executive compensation.</p>
<p>Proposal 3: Ratify Selection of our Independent Registered Public Accounting Firm</p>	<p>The affirmative vote of a majority of the shares cast affirmatively or negatively for this proposal is required to ratify the selection of our independent registered public accounting firm. Abstentions will have no effect on the results of this vote. Brokerage firms have authority to vote customers' unvoted shares held by the firms in street name on this proposal. If a broker does not exercise this authority, such broker non-votes will have no effect on the results of this vote. We are not required to obtain the approval of our stockholders to select our independent registered public accounting firm. However, if our stockholders do not ratify the selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017, the Audit Committee of the Board of Directors will reconsider its selection.</p>

If there are insufficient votes to approve these proposals, your proxy may be voted by the persons named in the proxy card to adjourn the Annual Meeting in order to solicit additional proxies in favor of the approval of such proposal(s). If the Annual Meeting is adjourned or postponed for any purpose, at any subsequent reconvening of the meeting, your proxy will be voted in the same manner as it would have been voted at the original convening of the Annual Meeting unless you withdraw or revoke your proxy.

Could other matters be decided at the Annual Meeting?

Acceleron does not know of any other matters that may be presented for action at the Annual Meeting. Should any other business come before the meeting, the persons named on the enclosed proxy will have discretionary authority to vote the shares represented by such proxies in accordance with their best judgment. If you hold shares through a broker, bank or other nominee

as described above, they will not be able to vote your shares on any other business that comes before the Annual Meeting unless they receive instructions from you with respect to such matter.

What happens if the meeting is postponed or adjourned?

Your proxy may be voted at the postponed or adjourned meeting. You will still be able to change your proxy until it is voted.

What does it mean if I receive more than one proxy card or voting instruction form?

It means that you have multiple accounts at the transfer agent or with brokers. Please complete and return all proxy cards or voting instruction forms to ensure that all of your shares are voted.

Who should I call if I have any additional questions?

If you hold your shares directly, please call John Quisel, Secretary of the Company, at (617) 649-9200. If your shares are held in street name, please contact the telephone number provided on your voting instruction form or contact your broker or nominee holder directly.

Electronic Delivery of Company Stockholder Communications

Most stockholders can elect to view future proxy materials and annual reports over the Internet instead of receiving paper copies in the mail. You can choose this option and save Acceleron the cost of producing and mailing these documents by following the instructions provided when you vote over the Internet.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information as of March 31, 2017 (unless otherwise specified), with respect to the beneficial ownership of our common stock by each person who is known to own beneficially more than 5% of the outstanding shares of common stock, each person currently serving as a director, each nominee for director, each named executive officer (as set forth in the Summary Compensation Table below), and all directors and executive officers as a group.

Shares of common stock subject to options, restricted stock units or other rights to purchase which are now exercisable or are exercisable within 60 days after March 31, 2017 are to be considered outstanding for purposes of computing the percentage ownership of the persons holding these options or other rights but are not to be considered outstanding for the purpose of computing the percentage ownership of any other person. As of March 31, 2017, there were 38,596,062 shares of common stock outstanding. Unless otherwise indicated, the address for each beneficial owner is c/o Acceleron Pharma Inc., 128 Sidney Street, Cambridge, MA 02139.

Name and address of beneficial owner	Number of shares beneficially owned	Percentage of shares beneficially owned
5% or greater stockholders:		
Celgene Corporation(1)	5,411,866	14.0%
FMR LLC and affiliates(2)	5,244,453	13.6%
T. Rowe Price Associates, Inc.(3)	3,964,618	10.3%
Blackrock, Inc. and subsidiaries(4)	3,512,821	9.1%
Directors and named executive officers:		
Habib J. Dable	—	—
John L. Knopf, Ph.D.(5)	332,540	*
Jean M. George(6)	145,122	*
George Golumbeski, Ph.D.	—	—
Terrence C. Kearney(7)	32,998	*
Tom Maniatis, Ph.D.(8)	181,731	*
Thomas A. McCourt(9)	5,000	*
Terrance G. McGuire(10)	40,000	*
Francois Nader, M.D.(11)	32,243	*
Richard F. Pops(12)	118,750	*
Joseph S. Zakrzewski(13)	62,750	*
Steven D. Ertel(14)	155,105	*
Ravindra Kumar, Ph.D.(15)	95,846	*
Kevin F. McLaughlin(16)	120,733	*
Matthew L. Sherman, M.D.(17)	131,332	*
All executive officers and directors as a group (16 persons)(18)	1,526,529	3.9%

* Represents beneficial ownership of less than one percent of our outstanding common stock.

(1) This information is based solely on a Schedule 13D/A filed by Celgene Corporation ("Celgene") on January 11, 2016, reporting ownership as of January 11, 2016. According to this Schedule 13D/A, these shares include 38,979 shares of common stock that can be acquired upon the exercise of warrants to purchase shares of our common stock, and Celgene exercises sole voting and sole dispositive authority over all of these shares. The address of Celgene is 86 Morris Avenue, Summit, NJ 07901.

(2) This information is based solely on a Schedule 13G/A filed jointly by FMR LLC ("FMR"), Abigail P. Johnson, and Select Biotechnology Portfolio ("Select") on February 14, 2017, reporting ownership as of December 31, 2016. According to this Schedule 13G/A, Ms. Johnson is a Director, the Chairman and the Chief Executive Officer of FMR LLC. Members of the Johnson family, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. FMR exercises sole voting authority over 16,557 shares of our common stock, and FMR and Ms. Johnson each exercise sole dispositive authority over 5,244,453 shares of our common stock. Select exercises sole voting authority over 3,669,602 shares of our common stock and no dispositive authority of any of our shares of common stock. The address of FMR, Ms. Johnson and Select is 245 Summer Street, Boston, Massachusetts 02210.

- (3) This information is based solely on a Schedule 13G/A filed by T. Rowe Price Associates, Inc. ("T. Rowe") on February 10, 2017, reporting ownership as of January 31, 2017. According to this Schedule 13G/A, T. Rowe exercises sole voting power over 694,688 shares of our common stock and sole dispositive power over 3,964,618 shares of our common stock. The address of T. Rowe is 100 E. Pratt Street, Baltimore, Maryland 21202.
- (4) This information is based solely on a Schedule 13G/A filed by Blackrock, Inc. ("Blackrock") on January 19, 2017, reporting ownership as of December 31, 2016 for Blackrock and its subsidiaries. According to this Schedule 13G/A, Blackrock exercises sole voting power over 3,459,233 shares of our common stock, and sole dispositive power over 3,512,821 shares of our common stock. The address of Blackrock is 55 East 52nd Street, New York, New York 10055.
- (5) Includes 224,956 shares of common stock that can be acquired upon the exercise of outstanding options. Dr. Knopf retired as Chief Executive Officer and President of the Company effective as of November 30, 2016. He remains Chair of the Company's Scientific Advisory Board and a consultant to the Company.
- (6) Includes (i) 98,674 shares of common stock owned by Advanced Technology Ventures VII, L.P. ("ATV VII"), (ii) 3,959 shares of common stock owned by Advanced Technology Ventures VII (B), L.P. ("ATV VII B"), (iii) 1,902 shares of common stock owned by Advanced Technology Ventures VII (C), L.P. ("ATV VII C"), and (iv) 587 shares of common stock owned by ATV Entrepreneurs VII, L.P. ("ATV VII E"). ATV Associates VII, L.L.C. ("ATV A VII") is the general partner of ATV VII, ATV VII B, ATV VII C and ATV VII E and exercises voting and dispositive authority over the shares held by ATV VII, ATV VII B, ATV VII C and ATV VII E. Voting and dispositive decisions of ATV A VII are made by Ms. George and ATV A VII's other managing directors. Ms. George disclaims beneficial ownership of the shares held by ATV VII, ATV VII B, ATV VII C and ATV VII E except to the extent of her pecuniary interest therein. Also includes 40,000 shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Ms. George.
- (7) Consists of shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Mr. Kearney.
- (8) Includes 67,500 shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Dr. Maniatis.
- (9) Consists of shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Mr. McCourt.
- (10) Consists of shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Mr. McGuire.
- (11) Consists of shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Dr. Nader.
- (12) Includes 90,000 shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Mr. Pops.
- (13) Includes 58,750 shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Mr. Zakrzewski.
- (14) Includes 93,028 shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Mr. Ertel.
- (15) Includes 51,419 shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Dr. Kumar.
- (16) Includes 93,233 shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Mr. McLaughlin.
- (17) Includes 8,500 shares of common stock beneficially owned by Dr. Sherman through an irrevocable trust of which Dr. Sherman's wife is a trustee, and 76,332 shares of common stock that can be acquired upon the exercise of options exercisable within 60 days of March 31, 2017 held by Dr. Sherman.
- (18) See footnotes 5 through 17. Also includes 61,256 shares of common stock that can be acquired upon the exercise of outstanding options.

MANAGEMENT AND CORPORATE GOVERNANCE

BOARD COMPOSITION AND STRUCTURE

Our certificate of incorporation states that the Board of Directors shall consist of not fewer than three and not more than fifteen members, and the precise number of directors shall be fixed by a resolution of the Board of Directors. Each director holds office until his or her successor is duly elected and qualified or until his or her death, resignation or removal. Our certificate of incorporation provides that our directors may be removed only for cause by the affirmative vote of the holders of at least seventy-five percent (75%) of the voting power of the outstanding shares of capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class, at a meeting of the stockholders called for that purpose. Any vacancy in the Board of Directors, including a vacancy that results from an increase in the number of directors, may be filled by a vote of the majority of the directors then in office.

Our certificate of incorporation provides that the Board of Directors is divided into three classes of directors, with the classes as nearly equal in number as possible. Each of our directors identified below serves in the class indicated. Subject to any earlier resignation or removal in accordance with the terms of our restated certificate of incorporation and bylaws, our Class I directors who are re-elected at the 2017 annual meeting of stockholders will serve until the 2020 annual meeting of stockholders; our Class II directors will serve until the 2018 annual meeting of stockholders; and our Class III directors will serve until the 2019 annual meeting of stockholders. Any additional directorships resulting from an increase in the number of directors will be apportioned by the Board among the three classes.

The Board of Directors is currently comprised of ten members. Below is a list of the names, ages as of March 31, 2017 and classification of the individuals who currently serve as our directors.

Name	Age	Position
Jean M. George	59	Director (Class I)
George Golumbeski, Ph.D.	59	Director (Class I)
Thomas McCourt	59	Director (Class I)
Francois Nader, M.D.	60	Chair of the Board of Directors (Class I)
Habib J. Dable	47	Director (Class II); Chief Executive Officer and President
Terrence C. Kearney	62	Director (Class II)
Terrance G. McGuire	61	Director (Class II)
Tom Maniatis, Ph.D.	73	Director (Class III)
Richard F. Pops	55	Director (Class III)
Joseph S. Zakrzewski	54	Director (Class III)

DIRECTOR BIOGRAPHIES

Information concerning our directors is set forth below. The biographical description of each director includes the specific experience, qualifications, attributes and skills that led to the Board of Directors' conclusion at the time of filing of this proxy statement that each person listed below should serve as a director.

CLASS I DIRECTOR NOMINEES

Jean M. George has served as a member of our Board of Directors since 2005. Since 2002, Ms. George has been a Managing Director at Advanced Technology Ventures (ATV), and, concurrently since April 2013, Ms. George has been a Managing Director at Lightstone Ventures. She joined ATV in 2002 and serves as the firm's East Coast lead partner for healthcare investments. Prior to joining ATV, Ms. George was a director at BancBoston Ventures, where she led the health care team's investment activity in NuGenesis Technologies Corp., Ironwood Pharmaceuticals, Inc., Syntonix Pharmaceuticals, Inc. and Neurometrix, Inc. Before BancBoston Ventures, she worked at Genzyme Corporation from 1988 to 1998, where she held a variety of operational roles in marketing, product development, and business development, including Vice President of Global Sales and Marketing. She also worked as a Vice President and Founder of Genzyme's Tissue Repair Division. She is currently a director of public companies Catabasis Pharmaceuticals, Inc. and Calithera Biosciences, Inc., as well as several private companies, including Hydra Biosciences, Inc., Thrasos Therapeutics, Inc. and Tizona Therapeutics. Ms. George was a director of Zeltiq Aesthetics, Inc., Hynion, Inc., Critical Therapeutics, Inc., Portola Pharmaceuticals, Inc. and Proteolix, Inc. She was named a member of the Scientific Advisory Board for the Massachusetts Life Sciences Center. Ms. George received a BS in biology from the University of Maine and an MBA from Simmons College Graduate School of Management. We believe that

Ms. George's executive experience in the life sciences and therapeutic device industries qualifies her to serve as a member of our Board of Directors.

George Golumbeski, Ph.D. has served as a member of our Board of Directors since 2011. Dr. Golumbeski, who joined Celgene in early 2009, is Executive Vice President of Business Development, where he is responsible for the full array of business development activities, including identification and evaluation of opportunities, structuring and negotiating transactions, in-licensing, M&A, out-licensing, and alliance management. At Celgene, these activities are focused primarily within the therapeutic areas of oncology and inflammation. Since 2014, Dr. Golumbeski has served on the board of directors of one other public company, Enanta Pharmaceuticals, Inc., and has served as a trustee of the Keck Graduate Institute since 2013. Dr. Golumbeski has also served as a member of the board of directors of the National Audubon Society since 2015. From 2008 to 2009, Dr. Golumbeski served as the CEO of Nabriva Therapeutics AG. Prior to Nabriva, Dr. Golumbeski served as Vice President of Business Development, Licensing and Strategy for Novartis-Oncology. During his tenure at Novartis, Dr. Golumbeski's group closed a significant number of collaboration agreements which bolstered the development pipeline. Earlier in his career, Dr. Golumbeski held senior positions at Elan Pharmaceuticals and at Schwarz Pharma, where he led the effort to in-license rotigotine and lacosamide (now both approved agents). Dr. Golumbeski received a BA in biology from the University of Virginia and a Ph.D. in genetics from the University of Wisconsin-Madison. We believe that Dr. Golumbeski's experience as an officer of other pharmaceutical companies, as well as Dr. Golumbeski's extensive experience in research and development and corporate leadership positions, qualify him to serve as a member of our Board of Directors.

Thomas A. McCourt has served as a member of our Board of Directors since July 2016. Mr. McCourt has served as the senior vice president of marketing and sales and chief commercial officer of Ironwood Pharmaceuticals, Inc. since joining Ironwood in 2009. Prior to joining Ironwood, Mr. McCourt left the U.S. brand team for denosumab at Amgen Inc. from April 2008 to August 2009. Prior to that, Mr. McCourt was with Novartis AG from 2001 to 2008, where he directed the launch and growth of Zelnorm for the treatment of patients with IBS-C and CIC and held a number of senior commercial roles, including vice president of strategic marketing and operations. Mr. McCourt was also part of the founding team at Astra Merck Inc., leading the development of the medical affairs and science liaison group and then serving as brand manager for Prilosec™ and NEXIUM®. Mr. McCourt has a degree in pharmacy from the University of Wisconsin. We believe that Mr. McCourt's commercial leadership experience and industry experience working for many well established companies qualify him to serve as a member of our Board of Directors.

Francois Nader, M.D. has served as a member of our Board of Directors since December 2014, and has served as the Chair of our Board of Directors since March 2015. Since February 2015, Dr. Nader has served as the chief executive officer of Jesra Advisors, LLC, a consulting services company founded by Dr. Nader. He served as the President and Chief Executive Officer of NPS Pharmaceuticals, Inc., or NPS, from 2008 through February 2015 when NPS was acquired by Shire plc. Dr. Nader joined NPS in 2006 and served as Executive Vice President and Chief Operating Officer until 2008. He has served as a director of Clementia Pharmaceuticals, Inc. since March 2014 and a director of Baxalta, Inc. since July 2015 and sits on their audit, compensation, and transaction committees. Before joining NPS, Dr. Nader was a venture partner at Care Capital, LLC, where he served as Chief Medical Officer of its Clinical Development Capital unit from 2005 to 2006. From 2000 to 2004, he served as Senior Vice President, Integrated Healthcare Markets and Senior Vice President, North America Medical and Regulatory Affairs with Aventis Pharmaceuticals. He also held similar positions at Hoechst Marion Roussel and served as Head of Global Commercial Operations at the Pasteur Vaccines division of Rhone-Poulenc. Dr. Nader is the immediate past Chair of the Board of BioNJ, a trade association representing the biotechnology industry in New Jersey, and a Board member of the New Jersey Chamber of Commerce. He previously served as a director of Noven Pharmaceuticals and Trevena, Inc., where he also chaired the compensation committee. Dr. Nader received a French State Doctorate in Medicine from St. Joseph University (Lebanon) and a Physician Executive M.B.A. from the University of Tennessee. We believe Dr. Nader's extensive experience in the life sciences industry and his background in research and development qualify him to serve as a member of our Board of Directors.

CURRENT DIRECTORS NOT STANDING FOR ELECTION AT THE ANNUAL MEETING

Habib J. Dable has served as our Chief Executive Officer and President and a member of our Board of Directors since December 2016. Mr. Dable is a seasoned pharmaceutical executive, with experience in maximizing the potential of new therapies and successfully implementing innovative U.S. and global product launches. Since 1994, Mr. Dable has served in roles of increasing responsibility at Bayer AG, serving since October 2015 as the President of Pharmaceuticals for Bayer in the U.S. From 2013 to 2015, Mr. Dable served as the Executive Vice President and Global Head of Specialty Medicine for Bayer HealthCare Pharmaceuticals, and from 2010 to 2012, he was the Vice President of Ophthalmology & Global Launch Team Head for EYLEA. Mr. Dable earned both Bachelor's and Master's degrees of Business Administration from the University of New Brunswick in Canada. We believe Mr. Dable's executive leadership experience and industry knowledge qualify him to serve as a member of our Board of Directors.

Terrence C. Kearney has served as a member of our Board of Directors since July 2014. Mr. Kearney has served as a member of the board of directors of Vertex Pharmaceuticals Incorporated since 2011 and as a member of the board of directors of AveXis, Inc. since January, 2016. Mr. Kearney previously served as a member of the board of directors of Innoviva, Inc. (formerly Theravance, Inc.) from 2014 to 2016, and as the Chief Operating Officer of Hospira, Inc., a specialty pharmaceutical and medication delivery company, from 2006 to 2011. From 2004 to 2006, he served as Hospira's Senior Vice President, Finance, and Chief Financial Officer, and he served as Acting Chief Financial Officer through 2006. Mr. Kearney served as Vice President and Treasurer of Abbott Laboratories from 2001 to 2004. From 1996 to 2001, Mr. Kearney was Divisional Vice President and Controller for Abbott's International Division. He received a BS in biology from the University of Illinois and an MBA from the University of Denver. We believe that Mr. Kearney's extensive experience as a director and officer of many biotechnology companies and his financial expertise qualify him to serve as a member of our Board of Directors.

Tom Maniatis, Ph.D. co-founded Acceleron in 2003 and has served as a member of our Board of Directors since our inception. Dr. Maniatis is currently a member of our Scientific Advisory Board and served as the Chair of our Scientific Advisory Board from 2003 to 2016. He is currently a Professor and Chair of the Department of Biochemistry & Molecular Biophysics at the Columbia University College of Physicians and Surgeons. Dr. Maniatis also currently serves on the board of a private company, Kallyope, Inc. Prior to 2010 he was a professor of Molecular and Cellular Biology at Harvard University. Prior to that Dr. Maniatis was a co-founder of Genetics Institute (1980) and ProScript Inc., and in both companies he chaired the scientific advisory board and served on the board of directors. Dr. Maniatis is a member of the U.S. National Academy of Sciences, the U.S. National Academy of Medicine, and has received numerous awards for his research contributions, including the Eli Lilly Research Award in Microbiology and Immunology, the Richard Lounsbery Award for Biology and Medicine from the U.S. and French National Academies of Science, and the 2012 Lasker-Koshland Special Achievement Award in Medical Science. Dr. Maniatis received a BA in biology, an MS in chemistry from the University of Colorado at Boulder, and a Ph.D. in molecular biology from Vanderbilt University. We believe Dr. Maniatis' extensive experience and knowledge of biopharmaceuticals and the biopharmaceutical industry qualify him to serve as a member of our Board of Directors.

Terrance G. McGuire has served as a member of our Board of Directors since 2005. Mr. McGuire co-founded Polaris Partners in 1996 and is currently one of their general partners. Prior to starting Polaris Partners, Mr. McGuire spent seven years at Burr, Egan, Deleage & Co., investing in early stage medical and information technology companies. He currently serves on the board of directors of two other public companies, Ironwood Pharmaceuticals, Inc. and Pulmatrix, Inc., and has previously served on the boards of public companies including: Trevena Inc., Akamai Technologies Inc., Aspect Medical Systems, Inc., Cubist Pharmaceuticals, Inc. and deCODE genetics, Inc. He also serves on the boards of several private companies, including Adimab/Arsanis, Alector, Quantum Designs, Arsenal Medical/480 Biomedical, Iora Health, and MicroCHIPS and has served on the boards of numerous other private companies. Mr. McGuire is the former chairman of the National Venture Capital Association, chairman of the board of the Thayer School of Engineering at Dartmouth College, and a member of the boards of The David H. Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology and The Arthur Rock Center for Entrepreneurship at Harvard Business School. Mr. McGuire earned a BS in physics and economics from Hobart College, an MS in engineering from The Thayer School at Dartmouth College, and an MBA from Harvard Business School. We believe that Mr. McGuire's extensive experience as a venture capitalist focused on the biotechnology industry, as well as Mr. McGuire's many years of experience helping companies evolve from the start-up phase to successful public companies qualify him to serve as a member of our Board of Directors.

Richard F. Pops has served as a member of our Board of Directors since 2004. Since 2011, Mr. Pops has served as Chief Executive Officer and Chairman of the board of Alkermes plc, the parent company of Alkermes. From 2009 to 2011, Mr. Pops served as Chief Executive Officer and Chairman of the Board of Alkermes, from 2007 to 2009 he served as the Chairman of the board of Alkermes, and from 1991 through 2007 he served as the Chief Executive Officer of Alkermes. Mr. Pops also serves on the board of directors of two other public companies, Neurocrine Biosciences, Inc. and Epizyme Inc., on the board of directors for the Biotechnology Industry Organization (BIO) and Pharmaceutical Research and Manufacturers of America (PhRMA), and the National Health Council. He has previously served on the board of directors of Sirtris Pharmaceuticals from 2004 to 2008, and CombinatoRx, Inc. from 2001 to 2009. Mr. Pops also served on the board of directors of Reliant Pharmaceuticals, a privately held pharmaceutical company purchased by GlaxoSmithKline in 2007, and on the advisory board of Polaris Venture Partners. He was a member of the Harvard Medical School Board of Fellows from 2002 through June 2012. Mr. Pops received a BA in economics from Stanford University. We believe that Mr. Pops' leadership experience and industry knowledge qualify him to serve as a member of our Board of Directors.

Joseph S. Zakrzewski has served as a member of our Board of Directors since 2011. Mr. Zakrzewski has also served as a member of the board of directors of Amarin Corporation since 2010, Insulet Corporation since 2008 and Onxeo S.A. since 2015 (Chairman). From 2010 through 2013, Mr. Zakrzewski served as Chairman and Chief Executive Officer of Amarin. From 2007 to 2010, Mr. Zakrzewski served as President and Chief Executive Officer of Xcellerex. From 2005 to 2007, Mr. Zakrzewski served as the Chief Operating Officer of Reliant Pharmaceuticals. From 1988 to 2004, Mr. Zakrzewski served in a variety of positions at Eli Lilly and Company including as Vice President, Corporate Business Development from 2003

through 2004. In addition, Mr. Zakrzewski served as a Venture Partner with OrbiMed in 2010 and 2011. He also currently serves and has previously served on the board of directors of a number of privately held companies. Mr. Zakrzewski received a BS in Chemical Engineering and an MS in Biochemical Engineering from Drexel University as well as an MBA in Finance from Indiana University. We believe that Mr. Zakrzewski's substantial experience as an executive officer of other pharmaceutical companies, as well as Mr. Zakrzewski's service on boards of directors of other pharmaceutical companies qualify him to serve as a member of our Board of Directors.

Director Independence

Under NASDAQ Rule 5605, a majority of a listed company's board of directors must be comprised of independent directors. In addition, NASDAQ rules require that, subject to specified exceptions, each member of a listed company's audit committee, compensation committee and nominating and corporate governance committee be independent and, in the case of the audit committee and compensation committee, satisfy additional independence criteria set forth in Rule 10A-3 and 10C-1, respectively, under the Securities Exchange Act of 1934, or the Exchange Act.

Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, the Board of Directors has determined that each of Ms. George, Messrs. Kearney, McCourt, McGuire, Pops and Zakrzewski, and Drs. Golumbeski, Maniatis and Nader, representing nine of our ten directors, is "independent" as that term is defined under NASDAQ Rule 5605(a)(2). The Board of Directors also determined that each of the current members of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee satisfies the independence standards for such committee established by Rule 10A-3 and 10C-1 under the Exchange Act, the SEC rules and the NASDAQ rules, as applicable. In making such determination, the Board of Directors considered the relationships that each such non-employee director has with our Company and all other facts and circumstances deemed relevant in determining their independence.

As part of such determination, the Board of Directors reviewed the facts and circumstances relevant to Dr. Maniatis's independence given his status as one of our co-founders. The Board of Directors considered that Dr. Maniatis has never served as one of Acceleron's executives or other employees and he has not managed any operational activities at Acceleron. The Board of Directors further considered that Acceleron was founded over ten years ago and Dr. Maniatis was employed full time at Harvard University at such time. Based on these factors, the Board of Directors determined that Dr. Maniatis satisfies the independence standards established by the SEC and NASDAQ rules, as applicable.

Board Meetings and Attendance

The Board of Directors held four meetings during the year ended December 31, 2016. Each of the directors attended at least seventy-five percent (75%) of the meetings of the Board of Directors and the committees of the Board of Directors on which he or she served during the year ended December 31, 2016 (in each case, which were held during the period for which he or she was a director and/or a member of the applicable committee and excluding any meetings in which a director was an interested party).

The non-management directors met in executive session during each of the regularly scheduled Board of Directors meetings during the year ended December 31, 2016.

The Board of Directors has adopted a policy requiring that members of the Board of Directors make every effort to attend our annual stockholder meetings. Seven of our then nine directors attended our 2016 Annual Meeting of Stockholders.

Board of Directors Leadership Structure

Our current Board leadership structure separates the positions of Chief Executive Officer and Chair of the Board of Directors, although we do not have a corporate policy requiring that structure. The Board believes that this separation is appropriate for the organization at this time because it allows for a division of responsibilities and a sharing of ideas between individuals having different perspectives. Our Chief Executive Officer, who is also a member of our Board of Directors, is primarily responsible for our operations and strategic direction, while our Board Chair, who is an independent member of the Board, is primarily focused on matters pertaining to corporate governance, including management oversight, and strategic guidance. While the Board believes that this is the most appropriate structure at this time, the Nominating and Corporate Governance Committee evaluates the Board leadership structure from time to time, and may recommend alterations of this structure in the future.

The Board of Directors' Role in Risk Oversight

The Board of Directors plays an important role in risk oversight at Acceleron through direct decision-making authority with respect to significant matters, as well as through the oversight of management by the Board of Directors and its committees. In particular, the Board of Directors administers its risk oversight function through (1) the review and discussion

of regular periodic reports by the Board of Directors and its committees on topics relating to the risks that Acceleron faces, (2) the required approval by the Board of Directors (or a committee of the Board of Directors) of significant transactions and other decisions, (3) the direct oversight of specific areas of Acceleron's business by the Audit, Compensation and Nominating and Corporate Governance Committees, and (4) regular periodic reports from the auditors and other outside consultants regarding various areas of potential risk, including, among others, those relating to our internal control over financial reporting. The Board of Directors also relies on management to bring significant matters impacting Acceleron to the attention of the Board of Directors.

Pursuant to the Audit Committee's charter, the Audit Committee is responsible for reviewing and discussing with management and Acceleron's independent registered public accounting firm, Acceleron's system of internal controls, its critical accounting practices, and policies relating to risk assessment and management. As part of this process, the Audit Committee discusses Acceleron's major financial risk exposures and steps that management has taken to monitor and control such exposure. In addition, the Audit Committee has established procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submissions by employees of concerns regarding questionable accounting or accounting matters.

Because of the role of the Board of Directors and the Audit Committee in risk oversight, the Board of Directors believes that any leadership structure that it adopts must allow it to effectively oversee the management of the risks relating to Acceleron's operations. The Board of Directors acknowledges that there are different leadership structures that could allow it to effectively oversee the management of the risks relating to the Company's operations and believes its current leadership structure enables it to effectively provide oversight with respect to such risks.

BOARD COMMITTEES

The Board of Directors has a standing Audit, Compensation and Nominating and Corporate Governance Committee, each of which is comprised solely of independent directors, and is described more fully below. Each committee operates pursuant to a written charter and each reviews and assesses the adequacy of its charter periodically and submits its charter to the Board for approval. The charters for each committee are all available on our website (www.acceleronpharma.com) under the "Investors & Media—Corporate Governance" section.

The following table describes which directors serve on each of the Board of Directors' committees.

Name	Nominating and Corporate Governance Committee	Compensation Committee	Audit Committee
Habib J. Dable			
Jean M. George(1)	X (2)		X
George Golumbeski, Ph.D.(1)			
Terrence C. Kearney			X (2)
Tom Maniatis, Ph.D.		X	
Thomas McCourt(1)		X	
Terrance G. McGuire	X		
Francois Nader, M.D.(1)			
Richard F. Pops	X		
Joseph S. Zakrzewski		X (2)	X

(1) Nominated for re-election at the 2017 annual meeting of stockholders. See Proposal 1.

(2) Chair of the committee.

Audit Committee

Our Audit Committee is composed of Jean M. George, Terrence C. Kearney and Joseph S. Zakrzewski, with Mr. Kearney serving as Chair of the committee. The Board of Directors has determined that each member of the Audit Committee meets the independence requirements of Rule 10A-3 under the Exchange Act and the applicable listing standards of NASDAQ. The Board of Directors has determined that Messrs. Kearney and Zakrzewski are "audit committee financial experts" within the meaning of the Securities and Exchange Commission, or SEC, regulations and applicable listing standards of NASDAQ. The Audit Committee's responsibilities include:

- appointing, approving the compensation of, and assessing the qualifications, performance and independence of our independent registered public accounting firm;

- pre-approving audit and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the audit plan with the independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- reviewing complaints received through our whistleblower hotline or otherwise regarding matters that fall within the purview of the Audit Committee;
- recommending, based upon the Audit Committee's review and discussions with management and the independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by the rules of the SEC to be included in our annual proxy statement;
- reviewing and overseeing our Code of Business Conduct and Ethics;
- viewing all related party transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing and discussing with management and our independent registered public accounting firm our earnings releases and scripts.

During the year ended December 31, 2016, the Audit Committee met seven times. The report of the Audit Committee is included in this proxy statement under "Audit Committee Report."

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee is composed of Jean M. George, Terrance G. McGuire and Richard F. Pops, with Ms. George serving as Chair of the committee. The Board of Directors has determined that each member of the Nominating and Corporate Governance Committee is "independent" as defined under the applicable listing standards of NASDAQ. The Nominating and Corporate Governance Committee's responsibilities include:

- developing and recommending to the Board of Directors criteria for Board and committee membership;
- establishing procedures for identifying and evaluating Board of Director candidates, including nominees recommended by stockholders;
- identifying individuals qualified to become members of the Board of Directors;
- recommending to the Board of Directors the persons to be nominated for election as directors and to each of the Board's committees;
- developing and recommending to the Board of Directors a set of corporate governance principles;
- articulating to each director what is expected, including reference to the corporate governance principles and directors' duties and responsibilities;
- reviewing and recommending to the Board of Directors practices and policies with respect to directors;
- reviewing and recommending to the Board of Directors the functions, duties and compositions of the committees of the Board of Directors;
- reviewing and assessing the adequacy of the committee charter and submitting any changes to the Board of Directors for approval;
- considering and reporting to the Board of Directors any questions of possible conflicts of interest of Board of Directors members;
- providing for new director orientation and continuing education for existing directors on a periodic basis;
- performing an evaluation of the performance of the committee; and
- overseeing the evaluation of the Board of Directors and management.

During the year ended December 31, 2016, the Nominating and Corporate Governance Committee met four times.

Compensation Committee

Our Compensation Committee is composed of Tom Maniatis, Ph.D., Thomas McCourt and Joseph S. Zakrzewski, with Mr. Zakrzewski serving as Chair of the committee. The Board of Directors has determined that each member of the Compensation Committee is "independent" as defined under the applicable listing standards of NASDAQ and meets the independence criteria set forth in Rule 10C-1. The Compensation Committee has the authority to delegate to one or more

subcommittees of the Compensation Committee any of the responsibilities of the full committee. The Compensation Committee's responsibilities include:

- annually reviewing and recommending to the Board of Directors corporate goals and objectives relevant to the compensation of our chief executive officer and our other executive officers;
- evaluating the performance of our chief executive officer in light of such corporate goals and objectives and reviewing and recommending the compensation of our chief executive officer to the Board of Directors for approval;
- reviewing and approving the compensation of our other executive officers;
- appointing, compensating and overseeing the work of any compensation consultant, legal counsel or other advisor retained by the Compensation Committee;
- conducting the independence assessment outlined in NASDAQ rules with respect to any compensation consultant, legal counsel or other advisor retained by the Compensation Committee;
- annually reviewing and reassessing the adequacy of the committee charter in its compliance with the listing requirements of NASDAQ;
- reviewing and establishing our overall management compensation philosophy and policy;
- overseeing and administering our equity compensation and other incentive compensation plans;
- reviewing and approving our equity and incentive compensation policies and procedures for the grant of equity-based awards and approving the grant of such equity-based and other incentive awards;
- reviewing and making recommendations to the Board of Directors with respect to director compensation; and
- reviewing and discussing with management the compensation discussion and analysis to be included in our annual proxy statement.

During the year ended December 31, 2016, the Compensation Committee met nine times. The report of the Compensation Committee is included in this proxy statement under "Compensation Committee Report."

Compensation Consultant

As a part of determining compensation for our named executive officers, the Compensation Committee has engaged Radford, Aon Hewitt, a business unit of Aon plc, as its independent compensation consultant. Radford provides analysis and recommendations to the Compensation Committee regarding:

- trends and emerging topics with respect to executive compensation;
- peer group selection for executive compensation benchmarking;
- compensation practices of our peer group;
- compensation programs for executives, directors, and all of our employees; and
- stock utilization and related metrics.

When requested, Radford consultants attend meetings of the Compensation Committee, including executive sessions in which executive compensation related matters are discussed. Radford reports to the Compensation Committee and not to management, although Radford meets with management for purposes of gathering information for its analyses and recommendations.

In determining to engage Radford, the Compensation Committee considered the independence of Radford, taking into consideration relevant factors, including the absence of other services provided to the Company by Radford, the amount of fees the Company paid to Radford as a percentage of Radford's total revenue, the policies and procedures of Radford that are designed to prevent conflicts of interest, any business or personal relationship of the individual compensation advisors employed by Radford with an executive officer of the Company, any business or personal relationship the individual compensation advisors employed by Radford have with any member of the Compensation Committee, and any stock of the Company owned by Radford or the individual compensation advisors employed by Radford. The Compensation Committee has determined, based on its analysis in light of all relevant factors, including the factors listed above, that the work of Radford and the individual compensation advisors employed by Radford as compensation consultants to the Compensation Committee has not created any conflicts of interest, and that Radford is independent pursuant to the independence standards set forth in the NASDAQ listing standards promulgated pursuant to Section 10C of the Exchange Act.

Compensation Committee Interlocks and Insider Participation

None of the members of our Compensation Committee has at any time during the prior three years been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the Board of Directors or Compensation Committee of any entity that has one or more executive officers serving on our Board of Directors or Compensation Committee. For a description of transactions between us and members of our Compensation Committee and affiliates of such members, please see "Certain Relationships and Related Party Transactions."

Risks Related to Compensation Practices and Policies

The Compensation Committee maintains a pay-for-performance compensation philosophy, but also recognizes that providing certain types of compensation incentives may inadvertently motivate individuals to act in ways that could be detrimental to our company as a whole in order to maximize personal compensation. To minimize such risk, the Compensation Committee reviews at least annually the overall structure and components of our compensation program. The Compensation Committee also performs an annual evaluation to ensure that salary levels, equity awards and other elements of compensation are benchmarked against appropriate standards and that incentives provided for achievement of target goals are balanced between short-term rewards and longer-term enhancement of shareholder value. The Compensation Committee has reviewed and evaluated the philosophy and standards on which our compensation plans have been developed and implemented across Accelaron. It is our belief that our compensation program does not encourage inappropriate actions or risk taking by our executive officers. We do not believe that any risks arising from our employee compensation policies and practices are reasonably likely to have a material adverse effect on our business. In addition, we do not believe that the mix and design of the components of our executive compensation program encourage management to assume excessive risks. We believe that our current business process and planning cycle fosters the behaviors and controls that would mitigate the potential for adverse risk caused by the action of our executives, including the following:

- the establishment of base salaries consistent with our executive officers' responsibilities and market comparables to ensure that our executive officers would not be motivated to take excessive risks to achieve a reasonable level of financial security;
- annual establishment of corporate objectives for our performance-based cash incentive program for our executive officers that are consistent with our annual operating and strategic plans, that are designed to achieve the proper risk/reward balance, and that should not require excessive risk taking to achieve;
- the mix between fixed and variable, annual and long-term and cash and equity compensation is designed to encourage strategies and actions that balance our short-term and long-term best interests;
- stock option awards vest over a period of time, which we believe encourages executives to take a long-term view of our business; and
- the discretion available to our Compensation Committee not to apply fixed formulae in assessing our company performance, which allows the Compensation Committee to, among other things, (a) eliminate the potential incentive for management to conduct activities that are included in our annual corporate goals, but which may not, due to new data or other developments, ultimately prove to be in the best interest of our stockholders, and (b) reward management for making decisions that are in the long-term best interest of our therapeutic candidate development programs, even when those decisions result in the failure to meet short-term objectives.

Code of Business Conduct and Ethics

We have adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. Our code of business conduct and ethics is available on our website. We intend to disclose any amendments to the code, or any waivers of its requirements, on our website.

EXECUTIVE OFFICERS

Below is a list of the names, ages as of March 31, 2017 and positions, and a brief account of the business experience of the individuals who serve as our executive officers.

Name	Age	Position
Habib J. Dable	47	Chief Executive Officer and President; Director (Class II)
Steven D. Ertel	47	Executive Vice President and Chief Operating Officer
Matthew L. Sherman, M.D.	61	Executive Vice President and Chief Medical Officer
Kevin F. McLaughlin	60	Senior Vice President, Chief Financial Officer and Treasurer
Ravindra Kumar, Ph.D.	57	Senior Vice President and Chief Scientific Officer
John D. Quisel, J.D., Ph.D.	45	Senior Vice President, Business Development, General Counsel and Secretary

EXECUTIVE OFFICER BIOGRAPHIES

Steven D. Ertel joined Accelaron in January 2006 and is our Executive Vice President and Chief Operating Officer. Mr. Ertel established our business development function and currently leads our commercial strategy, program management, manufacturing, quality, and corporate communications functions. Mr. Ertel has over 20 years of experience in the biotechnology industry at Vivus, Inc., Genentech, Inc., Biogen Idec, Inc., and Synta Pharmaceuticals Corp. His responsibilities at these companies included program management for preclinical and clinical stage programs, commercial strategy for clinical

stage programs, market launch of a novel biologic agent, and business development. Mr. Ertel began his career in the venture capital industry at Oxford Bioscience Partners. Mr. Ertel received a BSE in biomedical engineering from Duke University and an MBA from the Wharton School at the University of Pennsylvania.

Matthew L. Sherman, M.D. joined Acceleron in May 2006 and is our Executive Vice President and Chief Medical Officer. Since October 2016, Dr. Sherman has served on the board of directors of Pulmatrix, Inc. Previously, he served as Senior Vice President and Chief Medical Officer at Synta Pharmaceuticals Corp. where he was responsible for clinical research, clinical operations, biostatistics, data management, regulatory affairs, quality assurance and program management. Prior to that, Dr. Sherman worked at Genetics Institute and Wyeth Pharmaceuticals in various capacities including Therapeutic Area Director for Oncology. While at Wyeth, Dr. Sherman provided senior oncology and hematology leadership for worldwide clinical development for both small molecule and biologic therapeutics, including the submission and approval of Mylotarg® by the FDA. He has published numerous papers and book chapters in the field of oncology and clinical development and is named as an inventor of several patents. Dr. Sherman is board certified in Medical Oncology and Internal Medicine and held various clinical positions at Harvard Medical School with corresponding hospital appointments at the Dana-Farber Cancer Institute and Brigham and Women's Hospital. Dr. Sherman received an SB in chemistry from the Massachusetts Institute of Technology and an MD from Dartmouth Medical School.

Kevin F. McLaughlin joined Acceleron in November 2010 and is our Senior Vice President, Chief Financial Officer and Treasurer. Since January 2015, Mr. McLaughlin has served on the board of directors of Vericel Corporation. He also recently served, from 2009 through 2010, as Senior Vice President and Chief Financial Officer of Qteros, Inc. He was a co-founder of Aptius Education, Inc. and from 2007 through 2009 he worked as the Chief Operating Officer and a director. From 1996 through 2007, Mr. McLaughlin held several executive positions with PRAECIS Pharmaceuticals, Inc. He joined PRAECIS as their first Chief Financial Officer where he had responsibility for private financings, partnership financings, the company's initial public offering and subsequent stock offering. Later, Mr. McLaughlin became COO, and then President and CEO, and he served as a member of the board of directors. In this capacity he was responsible for negotiating the sale of the company to GlaxoSmithKline. He began his career in senior financial roles at Prime Computer and Computervision Corporation. Mr. McLaughlin received a BS in business from Northeastern University and an MBA from Babson College.

Ravindra Kumar, Ph.D. joined Acceleron in March 2004 and is currently our Senior Vice President and Chief Scientific Officer. Dr. Kumar established and currently leads our discovery research. Previously, Dr. Kumar worked for 12 years at Genetics Institute and Wyeth Pharmaceuticals. At Genetics Institute, Dr. Kumar was a key member of the Small Molecule Drug Discovery group and was responsible for cell biology. Following the integration of discovery functions from Genetics Institute and Wyeth Pharmaceuticals, Dr. Kumar served as Senior Scientist in the Biological Chemistry group. Dr. Kumar is the author of several key scientific manuscripts in the area of protein glycosylation and is named as an inventor of several patents. Dr. Kumar received his BS in chemistry from Rohilkhand University, his MS in chemistry from Meerut University, his Ph.D. from University of New Brunswick and he completed his post-doctoral fellowship at Albert Einstein College of Medicine, in Bronx, NY.

John D. Quisel, J.D., Ph.D. joined Acceleron in October 2006 and is currently our Senior Vice President, Business Development, General Counsel and Secretary. Prior to joining us, Dr. Quisel worked at the Boston office of Ropes & Gray LLP and, prior to that, the Boston office of Foley Hoag LLP. In his work at law firms, Dr. Quisel has, through strategic in-licensing and protection of internal research programs, assembled and licensed product and platform focused intellectual property portfolios for numerous biotechnology ventures. Over his entire career, Dr. Quisel's experience spans many aspects of biotechnology law, including the negotiation of intellectual property licenses and product development collaborations, patent prosecution and litigation. Dr. Quisel received an AB in biology from Harvard University, an MS in biology from Stanford University, a Ph.D. in biology from the Massachusetts Institute of Technology and a J.D. from Harvard Law School.

COMPENSATION DISCUSSION AND ANALYSIS

TABLE OF CONTENTS

Contents	Page
I. Executive Summary	17
How Our Pay Program Works	19
2016 Annual Meeting Say-On-Pay Vote	21
II. Executive Compensation Philosophy and Objectives	21
III. Market Benchmarks and Competitive Analysis	22
Role of our Chief Executive Officer	22
Role of Compensation Consultant	22
2016 Peer Group	22
Peer Group Changes for 2017 Compensation	23
IV. Elements of Executive Compensation	23
Base Salaries	24
Annual Short-Term Incentives	25
Long-Term Incentives	28
V. Additional Compensation Policies and Practices	30
Equity Ownership Guidelines	30
Anti-Hedging and Pledging Policy	30
Benefits	31
Employee Stock Purchase Plan	31
Employment Agreements	31
Tax and Accounting Considerations	31

COMPENSATION DISCUSSION AND ANALYSIS

This Compensation Discussion and Analysis (“CD&A”) describes the actions taken by the Compensation Committee with respect to compensation awarded or paid to our named executive officers for fiscal year 2016 and the policies and principles underlying those decisions. Our named executive officers, or NEOs, for fiscal year 2016 were:

Name	Position
Habib J. Dable(1)	Chief Executive Officer and President
Kevin F. McLaughlin	Senior Vice President, Chief Financial Officer and Treasurer
Steven D. Ertel	Executive Vice President and Chief Operating Officer
Matthew L. Sherman, M.D.	Executive Vice President and Chief Medical Officer
Ravindra Kumar, Ph.D.	Senior Vice President and Chief Scientific Officer
John L. Knopf, Ph.D.(2)	Former Chief Executive Officer and President

(1) Mr. Dable was appointed as our Chief Executive Officer and President effective as of December 1, 2016.

(2) Dr. Knopf retired and resigned as our Chief Executive Officer and President effective as of November 30, 2016 and became the Chair of our Scientific Advisory Board and a consultant effective as of December 1, 2016.

I. Executive Summary

We made tremendous progress in 2016 across our entire clinical portfolio of therapies in hematology, neuromuscular disease, and oncology. We are well positioned for what we expect may be a transformational year in 2017. We are also looking ahead to multiple important milestones that will help us achieve our vision of becoming a fully integrated biopharmaceutical company over the next few years. Additionally, we continue to advance and expand our wholly-owned portfolio of innovative therapeutic candidates for patients with limited treatment options in serious diseases.

In short, we are excited. We strongly believe in the culture of our Company and that our leaders will continue to move us forward – to create significant value for our stockholders while making a meaningful difference in the lives of patients who currently have limited treatment options.

To ensure Acceleron continues on this ambitious path, we have designed our executive compensation program to motivate, attract and retain a highly skilled team of key executives and to appropriately reward them for their contributions to our business, while also aligning executive interests with those of our stockholders.

Key Takeaways

Highlighted below are several items that provide important context regarding the Company's executive compensation program and practices:

- **Pay for Performance**

A basic principal of our compensation philosophy is to align pay and performance.

- **Realizable Pay of NEOs:** Because a significant portion of our NEOs' pay is equity-based, the amount of compensation they will actually realize is based on our stock price performance. Measuring realizable pay as of a particular date helps to demonstrate the effectiveness of our pay program in achieving our objective of aligning pay with performance. The grant date fair value amounts reported in the Summary Compensation Table are not reflective of the actual realizable value of our NEO pay packages. As our Realizable Pay chart below demonstrates, actual realizable pay levels increased or decreased in 2016 depending on stock price returns, which is directly aligns NEO pay with performance.

- **Executive Interests Aligned with Stockholder Interests**

- Short-term incentives focused on the achievement of major milestone goals for therapies, clinical trials, finance and research and development. Progress in these areas is what makes Acceleron thrive!
- Long-term incentives are based on stock price performance and the achievement of objective corporate goals over the long-term, generally with three to four-year vesting schedules.
- Additionally, NEOs are required to hold meaningful amounts of Company stock pursuant to our Executive Stock Ownership Guidelines.

- **Chief Executive Officer Transition**

- During December 2016, the Company successfully completed a CEO transition.
- More details on our new CEO's compensation package are below. It is important to highlight that in light of the market competitive on-hire equity compensation package provided to our new CEO, the Compensation Committee does not intend to provide the CEO with further equity grants until 2018.

Chief Executive Officer Transition

Late in the first quarter of 2016, John Knopf, our then-Chief Executive and President, discussed retirement and succession planning with members of the Board of Directors. As a result of these discussions, the Board of Directors initiated a process to identify a successor, and Dr. Knopf indicated that at such time that a successor was appointed, he would plan to retire from his position as Chief Executive Officer and President and resign from the Board of Directors. On September 24, 2016, the Board of Directors appointed Habib J. Dable to serve as our new Chief Executive Officer and President, and as a director, effective on December 1, 2016. Dr. Knopf retired and resigned as our Chief Executive Officer and President and as a member of the Board of Directors effective as of November 30, 2016, and became Chair of our Scientific Advisory Board and a consultant on December 1, 2016.

New Chief Executive Officer On-Hire Compensation Package

To determine Mr. Dable's compensation package in connection with his appointment, the Compensation Committee, with Radford's input, considered the compensation paid to CEOs at our peer companies described below, as well as broader market survey data consisting of compensation data from Radford's Global Life Sciences Survey, made up of biopharmaceutical companies with a market capitalization of between \$400M to \$3.8B and with between 50 and 400 employees.

Mr. Dable's on-hire compensation package consisted of the following key elements:

Annual Compensation

- *Annual Base Salary:* \$550,000 per year

- *Bonus Target:* 60% of annual base salary
- *Equity Award:* Mr. Dable has not received and will not receive an annual equity award for 2017, but he will be eligible for annual equity awards beginning in 2018.

On-Hire Compensation

- *Sign-On Bonus:* \$350,000, reduced by any amount Mr. Dable received from his prior employer for his 2016 annual bonus.
- *Equity Award:*
 - Options to purchase 400,000 shares of our common stock; and
 - Performance-based restricted stock units, or PSUs, representing the right to receive up to 62,800 shares of our common stock.
- *Relocation Expense Reimbursement:* Up to \$200,000

In determining the value of the on-hire compensation package to be offered to Mr. Dable, the Compensation Committee targeted the 65th percentile of the market, which is based on our peer group and Radford's broader market survey data. This target was slightly higher than the Compensation Committee's general philosophy of targeting the 50th percentile, but the Compensation Committee considered Mr. Dable's diverse skill set and strong track record within the biopharmaceutical industry, as well as his excellent executive leadership and communications skills, and determined that targeting the 65th percentile was appropriate given these factors.

On-Hire Equity Awards

The majority of the value of Mr. Dable's compensation for 2016 is comprised of one-time on-hire equity awards of stock options and PSUs that were granted to Mr. Dable in connection with his appointment as our new Chief Executive Officer. Mr. Dable's on-hire equity awards are greater in value than he would typically receive as part of his annual compensation because the award is intended to:

- Compensate him for the significant unvested equity he held in his former employer that he forfeited when he left his former employer and joined as our new Chief Executive Officer;
- Serve as both his on-hire equity awards and his 2017 annual equity awards because Mr. Dable is not eligible to receive any equity awards in 2017; and
- Provide Mr. Dable with an immediate and meaningful ownership stake in the Company that will align his interests with those of our stockholders.

To align our new CEO with the rest of our executive team that received a PSU award in September 2015, we granted Mr. Dable a one-time PSU award as part of his on-hire awards structured in the same manner as the PSUs granted to our other named executive officers, including our former Chief Executive Officer, Dr. Knopf, except that Mr. Dable's PSU award was prorated to account for the reduction in the four-year performance vesting period due to the time that had passed since the one-time PSU awards were granted to our other named executive officers. The PSUs are a one-time award, and we do not expect any of our existing named executive officers to receive PSUs in 2017.

Sign-On Bonus

In addition to Mr. Dable's one-time on-hire equity awards, we paid him a one-time, on-hire sign-on bonus in the amount of \$350,000. This sign-on bonus was primarily intended to compensate Mr. Dable for the annual bonus that he would have been eligible to receive from his former employer for his performance in 2016 if he continued working at his former employer. Accordingly, Mr. Dable's one-time sign-on bonus was to be reduced by any amounts he was paid by his former employer for his 2016 annual bonus. Due to Mr. Dable's departure from his former employer prior to the end of 2016, he did not receive an annual bonus from his former employer for his 2016 performance and, as a result, we paid Mr. Dable his full sign-on bonus.

How Our Pay Program Works

Our executive compensation philosophy is focused on aligning pay and performance. The framework we employ for measuring and rewarding performance consists of a combination of strategic, operational and financial performance goals, taking into consideration each individual executive's contributions to the achievement of those goals. As a result, a significant portion of each executive's compensation is variable and tied to the achievement of annual and longer-term company

performance goals. In combination, these annual and longer-term goals provide a balanced view of performance and are the basis for the Compensation Committee's executive compensation decisions.

Elements of Pay

Our executive compensation program is designed to reward executives for achievement of our short- and long-term strategic, operational and financial goals. In doing so, we have also constructed our executive compensation program to attract and retain world-class talent and to align executive compensation pay opportunities with the interests of our stockholders. The Compensation Committee has selected the following primary elements to achieve these objectives:



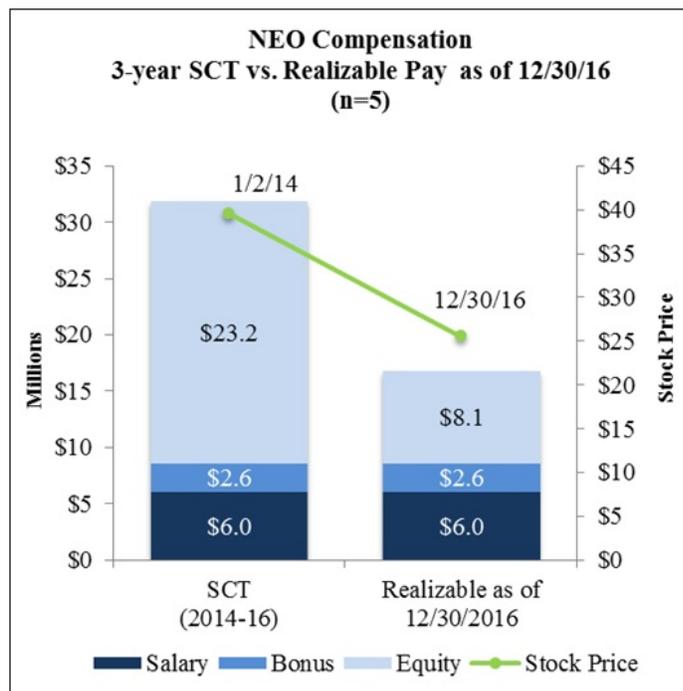
In addition to these pay elements, our named executive officers are eligible to receive broad-based benefits that are available to our employees generally and to receive severance benefits on certain terminations of employment and the Compensation Committee has also made one-time grants of PSUs to all current named executive officers as described above. For our named executive officers other than Mr. Dable, these awards were granted in September 2015. Mr. Dable was granted PSUs in December 2016 upon his commencement of employment as our new CEO. These awards, although not granted annually, have added a significant, performance-based element to our executive compensation program. Employing a four-year performance period (prorated for Mr. Dable), these awards can vest beginning on the second anniversary of the grant date based on significant milestone achievements for the Company. The PSUs are described in greater detail later in the Long-Term Incentives subsection of the Elements of Compensation (Section IV of this CD&A).

Realizable Pay

Paying for performance continues to be the core of our compensation program. A good way to demonstrate how we have utilized the aforementioned pay elements to align pay and performance is through the following chart, which shows the difference between the aggregate reported pay of our NEOs (including Dr. Knopf, as he served as CEO during this period, but excluding Mr. Dable due to his limited tenure), as disclosed in our Summary Compensation Table for the 2014, 2015, and 2016 fiscal years, and the realizable pay (as defined below) for these three years as of the end of the 2016 fiscal year. Over the three-year period ending December 30, 2016, our share price declined by approximately 35.6%; as a result, aggregate NEO realizable pay is nearly 47.4% less than is reported in our Summary Compensation Table for that same period. We believe this graphic clearly illustrates that pay and performance are aligned.

“SCT” pay is the aggregate pay levels as disclosed annually in our Summary Compensation Table over the past three years. This includes actual base salary, actual annual bonuses received, and long-term incentive components (restricted stock units, PSUs and annual stock option grants) based on the grant date fair value.

“Realizable” pay is defined as the compensation earned or deliverable during the 2014, 2015 and 2016 fiscal years, calculated as of December 30, 2016 (the last trading day of the 2016 fiscal year) using the year-end share price of \$25.52 per share, and includes: actual salary received, actual annual bonuses received, and the intrinsic value of long-term incentive plan components (whether vested or unvested).



Governance of Our Compensation Program

We have several governance practices that we believe reinforce the soundness of our executive compensation program.

Best Practices We Employ

Long-Term Focus. Majority of NEO compensation tied to long term performance.

No Excessive Perquisites. Other than participation in benefit plans offered to all of our employees, we generally offer no other perquisites to our executive officers, including our named executive officers.

No Hedging or Pledging. We do not allow any of our executive officers, including our named executive officers, or our directors, to enter into any hedging-type transactions in our stock or to pledge our stock.

Equity Ownership Guidelines. We have equity ownership guidelines that apply to our executive officers, requiring them to hold equity interests with a value of a pre-determined multiple of base salary. In 2016, we adopted equity ownership guidelines for our non-employee directors requiring them to hold equity interests with a value of a pre-determined multiple of base retainer.

No Section 280G Gross-Ups. None of our executive officers are entitled to a Section 280G gross-up.

Double-Trigger Vesting Acceleration. All equity granted to our named executive officers since January 2014 is subject to double-trigger vesting acceleration.

Director Independence. The Compensation Committee is made up entirely of independent directors.

Independent Compensation Consultant. The Compensation Committee retains an independent compensation consultant to advise on our executive compensation program and practices.

Risk Assessment. The Compensation Committee conducts an annual risk assessment of the compensation program.

Risk Avoidance. We avoid incentive program designs that encourage excessive risk taking.

2016 Annual Meeting Say-On-Pay Vote

At our 2016 annual stockholder meeting, our stockholders approved, on an advisory basis, the compensation of our named executive officers for fiscal year 2015, which included the one-time PSU awards granted to our named executive officers, with over 99% of the votes cast voting in favor of the proposal. The Compensation Committee believes this affirms our stockholders' support of the Company's approach to executive compensation. Although the vote is non-binding, the Compensation Committee considered the results of the vote in its review of our executive compensation program. Based on the level of stockholder support and its assessment of the efficacy and appropriateness of our executive compensation program, the Compensation Committee did not implement substantial changes to our executive compensation program in 2016. In connection with his appointment of our new CEO in December 2016, the Compensation Committee determined Mr. Dable's on-hire compensation package, including a one-time PSU award, consistent with our executive compensation program that was overwhelmingly approved by our stockholders in 2016, as described above. The Compensation Committee will continue to consider the outcome of the Company's say-on-pay vote when making future compensation decisions for the Company's named executive officers.

II. Executive Compensation Philosophy and Objectives

Our executive compensation program and pay decisions are based on the philosophy that pay should be competitive and reward our executives for company performance. To maintain pay at competitive levels, the Compensation Committee's general philosophy is to target base salaries and total direct compensation (base salaries, target annual incentives and long-term incentives) at levels that approximate the 50th percentile of the market, which reflects both our peer companies and broader market compensation data.

The primary objectives of our executive compensation program are to:

- attract, motivate and retain a highly-skilled team of key executives;
- align the interests of our executives with the interests of our stockholders by tying compensation to the achievement of our short- and long-term strategic goals, which serves to enhance short- and long-term value creation for our stockholders;
- promote the achievement of key strategic, research and development, operational and financial performance goals by linking compensation to the achievement of measurable performance goals; and

- provide for levels of compensation that are competitive with the market.

To achieve these objectives, the Compensation Committee evaluates our executive compensation program annually to maintain a design that furthers these objectives. We provide competitive pay by taking into consideration comparable pay at our peer companies and within the broader market, as well as the job scope, responsibilities and individual performance and experience of each executive. We award equity-based compensation in the form of stock options and RSUs that vest over time, which we believe aligns the interests of our executives with the interests of our stockholders by allowing them to participate in our longer-term success as reflected in the appreciation of our stock price and helps to retain our executives. In September 2015 and in December 2016 in connection with the appointment of our new CEO, we awarded a one-time grant of performance-based restricted stock units to our executive officers, including our named executive officers, to further promote the achievement of key company goals and objectives, including goals and objectives that may only be capable of being achieved over a time period of longer than one year.

III. Market Benchmarks and Competitive Analysis

Each year, the Compensation Committee considers a variety of factors in assessing the competitiveness of our executive compensation program and the individual compensation of each of our executives, including our named executive officers. These factors include our performance against our internal strategic, operational and financial corporate goals, the mix of short-term cash and long-term equity compensation we provide, and a thorough review of compensation paid at peer companies and within the broader market (consisting of data from Radford's Global Life Science compensation survey) compared to the compensation we pay our executive officers.

Role of our Chief Executive Officer

Our Chief Executive Officer regularly discusses compensation-related matters with the Chair of the Compensation Committee and meets with the Compensation Committee as a whole to discuss these matters. Our Chief Executive Officer also provides the Compensation Committee and Board of Directors with his evaluation of the performance of the executive officers other than himself.

Role of Compensation Consultant

The Compensation Committee has engaged Radford as its independent compensation consultant. Radford assists the Compensation Committee in the development of a list of our peer companies and collects, analyzes and compares compensation data of such peer companies to the levels and components of our executive compensation program. Using the peer group data provided by Radford and Radford's Global Life Sciences compensation survey data each year, the Compensation Committee determines compensation of our executive officers with a philosophy of setting base salaries and total target direct compensation at a level consistent with approximately the 50th percentile of the market, which reflects both our peer companies and broader market compensation data. The Compensation Committee evaluates and considers compensation data from our peer companies as well as broader market survey data described above for each element of compensation to ensure the competitiveness of the compensation packages we provide to our executive officers.

2016 Peer Group

In mid-2015, the Compensation Committee, taking into consideration information provided by Radford, determined our peer companies for the 2016 fiscal year. In determining our peer companies, the Compensation Committee selected publicly-traded companies that generally had the following similarities to our Company:

- Operate in our industry
- Market capitalization
- Number of employees
- Scientific stage of development

Given these criteria, our peer group used for 2016 compensation comparisons and decisions was as follows:

Achillion Pharmaceuticals, Inc.	Kite Pharma, Inc.
Agios Pharmaceuticals, Inc.	MacroGenics, Inc.
Array BioPharma Inc.	Merrimack Pharmaceuticals, Inc.
Celldex Therapeutics	Neurocrine Biosciences, Inc.
Chimerix, Inc.	NewLink Genetics Corporation
Clovis Oncology, Inc.	OncoMed Pharmaceuticals, Inc.
Epizyme, Inc.	Portola Pharmaceuticals, Inc.
Exelixis, Inc.	Sangamo BioSciences, Inc.
Infinity Pharmaceuticals, Inc.	Tesaro, Inc.
Karyopharm Therapeutics Inc.	

Peer Group Changes for 2017 Compensation

In mid-2016, the Compensation Committee, with Radford's input, evaluated and revised the list of peer companies for the 2017 fiscal year, based on changes in the Company's and individual peer companies' profiles, including market capitalization, employee population, and scientific stage of development. Survey data was updated to reflect our growth and included biopharmaceutical companies with a market capitalization of between \$400M to \$3.8B and with between 50 and 400 employees.

As a result of this evaluation, the following companies were removed from our peer group for 2017:

- Chimerix, Inc.
- Infinity Pharmaceuticals, Inc.
- Karyopharm Therapeutics Inc.
- Tesaro, Inc.

In their place, the following peers were determined to be more relevant and were added to our peer group for 2017:

- FibroGen, Inc.
- Novavax, Inc.
- Ophthotech Corporation
- Puma Biotechnology, Inc.
- Ultragenyx Pharmaceutical Inc.

IV. Elements of Executive Compensation

The compensation of our executive officers for fiscal year 2016 consisted of the following elements:

Element	Performance Period	Objective	Features
Fixed Pay			
Base Salary	Annual	Attracts and retains highly skilled executives	Fixed component of pay to provide financial stability, based on responsibilities, experience, individual contributions and peer company data
Annual Short-Term Incentives			
Annual Cash Bonus	Annual	Promotes and rewards the achievement of key short-term strategic and business goals of the Company as well as individual performance; motivates executives	Variable component of pay based on previously-established annual company goals and individual performance
Long-Term Equity Incentives			
Stock Options and Restricted Stock Units	Long-Term	Encourages executives to focus on long-term Company performance; promotes retention of executives; rewards outstanding Company and individual performance Aligns executive interests with those of our stockholders and rewards stockholder value creation over the long-term	Time-based stock option awards generally vest in equal installments quarterly over a four-year period Time-based restricted stock unit awards generally vest in equal installments annually over a three-year period

Base Salaries

The Compensation Committee annually evaluates and determines base salaries for our named executive officers, taking into consideration a number of factors, including:

- The scope of each executive's responsibilities;
- Each executive's respective experience and individual contributions to the Company;
- Base salaries paid for comparable positions at our peer companies and within the broader market, determined based on survey data provided by Radford;
- Company performance as a whole; and
- General industry conditions.

In addition, the Compensation Committee considers our Chief Executive Officer's assessment of individual base salary levels for our executive officers, other than himself. In determining the annual base salaries of each of our named executive officers, the Compensation Committee considers all of the foregoing factors, but does not assign any specific weighting to any factor.

In January 2016, the Compensation Committee evaluated the base salaries of our executive officers, including our named executive officers, for fiscal year 2016, and considered each of the factors described above. Salary increases were determined, in large part, based on base salaries paid to executives holding comparable positions at our peer companies and within the broader market and our philosophy of targeting base salary and total direct compensation at approximately the 50th percentile of the market, which reflects both our peer companies and broader market compensation data.

Base salary increases for our named executive officers approved by the Compensation Committee, effective January 1, 2016, were:

Name	2015 Base Salary (\$)	2016 Base Salary (\$)	% Change
Habib J. Dable(1)	—	550,000	N/A
Kevin F. McLaughlin	353,275	368,113	4.2%
Steven D. Ertel(2)	415,000	435,000	4.8%
Matthew L. Sherman, M.D.(3)	415,000	427,450	3.0%
Ravindra Kumar, Ph.D.	335,110	355,000	5.9%
John L. Knopf, Ph.D.(4)	532,680	548,660	3.0%

(1) Mr. Dable was appointed as our Chief Executive Officer and President effective as of December 1, 2016.

(2) Reflects Mr. Ertel's 2015 year-end base salary. Mr. Ertel's salary was increased during 2015 due to his promotion to Executive Vice President and Chief Operating Officer.

(3) Reflects Dr. Sherman's 2015 year-end base salary. Dr. Sherman's salary was increased during 2015 due to his promotion to Executive Vice President and Chief Medical Officer.

(4) Dr. Knopf retired and resigned as our Chief Executive Officer and President effective as of November 30, 2016.

In March 2016, in connection with Dr. Kumar's title change from Vice President and Chief Scientific Officer to Senior Vice President and Chief Scientific Officer, Dr. Kumar's annual base salary was increased from his then current salary of \$345,153 to \$355,000, effective as of January 1, 2016. To determine the appropriate salary for Dr. Kumar in connection with his new title, the Compensation Committee considered the base salaries paid to executives holding comparable positions at our peer companies and within the broader market, determined based on survey data provided by Radford.

In determining Mr. Dable's salary in connection with his appointment as our Chief Executive Officer and President, the Compensation Committee considered Mr. Dable's extensive experience in the industry and his executive leadership experience, along with the base salaries paid to Chief Executive Officers at our peer companies and within the broader market, determined based on survey data provided by Radford.

Annual Short-Term Incentives

Our annual cash bonus program for our named executive officers and other executive officers and key employees is administered by the Compensation Committee through the Acceleron Pharma Inc. Short-Term Incentive Compensation Plan, or the Incentive Plan. The Incentive Plan promotes and rewards the achievement of key strategic and business goals.

For fiscal year 2016, the target and maximum annual bonuses as a percentage of base salary for our named executive officers were as follows:

Name	Target	Maximum
Habib J. Dable(1)	5%	—
Kevin F. McLaughlin	40%	60%
Steven D. Ertel	40%	60%
Matthew L. Sherman, M.D.	40%	60%
Ravindra Kumar, Ph.D.	35%	53%
John L. Knopf, Ph.D.(2)	60%	90%

(1) Mr. Dable was appointed as our Chief Executive Officer and President effective as of December 1, 2016; as such, he did not have a 2016 bonus maximum because his bonus was determined separately from our other named executive officers, and was based primarily on his individual performance rather than achievement of our corporate goals due to his limited tenure during 2016. Mr. Dable's target annual bonus for 2016 was prorated at 5% of his annual base salary for one-month of service based on an annual target of 60% of his annual base salary.

(2) Dr. Knopf retired and resigned as our Chief Executive Officer and President effective as of November 30, 2016.

Based upon the recommendation of the Compensation Committee, the Board of Directors establishes specific performance criteria under the Incentive Plan annually that are based on our corporate goals for the year. After the end of the year, the Compensation Committee compares company performance for the prior year against our corporate goals and makes a recommendation to the Board of Directors on the percentage of the corporate goals that were achieved for such year. The independent members of the Board of Directors then make a final determination on the level of achievement of such goals.

The amount actually paid in annual cash bonuses to each of our named executive officers, other than our Chief Executive Officer, is determined by the Compensation Committee, and this determination is based primarily on the achievement of our corporate goals as determined by the Board of Directors, subject to adjustment for individual performance. In its sole discretion, the Compensation Committee may, consistent with our stated compensation philosophy and objectives, award bonuses above or below these amounts on a case-by-case basis or may decide to not award bonus payments at all, notwithstanding the achievement of particular goals or individual contributions. The Compensation Committee also annually sets the maximum annual bonus payout, which for fiscal year 2016 allowed bonus payments of up to 150% of each named executive officers' target bonus other than for Mr. Dable. Due to Mr. Dable joining us on December 1, 2016, his bonus payout was recommended by the Compensation Committee and determined by the independent members of the Board of Directors separately from our other named executive officers, and was based primarily on his individual performance during 2016 rather than achievement of our corporate goals due to his limited tenure during 2016. Payment of the annual cash bonus to all of our executives, including our current and former Chief Executive Officers, is conditioned on the executive remaining employed by us or providing services to us at the time the bonus is actually paid.

2016 Corporate Goals

Each of our corporate goals has a designated weighting. The corporate goals are comprised of key strategic, operational and financial goals relating to research, clinical development, process development and manufacturing, and the achievement of financial objectives. The annual bonuses for fiscal year 2016 were based on our performance relative to the following performance objectives:

Weighting / Category	Goal
(25%) Luspatercept	Goals for the advancement of luspatercept, in collaboration with our partner, Celgene Corporation were as follows:
	<ul style="list-style-type: none"> Actively support the MEDALIST phase 3 myelodysplastic syndromes (MDS) Study and the BELIEVE phase 3 beta-thalassemia study to accelerate timing to submission of biologics license applications Enroll two new cohorts in our phase 2 MDS dose escalation and expansion study and demonstrate substantial durability of transfusion independence months in the long-term phase 2 extension study Demonstrate a significant percentage of patients achieving at least a 33% reduction in transfusion burden after six months of treatment in the phase 2 beta-thalassemia long-term extensions study
	(10%) Sotatercept
(10%) Dalantercept	<ul style="list-style-type: none"> Obtain support from Celgene to initiate a phase 2 clinical trial in pre-dialysis chronic kidney disease patients Achieve the primary endpoint in the randomized, placebo-controlled part 2 of the DART trial
(10%) ACE-083	Goals for the advancement of the ACE-083 clinical development program for the treatment of focal muscle disorders were: <ul style="list-style-type: none"> Fully enroll two new cohorts in the phase 1 study of healthy volunteers and present data from these cohorts achieving a substantial increase in muscle volume Dose the first patient in two phase 2 studies
(5%) New Development Candidates	<ul style="list-style-type: none"> Submit an investigational new drug application, or IND, to the FDA for a new systemic muscle agent
(15%) R&D Capabilities	<ul style="list-style-type: none"> Enhance capabilities to enable a new molecule to enter a phase 1 clinical trial every 12-18 months and hire sufficient staff to support this effort Optimize and expand the IntelliTrap™ platform Select two new research molecules to be designated as lead development candidates to enable an IND submission in 2017
(15%) Financial	<ul style="list-style-type: none"> Meet the 2016 budget objectives Finance the company to provide cash sufficient for operations through the end of 2018
(10%) Commercial and Business Development	<ul style="list-style-type: none"> Develop relationships with potential partners to allow for more rapid advancement expansion of pipeline Develop a commercial strategic plan for our late-stage product pipeline

The Compensation Committee determined that in the event that less than 50% of the goals were achieved, there would be no annual bonus payout to executive officers 2016. In the event that at least 50% of the goals were achieved, the Committee

determined that it would apply, in its discretion, a multiplier of between 50% and 150% on the percentage of the goals that were achieved, based on factors such as emerging clinical and preclinical data, and the overall performance of the Company in view of changing market conditions.

2016 Performance

In January 2017, the Compensation Committee met and evaluated our performance against the 2016 corporate goals and determined that the Company satisfied approximately 80% of the corporate goals based on the following achievements:

- Robust enrollment in both the phase 3 MEDALIST study and the phase 3 BELIEVE study of luspatercept, leading to guidance of enrollment completion in both studies in the second half of 2017.
- Substantially enrolled two new cohorts in our phase 2 MDS dose escalation and expansion study of luspatercept, which enabled the presentation of data showing markedly favorable durability of transfusion independence months in the long-term phase 2 extension study.
- Demonstrated 83% of evaluable transfusion dependent patients achieved at least a 33% reduction in transfusion burden after six months of treatment in the phase 2 beta-thalassemia long-term extensions study of luspatercept, with a median duration of the greater than 33% reduction of 6.3 months, with treatment ongoing.
- Fully enrolled two new cohorts in the ACE-083 phase 1 study and demonstrated 8.9% increase in muscle volume in the tibialis anterior muscle in the highest dose group.
- Dosed the first patient in our ACE-083 phase 2 clinical trial for the treatment of patients with facioscapulohumeral dystrophy.
- Enhanced our research, preclinical and manufacturing capabilities and processes by targeted hiring and capital improvements to our research and development infrastructure, enabling the optimization and expansion of our IntelliTrap™ platform and the identification of numerous compounds with compelling preclinical data across a variety of animal models of human disease.
- Successfully completed a public offering in January 2016 that provided us with net proceeds of approximately \$140.4 million, providing us with cash, cash equivalents and investments sufficient to fund our projected operating requirements into the second half of 2019.
- Successfully maintained budgetary discipline, meeting all financial objectives for the year.
- Developed relationships with a variety of potential partners for dalantercept and other preclinical assets, providing the groundwork for a potential partnership of dalantercept pending completion of the dalantercept phase 2 DART trial.

Certain pre-established goals for 2016 were not completed. For sotatercept, clinical studies in chronic kidney disease were deprioritized. With respect to dalantercept, although important progress was made toward study completion, we did not achieve the primary endpoint in the randomized, placebo-controlled part 2 of the DART trial by the end of 2016. For ACE-083, we dosed our first patient in one phase 2 clinical trial, but did not meet our goal of dosing a patient in two phase 2 clinical trials. Finally, we did not submit an IND to the FDA in 2016 for a new systemic muscle agent. Collectively the goals that were not achieved accounted for approximately 20% of the 2016 goals. Accordingly, the achievement level of the 2016 goals was determined by the Compensation Committee to be approximately 80%.

2016 Bonus Payouts

Because at least 50% of the 2016 goals were met, the Compensation Committee was authorized to exercise its discretion to fund bonuses at a level of 50% to 150% of the percentage of corporate goals actually achieved, with the adjustment to be made based on factors such as emerging clinical and preclinical data, and the overall performance of the Company in view of changing market conditions. The Compensation Committee noted several key achievements beyond the stated goals for 2016. In particular, we and Celgene have achieved robust enrollment in both the MEDALIST and BELIEVE phase 3 clinical trials with luspatercept. Additionally, the successful completion of a public offering in January 2016 provided us with cash, cash equivalents and investments sufficient to fund our projected operating requirements into the second half of 2019, well beyond our goal of having sufficient funds through the end of 2018.

The Compensation Committee determined that these achievements beyond the stated goals provided us with disproportionately-positive value creation, and in recognition of these additional achievements, the Compensation Committee recommended that a multiplier of 125% be applied to the 80% achievement level of the corporate goals in calculating annual bonuses under the Incentive Plan for members of our management team, including our named executive officers other than Mr.

Dable. This resulted in the payment of annual cash bonuses at 100% of the target levels for our named executive officers. This recommendation by the Compensation Committee was approved by the independent members of the Board of Directors in March 2017.

Individual performance of our named executive officers other than Mr. Dable was evaluated by Mr. Dable and the Compensation Committee and determined primarily based on the achievement of corporate goals, with the opportunity for adjustment based on each individual's contribution to our corporate goals. For 2016, no adjustments for individual performance were made for our named executive officers.

Mr. Dable's performance for 2016 was evaluated by the Compensation Committee and, due to his limited tenure during 2016, was based primarily on his individual performance and transition to his new role as our Chief Executive Officer. Mr. Dable's target bonus for 2016 was prorated at 5% of his annual base salary for his one month of service based on an annual target of 60% of his base salary. The Compensation Committee recognized Mr. Dable's exceptional performance in 2016 and the successful transition to Mr. Dable becoming our new Chief Executive Officer leading up to and since the effective date of his appointment. As a result, the Compensation Committee recommended to the Board of Directors that Mr. Dable receive a cash bonus equal to 10% of his annual base salary, and this recommendation was approved by the independent members of the Board of Directors. Beginning in fiscal year 2017, Mr. Dable's performance will be determined based on the achievement of our corporate goals, as described above.

Accordingly, our named executive officers received the following annual cash bonuses for 2016:

Name	Target Bonus (%)	Bonus Awarded (%)	Bonus Awarded (\$)
Habib J. Dable (1)	5%	10%	55,000
Kevin F. McLaughlin	40%	40%	147,245
Steven D. Ertel	40%	40%	174,000
Matthew L. Sherman, M.D.	40%	40%	170,980
Ravindra Kumar, Ph.D.	35%	35%	124,250
John L. Knopf, Ph.D. (2)	60%	60%	329,196

(1) Mr. Dable's 60% target bonus for 2016 was prorated based on his appointment as our Chief Executive Officer effective as of December 1, 2016.

(2) Dr. Knopf's performance was evaluated by the Compensation Committee and determined based on the achievement of our corporate goals. Although Dr. Knopf's retirement and resignation as our Chief Executive Officer and President was effective as of November 30, 2016, the Compensation Committee recommended to the Board of Directors that Dr. Knopf's target bonus be paid in full due to his contributions to the achievement of our corporate goals in 2016 through such retirement, his employment for 11/12 of the year, and his continued contributions as a consultant and Chair of our Scientific Advisory Board.

Long-Term Incentives

Long-term incentives are typically awarded annually to our named executive officers in the form of stock options and, beginning in 2016, restricted stock units, or RSUs, granted under our 2013 Equity Incentive Plan. We began awarding a mix of stock options and RSUs as part of our annual awards to our named executive officers to increase executive ownership of our shares, provide a balance to stock option grants, which only have value if the stock appreciates, further encourage retention and increase the alignment of the incentives of our executives with the interests of our stockholders. In deciding to begin awarding RSUs, the Compensation Committee considered the extent to which granting full-value awards is consistent with the compensation practices of our peer group. RSU awards also provide executives with some certainty regarding the value of the compensation they are receiving during periods of stock market volatility, which furthers our fundamental goal of awarding compensation that helps attract and retain highly skilled employees.

Stock Options and Restricted Stock Units

Stock options and, more recently, RSUs, have been used to deliver long-term incentive compensation because they directly align executive pay with the creation of stockholder value since the ultimate value received depends on stock price appreciation after the grant date. Stock options and RSUs also encourage retention when subject to time-based vesting. Stock option awards and either vest in quarterly installments over four years for grants to existing employees, or vest as to 25% of the shares subject to the option after one year and thereafter continue to vest in quarterly installments over the following three years for grants to new hires, including Mr. Dable, generally subject to continued employment. The exercise price of all stock options is equal to the fair market value of our common stock on the grant date, measured as the closing price of our common stock on such date as reported by the NASDAQ Stock Market. Annual RSU awards to existing employees are subject to continued employment and vest in annual installments over three years.

In establishing annual long-term incentive award levels for our named executive officers other than our Chief Executive Officer, and in formulating a recommendation to the Board of Directors on the long-term incentive award to be granted to our Chief Executive Officer, the Compensation Committee evaluates long-term incentives awarded to executives holding comparable positions at our peer companies as well as the broader market survey data provided by Radford. The Compensation Committee and Board of Directors also evaluate overall Company performance over the fiscal year for which the awards are granted.

Based on the Compensation Committee's evaluation, the Compensation Committee granted long-term incentive awards to our named executive officers in March 2016 as set forth in the table below. The Board of Directors granted Mr. Dable's long-term incentive awards in connection with his appointment as our Chief Executive Officer on December 1, 2016, as discussed in greater detail under "Chief Executive Officer Transition and On-Hire Compensation Package" above. The table below reflects the long-term incentive awards granted in 2016, in the form of stock options and RSUs, to each of our named executive officers, with the value of long-term incentives calculated in the same manner as the value of those awards is calculated in our Summary Compensation Table:

Name	Grant Date	Stock Options Awarded (#)	Stock Options Value (\$)	RSUs Awarded (#)	RSUs Value (\$)
Habib J. Dable (1)	1-Dec-16	400,000	8,522,280	62,800	2,200,512
Kevin F. McLaughlin	3-Mar-16	30,800	507,048	5,100	142,647
Steven D. Ertel	3-Mar-16	45,000	740,817	7,500	209,775
Matthew L. Sherman, M.D.	3-Mar-16	36,000	592,653	6,000	167,820
Ravindra Kumar, Ph.D.	3-Mar-16	36,400	599,239	6,000	167,820
John L. Knopf, Ph.D.	3-Mar-16	105,000	1,728,573	17,500	489,475

(1) Mr. Dable's RSUs consisted of performance-based RSUs, as further described below under "Performance-Based Restricted Stock Units" below.

Performance-Based Restricted Stock Units

In furtherance of our pay for performance compensation philosophy and to enable key members of the executive team to share in the potential growth in the Company's value and to encourage such growth, the Compensation Committee developed a one-time performance-based RSU award tied to the achievement of the performance goals over a period of several years, as described below. The Compensation Committee granted these performance-based RSU awards, or PSUs, in conjunction with the adoption of our Executive Equity Ownership Guidelines in September 2015. In 2016, no PSUs were awarded to our named executive officers other than the award to Mr. Dable of 62,800 PSUs in connection with his appointment as our new Chief Executive Officer, as shown in the table above.

Like RSUs, grants of PSUs encourage executive ownership of Acceleron shares, provide balance to stock option grants, which only have value if the stock appreciates, and further encourage retention and align the incentives of our executives with the interests of our stockholders. In addition, the performance-based aspect of the PSUs with performance targets spanning multiple years provides an incentive to our executives to accelerate the achievement of our development program goals to realize the value of the PSUs sooner. When awarding PSUs, the Compensation Committee considered the extent to which including full-value shares in the long-term portion of total compensation is consistent with the compensation practices of our peer group.

The PSUs are subject to both performance- and time-based vesting conditions. A portion of the award will be eligible to vest on the second anniversary of the grant date based on and to the extent of the Company's achievement of certain specified performance goals, as certified by the Compensation Committee, relating to expanding and advancing the Company's pipeline of clinical stage therapeutic candidates, as described below. Thereafter, the award will continue to vest at such time as the applicable performance goals are achieved, as certified by the Compensation Committee, with the PSU awards vesting in full on September 9, 2019, which is the fourth anniversary of the grant date for the PSU awards to all of our named executive officers except Mr. Dable. Vesting of an award is subject to the executive's continued employment on such vesting date, except in the case of certain terminations of employment. In the event that a named executive officer's employment is terminated by the Company without cause or if the named executive officer terminates his or her employment for good reason before the second anniversary of the grant date, any PSUs that have been earned as of such date of termination based on the achievement of the applicable performance goals, as certified by the Compensation Committee, will vest upon such termination of employment.

The performance goals and corresponding vesting percentages underlying the PSUs are as follows:

- Advance Celgene-partnered programs through phase 3 clinical trials and into biological license application submissions.
 - 10% – last patient dosed in a first phase 3 clinical trial
 - 15% – first biological license application submission
 - 10% – last patient dosed in a second phase 3 clinical trial
 - 15% – second biological license application submission
- Advance wholly-owned programs.
 - 10% – last patient dosed in a phase 2 clinical trial for a wholly-owned program
 - 10% – first patient dosed in a phase 2 clinical trial for a wholly-owned program (other than dalantercept)
- Expand clinical pipeline with three new wholly-owned programs in clinical trials.
 - 30% – first patient dosed in a phase 1 clinical trial (10% for each new therapeutic candidate)

V. Additional Compensation Policies and Practices

Equity Ownership Guidelines

In September 2015, we adopted Executive Officer Equity Ownership Guidelines, or the Executive Guidelines, and in December 2016, we adopted Non-Employee Director Equity Ownership Guidelines, or the Director Guidelines, which we collectively refer to as the Guidelines. The Guidelines require our executive officers and non-employee directors to acquire and maintain a specified value of equity interests with respect to our common stock. The Guidelines are designed to further align the interests of our executive officers and non-employee directors with those of our stockholders by ensuring that our executive officers and non-employee directors have a meaningful financial stake in the our long-term success. All shares directly or beneficially owned by the executive officer or non-employee director, including the net exercisable value of outstanding vested stock options (where the market price of our common shares exceeds the exercise price of such option) are included in determining the value of equity owned under the Guidelines. Our guidelines are as follows:

Position	Requirement
Chief Executive Officer	3x base salary
Chief Operating Officer	1.5x base salary
Other executive officers	1x base salary
Non-employee directors	3x annual cash base retainer

Each executive officer and non-employee director is required to achieve the applicable level of equity interest by the later of the date that is five years after his or her designation as an executive officer or non-employee director, as applicable, or five years after the adoption of the Guidelines.

Annual compliance with the Guidelines is assessed on January 1 of each year and is determined based on each executive officer's salary or non-employee director's annual base cash retainer then in effect. Until the required ownership level is reached, executive officers and non-employee directors are required to retain at least 50% of shares of our common stock, net of applicable tax withholding and the payment of any exercise or purchase price (if applicable), received upon the vesting or settlement of equity awards or the exercise of stock options. Once the requisite level has been achieved, ownership of the guideline amount must be maintained for as long as the individual is subject to the Guidelines.

As of January 1, 2017, all of our executive officer's other than our new Chief Executive Officer, Habib Dable, satisfied the ownership requirements under the Executive Guidelines. Mr. Dable was appointed as Chief Executive Officer effective as of December 1, 2016, and he has until five years after his start date, or December 1, 2021, to obtain the requisite equity ownership under the Executive Guidelines. In addition, our non-employee directors have until five years after the adoption of the Director Guidelines, or December 1, 2021, to obtain the requisite equity ownership under the Director Guidelines.

Anti-Hedging and Pledging Policy

We do not allow any of our executive officers, including our named executive officers, or our directors, to enter into any hedging-type transactions in our stock or to pledge our stock.

Benefits

Our named executive officers receive broad-based benefits that are provided to all employees, including medical insurance, dental insurance, vision insurance, group life insurance, accidental death and dismemberment insurance, long- and short-term disability insurance, flexible spending accounts and matching contributions in our 401(k) plan. Our executive officers are eligible to participate in all of our employee benefit plans on the same basis as other employees.

Pursuant to our 401(k) plan, employees' elective deferrals are immediately fully vested and non-forfeitable. We may, but are not required to, make discretionary matching contributions and other employer contributions on behalf of eligible employees under this plan. For fiscal year 2016, we matched a portion of eligible employee contributions up to \$7,000 pursuant to our 401(k) plan's matching formula.

Employee Stock Purchase Plan

In addition, we maintain our tax-qualified 2013 Employee Stock Purchase Plan, or the ESPP, in which all our employees, including our named executive officers, may participate, subject to the eligibility criteria set forth in the ESPP, consistent with the applicable tax regulations. The purpose of the ESPP is to encourage employees, including our named executive officers, to become our stockholders and better align their interests with those of our other stockholders. None of our named executive officers purchased shares of our common stock under the ESPP in fiscal year 2016.

Employment Agreements

We have entered into employment agreements with each of our named executive officers, which provide for initial base salaries, eligibility to participate in the Company's annual bonus plan, and payments and benefits in connection with certain terminations of employment, including in connection with a change in control. We believe that change of control arrangements provide our executives with security that will likely reduce any reluctance they may have to pursue a change of control transaction that could be in the best interests of our stockholders. We also believe that reasonable severance and change of control benefits are necessary to attract and retain high-quality executive officers. These agreements are discussed in more detail below under "Executive Officer and Director Compensation" in subsections "—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Employment Agreements" and "—Potential Payments Upon Termination or Change of Control."

Tax and Accounting Considerations

Section 162(m) of the Internal Revenue Code disallows a tax deduction for any publicly-held corporation for individual compensation exceeding \$1 million in any taxable year for a company's named executive officers, other than its chief financial officer, unless compensation qualifies as performance-based under such section. The Compensation Committee has reviewed our executive compensation program and considered the potential deductibility of the compensation payable under our programs in the context of Section 162(m). Due to our current development stage and given our existing net operating losses, the Compensation Committee determined that the benefits of any potential tax deductibility under Section 162(m) were outweighed by the benefits of providing the Compensation Committee with the flexibility to provide a compensation program that attracts, retains and rewards the executives necessary for our success. Accordingly, the Compensation Committee has and may continue to, in its judgment, authorize compensation payments that do not comply with the exemptions, in whole or in part, under Section 162(m) or that may otherwise be limited as to tax deductibility.

The Compensation Committee regularly considers the accounting implications of significant compensation decisions, especially in connection with decisions that relate to our equity incentive award plans and programs. If accounting standards change, we may revise certain programs to appropriately align accounting expenses of our equity awards with our overall executive compensation philosophy and objectives.

EXECUTIVE OFFICER AND DIRECTOR COMPENSATION

Summary Compensation Table

The following table summarizes the total compensation earned by or paid to our named executive officers for fiscal years 2014, 2015 and 2016, including the grant of a one-time performance-based RSU award tied to the achievement of the performance targets over a period of several years, as described above, granted to Mr. Dable upon his appointment as our new Chief Executive Officer in 2016 and to our other named executive officers in 2015.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)(1)	Option Awards (\$)(2)	Non-Equity Incentive Plan Compensation (\$)(3)	All Other Compensation (\$)	Total (\$)
Habib J. Dable(4) <i>Chief Executive Officer and President</i>	2016	45,833	350,000 (5)	2,200,512 (6)	8,522,280 (6)	55,000	21,932 (7)	10,845,557
	2015	—	—	—	—	—	—	—
	2014	—	—	—	—	—	—	—
Kevin F. McLaughlin <i>Senior Vice President, Chief Financial Officer and Treasurer</i>	2016	368,113	—	142,647	507,048	147,245	7,000 (8)	1,172,053
	2015	353,275	—	1,243,600	1,030,888	123,646	5,000 (8)	2,756,409
	2014	325,000	—	—	—	113,750	2,500 (8)	441,250
Steven D. Ertel <i>Executive Vice President and Chief Operating Officer</i>	2016	435,000	—	209,775	740,817	174,000	7,000 (8)	1,566,592
	2015	404,107	—	1,927,580	1,783,327	158,911	5,000 (8)	4,278,925
	2014	335,000	—	—	—	117,250	2,500 (8)	454,750
Matthew L. Sherman, M.D. <i>Executive Vice President and Chief Medical Officer</i>	2016	427,450	—	167,820	592,654	170,980	7,000 (8)	1,365,904
	2015	413,033	—	1,430,140	1,407,107	161,886	5,000 (8)	3,417,166
	2014	392,000	—	—	—	137,200	2,500 (8)	531,700
Ravindra Kumar, Ph.D.(4) <i>Senior Vice President and Chief Scientific Officer</i>	2016	355,000	—	167,820	599,239	124,250	7,000 (8)	1,253,309
	2015	—	—	—	—	—	—	—
	2014	—	—	—	—	—	—	—
John L. Knopf, Ph.D.(9) <i>Former Chief Executive Officer and President</i>	2016	502,938	—	489,475	1,728,573	329,196	15,333 (10)	3,065,515
	2015	532,680	—	2,767,010	3,796,384	319,608	5,000 (8)	7,420,682
	2014	460,000	—	—	—	276,000	2,500 (8)	738,500

- (1) Amounts shown reflect the grant date fair value of restricted stock units, including performance-based restricted stock units, awarded during fiscal years 2015 and 2016 determined in accordance with the Financial Accounting Standards Board, Accounting Standards Codification Topic 718, Compensation—Stock Compensation. These amounts exclude the value of estimated forfeitures. See Note 11 to our consolidated financial statements for the years ended December 31, 2016, 2015 and 2014 filed with our Annual Report on Form 10-K filed with the SEC on March 1, 2017 for details on the assumptions made in the valuation of these awards.
- (2) Amounts shown reflect the grant date fair value of options awarded during fiscal years 2015 and 2016 determined in accordance with the Financial Accounting Standards Board, Accounting Standards Codification Topic 718, Compensation—Stock Compensation. These amounts exclude the value of estimated forfeitures. See Note 11 to our consolidated financial statements for the years ended December 31, 2016, 2015 and 2014 filed with our Annual Report on Form 10-K filed with the SEC on March 1, 2017 for details on the assumptions made in the valuation of these awards.
- (3) Amounts shown reflect the annual cash bonus award paid to the named executive officer for each of fiscal 2014, 2015 and 2016 that was earned based on Company and individual performance.
- (4) Mr. Dable was appointed as our Chief Executive Officer and President effective as of December 1, 2016, and Dr. Kumar was not a named executive officer prior to fiscal year 2016, and therefore only their 2016 compensation is included in this table.
- (5) Represents a signing bonus paid in connection with Mr. Dable's appointment as Chief Executive Officer and President.
- (6) Mr. Dable's on-hire equity awards in 2016 are intended to serve as his on-hire award and his 2017 annual equity award, and Mr. Dable is not eligible to receive any equity awards in 2017.
- (7) Represents reimbursements of relocation expenses in the amount of \$14,932 and attorneys' fees in connection with Mr. Dable's employment agreement negotiation in the amount of \$7,000 paid in 2016.
- (8) Represents matching contributions made under our 401(k) plan.
- (9) Dr. Knopf retired and resigned as our Chief Executive Officer and President effective as of November 30, 2016, and became Chair of our Scientific Advisory Board and a consultant on December 1, 2016.
- (10) Represents matching contributions made under our 401(k) plan in the amount of \$7,000, and fees paid in respect of his service on our Scientific Advisory Board and as a consultant during December 2016 in the amount of \$8,333.

2016 Fiscal Year Grants of Plan-Based Awards

The following table shows information regarding cash incentive and equity awards granted to our named executive officers during the fiscal year ended December 31, 2016.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards (\$) (2)
		Threshold (\$)	Target (\$)	Maximum (\$)				
Habib J. Dable	12/01/2016	—	—	—	—	400,000 (3)	35.04	8,522,280
	12/01/2016	—	—	—	62,800 (3)	—	—	2,200,512
	n/a	—	27,500	—	—	—	—	—
Kevin F. McLaughlin	03/03/2016	—	—	—	—	30,800	27.97	507,048
	03/03/2016	—	—	—	5,100	—	—	142,647
	n/a	73,623	147,245	220,868	—	—	—	—
Steven D. Ertel	03/03/2016	—	—	—	—	45,000	27.97	740,817
	03/03/2016	—	—	—	7,500	—	—	209,775
	n/a	87,000	174,000	261,000	—	—	—	—
Matthew L. Sherman, M.D.	03/03/2016	—	—	—	—	36,000	27.97	592,654
	03/03/2016	—	—	—	6,000	—	—	167,820
	n/a	85,490	170,980	256,470	—	—	—	—
Ravindra Kumar, Ph.D.	03/03/2016	—	—	—	—	36,400	27.97	599,239
	03/03/2016	—	—	—	6,000	—	—	167,820
	n/a	62,125	124,250	186,375	—	—	—	—
John L. Knopf, Ph.D.	03/03/2016	—	—	—	—	105,000	27.97	1,728,573
	03/03/2016	—	—	—	17,500	—	—	489,475
	n/a	164,598	329,196	493,794	—	—	—	—

(1) Represents the threshold, target and maximum award amounts applicable to 2016 performance-based annual cash bonus awards for each named executive officer under the Incentive Plan. Mr. Dable was appointed as our Chief Executive Officer and President effective as of December 1, 2016; as such, he did not have a 2016 bonus threshold and maximum because his bonus was determined separately from our other named executive officers, and was based primarily on his individual performance rather than achievement of our corporate goals due to his limited tenure during 2016.

(2) Represents the aggregate fair value computed as of the grant date of the awards granted under our 2013 Equity Incentive Plan, determined in accordance with the Financial Accounting Standards Board, Accounting Standards Codification Topic 718, Compensation-Stock Compensation, excluding the value of estimated forfeitures. See Note 11 to our consolidated financial statements for the years ended December 31, 2016, 2015 and 2014 filed with our Annual Report on Form 10-K filed with the SEC on March 1, 2017 for details on the assumptions made in the valuation of these awards.

(3) Mr. Dable's on-hire equity awards in 2016 are intended to serve as his on-hire award and his 2017 annual equity award, and Mr. Dable is not eligible to receive any equity awards in 2017.

Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table

Employment Agreements

We have entered into employment agreements with each of our named executive officers, which provide for initial base salaries, eligibility to participate in the Company's annual bonus plan, and payments and benefits in connection with certain terminations of employment, including in connection with a change of control. Payments and benefits that may be payable in connection with certain terminations of employment are described in more detail under "Potential Payments Upon Termination or Change of Control."

Habib J. Dable. We entered into an employment agreement with Mr. Dable, pursuant to which we agreed to employ Mr. Dable as our Chief Executive Officer and President beginning on December 1, 2016. Pursuant to the employment agreement, Mr. Dable received a signing bonus of \$350,000 and is eligible to receive reimbursements of relocation expenses of up to \$200,000, subject in each case to repayment if Mr. Dable voluntarily terminates his employment without good reason (as defined in the employment agreement) within twelve months of his start date. Mr. Dable also received an option to purchase 400,000 shares of our common stock, and performance-based restricted stock units representing the right to receive up to 62,800 shares of our common stock. Mr. Dable's on-hire equity awards in 2016 are intended to serve as his on-hire award and his 2017 annual equity award, and Mr. Dable is not eligible to receive any equity awards in 2017. Mr. Dable's employment

agreement will continue until the agreement is terminated by us or Mr. Dable under the terms of the agreement. Under his employment agreement, he is eligible to receive a performance-based cash bonus each year in an amount targeted at 60% of his annual base salary, which amount is to be based on the achievement of performance goals established by the Board of Directors or the Compensation Committee each fiscal year.

Kevin F. McLaughlin. We entered into an amended and restated employment agreement with Mr. McLaughlin, pursuant to which we agreed to continue to employ Mr. McLaughlin as our Senior Vice President and Chief Financial Officer. Mr. McLaughlin's employment agreement will continue until the agreement is terminated by us or Mr. McLaughlin under the terms of the agreement. Under his employment agreement, he is eligible to receive a performance-based cash bonus each year in an amount equal to a percentage of his annual base salary for such year as established by the Board of Directors or the Compensation Committee, which amount is to be based on the achievement of performance goals established by the Board of Directors or the Compensation Committee each fiscal year.

Steven D. Ertel. We entered into an amended and restated employment agreement with Mr. Ertel, pursuant to which we agreed to continue to employ Mr. Ertel as our Senior Vice President and Chief Business Officer. In March 2015, we promoted Mr. Ertel to Executive Vice President and Chief Operating Officer. Mr. Ertel's employment agreement will continue until the agreement is terminated by us or Mr. Ertel under the terms of the agreement. Under his employment agreement, he is eligible to receive a performance-based cash bonus each year in an amount equal to a percentage of his annual base salary for such year as established by the Compensation Committee or Board of Directors, which amount is to be based on the achievement of performance goals established by the Board of Directors each fiscal year.

Matthew L. Sherman, M.D. We entered into an amended and restated employment agreement with Dr. Sherman, pursuant to which we agreed to continue to employ Dr. Sherman as our Senior Vice President and Chief Medical Officer. In March 2015, we promoted Dr. Sherman to Executive Vice President and Chief Medical Officer. Dr. Sherman's employment agreement will continue until the agreement is terminated by us or Dr. Sherman under the terms of the agreement. Under his employment agreement, he is eligible to receive a performance-based cash bonus each year in an amount equal to a percentage of his annual base salary for such year as established by the Compensation Committee or Board of Directors, which amount is to be based on the achievement of performance goals established by the Board of Directors each fiscal year.

Ravindra Kumar, Ph.D. We entered into an employment agreement with Dr. Kumar, pursuant to which we agreed to continue to employ Dr. Kumar as our Vice President and Chief Scientific Officer. In March 2016, we changed Dr. Kumar's title to Senior Vice President and Chief Scientific Officer. Dr. Kumar's employment agreement will continue until the agreement is terminated by us or Dr. Kumar under the terms of the agreement. Under his employment agreement, he is eligible to receive a performance-based cash bonus each year under in an amount equal to a percentage of his annual base salary for such year as established by the Compensation Committee or Board of Directors, which amount is to be based on the achievement of performance goals established by the Board of Directors each fiscal year.

The employment agreements with our named executive officers also contain severance and change of control benefits. For a description and quantification of benefits payable to the executive officers in connection with a termination of employment or a change of control pursuant to these arrangements, see "—Potential Payments Upon Termination or Change of Control."

Consulting Agreement

We entered into a consulting agreement with our former Chief Executive Officer and President, Dr. Knopf, in connection with his retirement and resignation as our Chief Executive Officer and President effective as of November 30, 2016. Pursuant to the consulting agreement, Dr. Knopf agreed, effective as of December 1, 2016, to serve as the Chair of our Scientific Advisory Board and to provide consulting services to us, up to a maximum of 1.5 days per week. Dr. Knopf's position as a consultant and Chair of our Scientific Advisory Board continues until terminated by us or Dr. Knopf at any time, with or without cause. In exchange for Dr. Knopf's services, we have agreed to pay Dr. Knopf a consulting fee of \$100,000 per year. Dr. Knopf's equity awards outstanding as of the date of his retirement and resignation as our Chief Executive Officer and President continue to be administered pursuant to the applicable equity plans and award agreements.

Equity Awards

In 2016, we granted our named executive officers other than Mr. Dable options to purchase our common stock and restricted stock units, and we granted Mr. Dable an option to purchase our common stock and performance-based restricted stock units in connection with Mr. Dable's appointment as our Chief Executive Officer. For a description of these equity awards, see the discussion above in "Compensation Discussion and Analysis—Elements of Executive Compensation—Long-Term Incentives."

Outstanding Equity Awards at 2016 Fiscal Year-End

The following table sets forth information regarding outstanding equity awards held by our named executive officers as of December 31, 2016:

Name	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)(6)	Option Expiration Date (7)	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested \$(10)
Habib J. Dable	—	—	—	—	62,800 (8)	1,602,656
	—	400,000 (4)	35.04	12/1/2026	—	—
Kevin F. McLaughlin	—	—	—	—	40,000 (8)	1,020,800
	—	—	—	—	5,100 (9)	130,152
	16,251 (4)	—	3.88	12/2/2020	—	—
	9,400 (1)	—	5.28	12/16/2021	—	—
	18,750 (1)	—	7.12	12/12/2022	—	—
	21,750 (1)	7,250 (1)	24.11	12/5/2023	—	—
	17,938 (1)	23,062 (1)	41.20	1/8/2025	—	—
5,775 (1)	25,025 (1)	27.97	3/3/2026	—	—	
Steven D. Ertel	—	—	—	—	62,000 (8)	1,582,240
	—	—	—	—	7,500 (9)	191,400
	1,883 (1)	—	5.28	12/16/2021	—	—
	12,500 (1)	—	7.12	12/12/2022	—	—
	21,750 (1)	7,250 (1)	24.11	12/5/2023	—	—
	17,938 (1)	23,062 (1)	41.20	1/8/2025	—	—
	13,125 (1)	16,875 (1)	41.01	3/3/2025	—	—
	8,438 (1)	36,562 (1)	27.97	3/3/2026	—	—
Matthew L. Sherman, M.D.	—	—	—	—	46,000 (8)	1,173,920
	—	—	—	—	6,000 (9)	153,120
	8,000 (1)	—	7.12	12/12/2022	—	—
	21,750 (1)	7,250 (1)	24.11	12/5/2023	—	—
	17,938 (1)	23,062 (1)	41.20	1/8/2025	—	—
	6,563 (1)	8,437 (1)	41.01	3/4/2025	—	—
	6,750 (1)	29,250 (1)	27.97	3/3/2026	—	—
Ravindra Kumar, Ph.D.	—	—	—	—	40,000 (8)	1,020,800
	—	—	—	—	6,000 (9)	153,120
	6,761 (1)	—	5.28	6/7/2022	—	—
	937 (1)	—	7.12	12/12/2022	—	—
	9,439 (1)	7,250 (1)	24.11	12/5/2023	—	—
	17,938 (1)	23,062 (1)	41.20	1/8/2025	—	—
	2,275 (1)	29,575 (1)	27.97	3/3/2026	—	—
John L. Knopf, Ph.D.	—	—	—	—	89,000 (8)	2,271,280
	—	—	—	—	17,500 (9)	446,600
	89,896 (1)	—	5.08	3/27/2018	—	—
	17,122 (1)	—	5.28	11/13/2022	—	—
	28,125 (2)	—	5.28	11/13/2022	—	—
	37,500 (5)	—	5.28	11/13/2022	—	—
	21,524 (3)	—	5.28	11/13/2022	—	—
	82,500 (1)	27,500 (1)	24.11	12/5/2023	—	—
	66,063 (1)	84,937 (1)	41.20	1/8/2025	—	—
	19,688 (1)	85,312 (1)	27.97	3/3/2026	—	—

- (1) Reflects time-based options to purchase shares of our common stock that vest in equal quarterly installments over four years generally subject to the executive's continued employment.
- (2) Reflects time- and performance-based options granted to Dr. Knopf to purchase shares of our common stock that vested as to 1/12th of the shares subject to the option on the date that is three months from the date on which the company achieved a specified performance condition related to a financial goal and that continued to vest thereafter on a quarterly basis over three years on each three-month anniversary of the initial vesting date. On January 8, 2015, our Compensation Committee affirmed that the performance goal had been met as of January 28, 2014. As a result, 1/12th of the shares subject to the stock option vested on January 28, 2014, and 1/11th of the remainder of the shares vested on each of the subsequent three-month anniversary of such date. To the extent unvested, the option fully vested on September 6, 2016.
- (3) Reflects time- and performance-based options granted to Dr. Knopf to purchase shares of our common stock that vested as to 1/12th of the shares subject to the option on the date that is three months from the date on which the company achieves a specified performance condition related to a financial goal and that continued to vest thereafter on a quarterly basis over three years on each three-month anniversary of the initial vesting date. On December 5, 2013, the Board of Directors determined that the performance goal had been met on September 24, 2013. As a result, 1/12th of the shares subject to the stock option vested on December 24, 2013, and 1/11th of the remainder of the shares vested on each of the subsequent three-month anniversaries of such date. To the extent unvested, the option fully vested on September 6, 2016.
- (4) Reflects time-based options to purchase shares of our common stock, vesting as to 25% of the shares subject to the option on the first anniversary of the vesting commencement date and thereafter in equal quarterly installments over the following three years, subject to the executive's continued employment.
- (5) Reflects time- and performance-based options granted to Dr. Knopf to purchase shares of our common stock that vested as to 1/12th of the shares subject to the option on the date that is three months from the date on which the company achieves a specified performance condition related either to a financial goal or clinical study milestone and that continued to vest thereafter on a quarterly basis over three years on each three-month anniversary of the initial vesting date. To the extent unvested, the option fully vested on September 6, 2016.
- (6) The exercise price of the stock options was not less than the fair market value of a share of our common stock on the date of grant, as determined by the Board of Directors based, in part, on an independent third party valuation with respect to the period prior to our initial public offering. Stock options granted subsequent to us becoming a public company were granted with an exercise price equal to the closing price of a share of our common stock on the date the stock option was granted.
- (7) All stock options have a 10-year term measured from the date of grant.
- (8) Reflects performance-based restricted stock units. For a description of the performance- and time-based vesting conditions of these awards, see the discussion above in "Compensation Discussion and Analysis—Performance-Based Restricted Stock Units."
- (9) Reflects time-based restricted stock units underlying shares of our common stock that vest in equal annual installments over three years generally subject to the executive's continued employment.
- (10) The market value of the stock awards is determined by multiplying the number of shares subject to the award by \$25.52, which was the closing price of our common stock on December 30, 2016, the last trading day of the fiscal year.

Option Exercises and Stock Vested in 2016

The table below sets forth the number of shares acquired and the value realized upon the exercise of stock options during fiscal year 2016 by each of our named executive officers. No stock awards held by our named executive officers vested during 2016.

Name	Option Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise \$(1)
Habib J. Dable	—	—
Kevin F. McLaughlin	20,600	608,214
Steven D. Ertel	68,961	1,944,281
Matthew L. Sherman, M.D.	52,896	1,381,011
Ravindra Kumar, Ph.D.	66,162	1,373,973
John L. Knopf, Ph.D.	480,833	13,551,631

- (1) The value realized upon exercise is the difference between the fair value of our common stock at the time of exercise and the exercise price, multiplied by the number of shares acquired on exercise.

Pension Benefits

We do not have any qualified or non-qualified defined benefit plans.

Nonqualified Deferred Compensation

We do not have any non-qualified defined contribution plans or other deferred compensation plans.

Potential Payments Upon Termination or Change of Control

Pursuant to the employment agreements between the Company and each of our named executive officers other than Dr. Knopf, each named executive officer is entitled to payments and benefits upon certain terminations of the executive's employment and/or a change of control, as described below. We believe that change of control arrangements provide our executives with security that will likely reduce any reluctance they may have to pursue a change of control transaction that

could be in the best interests of our stockholders. We also believe that reasonable severance and change of control benefits are necessary in order to attract and retain high-quality executive officers.

The table below reflects, as applicable, cash severance, option acceleration, RSU acceleration, and continuation of health benefits payable to each of our named executive officers in connection with (1) a change of control of the Company, (2) the termination of the executive's employment without cause or for good reason following a change of control, (3) the termination of the executive's employment without cause or for good reason (other than following a change of control), or (4) the termination of the executive's employment due to his death or disability; in each case, assuming that the triggering event took place on December 31, 2016, and based on the closing stock price of our common stock on December 30, 2016, the last trading day of fiscal year 2016 (\$25.52 per share). Dr. Knopf did not receive any severance payments or benefits in connection with his termination of employment on November 30, 2016.

Name and Benefit	Change of Control (\$)	Termination Without Cause or for Good Reason Following a Change of Control (\$)	Termination Without Cause or for Good Reason (\$)	Termination Due to Death or Disability (\$)
<i>Habib J. Dable</i>				
Cash Severance	—	1,320,000	1,320,000	—
Option Acceleration	—	—	—	—
RSU Acceleration	— (1)	1,602,656	—	—
Health Benefits	—	35,822	35,822	—
<i>Kevin F. McLaughlin</i>				
Cash Severance	—	515,358	368,113	176,113 (2)
Option Acceleration	2,556	10,223	5,113	10,223
RSU Acceleration	— (1)	1,150,952	—	—
Health Benefits	—	23,881	23,882	—
<i>Steven D. Ertel</i>				
Cash Severance	—	609,000	435,000	243,000 (2)
Option Acceleration	2,556	10,223	7,666	10,223
RSU Acceleration	— (1)	1,773,640	—	—
Health Benefits	—	23,881	23,882	—
<i>Matthew L. Sherman, M.D.</i>				
Cash Severance	—	598,430	427,450	235,450 (2)
Option Acceleration	—	10,223	—	—
RSU Acceleration	— (1)	1,327,040	—	—
Health Benefits	—	1,952	1,952	—
<i>Ravindra Kumar, Ph.D.</i>				
Cash Severance	—	479,250	355,000	163,000 (2)
Option Acceleration	—	10,223	—	—
RSU Acceleration	— (1)	1,173,920	—	—
Health Benefits	—	23,881	23,882	—
<i>John L. Knopf, Ph.D.</i>				
Cash Severance	—	—	—	—
Option Acceleration	—	—	—	—
RSU Acceleration	— (1)	2,271,280	—	—
Health Benefits	—	—	—	—

(1) Assumes the performance-based restricted stock units are continued, assumed or substituted upon a change of control.

(2) Cash severance represents the amount by which 100% of the executive's annual base salary exceeds that which would be paid to the executive pursuant to the Company's long-term disability insurance benefits for one year. This cash severance is paid by the Company only in the event of an executive's disability, and not in the event of an executive's death.

Change of Control. For stock options granted to Dr. Sherman and Messrs. McLaughlin and Ertel, prior to each of these executives entering into his amended and restated employment agreement in August 2013 or January 2014, as applicable, which

we refer to as the effective date of the employment agreement, immediately upon a change of control, 25% of any such unvested stock options then held by each of these executives will vest. In addition, if the performance-based restricted stock units granted in September 2015 and March 2016 to our named executive officers other than Mr. Dable and to Mr. Dable, respectively, which we refer to as the PSUs, are not continued or assumed in connection with a change of control, then all outstanding and unvested PSUs will vest immediately upon the change of control.

All other stock options and all RSUs granted to our named executive officers other than Dr. Knopf are subject to double-trigger vesting acceleration, as described below under "*Termination of Employment Without Cause or for Good Reason Following a Change of Control.*"

Change of control is defined under the employment agreements with our named executive officers other than Dr. Knopf and in the PSU award agreements generally as (i) the acquisition of beneficial ownership, directly or indirectly by any person, of our securities representing a majority or more of the combined voting power of our then outstanding securities, other than an acquisition of securities for investment purposes pursuant to a bona fide financing; (ii) a merger or consolidation with any other corporation in which our holders of voting securities prior to the merger or consolidation do not own more than 50% of the total voting securities of the surviving corporation; or (iii) the sale or disposition of all or substantially all of our assets.

Termination of Employment Without Cause or for Good Reason Following a Change of Control. For our named executive officers other than Dr. Knopf, if, within one year after the consummation of a change of control, the executive's employment is terminated by us (or our successor) other than for cause or the executive terminates his employment for good reason (as such terms are defined in the executive's employment agreement): (1) we will pay the executive a lump sum payment equal to the product of 1.5 times, in the case of Mr. Dable, or one times, in the case of Drs. Sherman and Kumar and Messrs. McLaughlin and Ertel, the sum of (x) executive's then-current annual base salary plus (y) 100% of the executive's target bonus for the year in which the termination occurs, (2) 100% of any unvested equity and equity-based awards (including any PSUs that were continued or assumed in connection with the change of control) held by the executive at the time of such termination will fully vest, and (3) if the executive elects under COBRA or any successor law to continue participation in our group health and/or dental plans in which the executive was participating prior to such termination, we will pay or, at our option reimburse the executive for, the full premium cost of that participation for 18 months, in the case of Mr. Dable, or 12 months, in the case of Drs. Sherman and Kumar and Messrs. McLaughlin and Ertel, following the date the executive's employment terminates or, if earlier, until the date the executive becomes eligible to enroll in such plans of a new employer.

If Dr. Knopf's service as a consultant and Chair of our Scientific Advisory Board is terminated by us (or our successor) other than for cause or Dr. Knopf terminates his service for good reason within the one-year period following the change of control, then Dr. Knopf is entitled to accelerated vesting for any PSUs that were continued or assumed in connection with the change of control.

Termination of Employment Without Cause or for Good Reason. For our named executive officers other than Dr. Knopf, if the executive's employment is terminated by us other than for cause or the executive terminates his employment for good reason (as such terms are defined in the executive's employment agreement) under circumstances other than as described in the preceding paragraph: (1) we will continue to pay the executive his base salary for a period of 18 months, in the case of Mr. Dable, or 12 months, in the case of Drs. Sherman and Kumar and Messrs. McLaughlin and Ertel, in accordance with our payroll policy, (2) any unvested stock option awards the executive, other than Mr. Dable and Dr. Kumar, holds at the time of such termination of employment that are subject to time-based vesting and that were granted on or prior to the effective date of the employment agreement will vest to the extent such stock option awards would have otherwise vested over the next nine months in the case of Dr. Sherman and Mr. Ertel, or six months in the case of Mr. McLaughlin, following such termination of employment, (3) prior to the second anniversary of the grant date of the PSUs, any PSUs that have been earned as of such date of termination based on the achievement of the applicable performance goals, as certified by our Compensation Committee, will vest upon such termination, and (4) if the executive elects under COBRA or any successor law to continue participation in our group health and/or dental plans in which the executive was participating prior to such termination, we will pay or, at our option reimburse the executive for, the full premium cost of that participation for 18 months in the case of Mr. Dable, or 12 months in the case of Drs. Sherman and Kumar and Messrs. McLaughlin and Ertel. If Mr. Dable's employment is terminated by us other than for cause or Mr. Dable terminates his employment for good reason, in each case, on or before the one-year anniversary of his start date, then we will also pay him an amount equal to 1.5 times his target annual bonus for the year of such termination.

For Dr. Knopf, if his service as a consultant and Chair of our Scientific Advisory Board is terminated by us other than for cause prior to the second anniversary of the grant date of the PSUs, then any PSUs that have been earned as of such date of termination based on the achievement of the applicable performance goals, as certified by our Compensation Committee, will vest upon such termination.

Termination of Employment Due to Death or Disability. For Dr. Sherman and Messrs. McLaughlin and Ertel, (1) if the executive's employment terminates due to the executive's death or disability, then all unvested stock options then held by the executive that were granted on or prior to the effective date of the executive's employment agreement will vest as of the date of termination, and (2) for Drs. Kumar and Sherman and Messrs. McLaughlin and Ertel, in the event we terminate the executive's employment due to disability, to the extent we do not maintain a disability plan providing for continuation of the executive's base salary for one year following the date of such termination, during this period we will pay the executive, at the time the executive's base salary would otherwise have been paid, an amount equal to the excess of 100% of the executive's base salary over the disability insurance benefits, if any, actually paid to the executive.

Severance Subject to Release of Claims and Compliance With Restrictive Covenants. Our obligation to provide our named executive officers with any severance payments or other benefits under the employment agreement, other than Dr. Knopf who is no longer our employee, is conditioned on the executive signing an effective release of claims in our favor and the executive's continued full performance of his obligations under the Employee Confidentiality, Non-Competition and Proprietary Information Agreement relating to confidentiality, non-competition and non-solicitation.

Section 280G. The employment agreements with our executives provide that if a change in ownership or control occurs and any portion of the payments made pursuant to the employment agreement or otherwise constitutes an excess parachute payment under Section 280G of the Internal Revenue Code of 1986, as amended, then the executive will be entitled to receive an amount of such payments reduced so that no portion of the payments would constitute an excess parachute payment, or the amount otherwise payable to the executive under the employment agreement or otherwise reduced by all applicable taxes, including the excise tax, whichever amount results in the greater amount payable to the executive.

Director Compensation

Our non-employee director compensation policy is designed to provide a total compensation package that enables us to attract and retain, on a long-term basis, high caliber non-employee directors. Under the policy for 2016, all non-employee directors are eligible to receive cash compensation as set forth below:

	2016 Annual Retainer
Board of Directors:	
All non-employee members	\$ 35,000
Additional retainer for Chair of the Board of Directors	\$ 35,000
Audit Committee:	
Chair	\$ 15,000
Non-Chair members	\$ 7,500
Compensation Committee:	
Chair	\$ 10,000
Non-Chair members	\$ 5,000
Nominating and Corporate Governance Committee:	
Chair	\$ 7,500
Non-Chair members	\$ 3,750

Under our non-employee director compensation policy for 2016, each person who is initially appointed or elected to the Board of Directors is eligible to receive an option to purchase 20,000 shares of our common stock under our 2013 Equity Incentive Plan on the date he or she first becomes a non-employee director, which will vest quarterly in equal installments over a three-year period, generally subject to the non-employee director's continued service. In addition, each continuing non-employee director is eligible to receive an annual option to purchase 10,000 shares of our common stock, which will vest in full on the first anniversary of the grant date, generally subject to the non-employee director's continued service. The annual option is prorated when granted to any non-employee director who becomes a non-employee director during the fiscal year, based on the portion of the fiscal year that the director served on the Board of Directors. A person initially appointed as the Chair of the Board of Directors is eligible to receive an additional option to purchase 10,000 shares of our common stock, which will vest quarterly over three years after the date of grant, generally subject to the non-employee director's continued service. All options granted to members of the Board of Directors are granted with an exercise price equal to the fair market value of a share of our common stock on the date of grant. We also reimburse each member of the Board of Directors who is not an employee for reasonable travel and other expenses in connection with attending meetings of the Board of Directors.

In March 2016, pursuant to our non-employee director compensation policy, each of our non-employee directors, other than Mr. McCourt and Dr. Golumbeski, received an option to purchase 10,000 shares of our common stock. These stock options will vest in full on the first anniversary of the grant date, generally subject to the non-employee director's continued service. In July 2016, in connection with Mr. McCourt's appointment to the Board of Directors, we granted Mr. McCourt an option to purchase 20,000 shares of our common stock. This stock option vests quarterly over the three years after the date of grant, generally subject to Mr. McCourt's continued service.

The annual stock options granted in March 2016 to members of the Board of Directors each had a grant date fair value of \$157,724, and the stock options granted to Mr. McCourt in July 2016 had a grant date fair value of \$391,536. These values were determined in accordance with the Financial Accounting Standards Board, Accounting Standards Codification Topic 718, Compensation-Stock Compensation.

The following table sets forth information concerning the cash compensation earned by our directors during 2016 and equity granted in 2016. Mr. Dable and Dr. Knopf, as current and former employee-directors, respectively, and Dr. Golumbeski, pursuant to policy of Celgene Corporation, each received no additional compensation for service as a director, and, consequently, are not included in this table. The compensation received by Mr. Dable and Dr. Knopf as employees during 2016 is included in the "Summary Compensation Table" above.

Name	Fees Paid in Cash \$(1)	Option Awards \$(2)(3)	Total (\$)
Jean M. George	50,000	157,724	207,724
Terrence C. Kearney	50,000	157,724	207,724
Tom Maniatis, Ph.D.	40,000	157,724	197,724
Thomas McCourt	17,452	391,536	408,988
Terrance G. McGuire	42,347	157,724	200,071
Francois Nader, M.D.	70,000	157,724	227,724
Richard F. Pops	38,752	157,724	196,476
Joseph S. Zakrzewski	52,500	157,724	210,224

(1) Amounts represent annual cash compensation for services rendered by each member of the Board of Directors.

(2) See table below.

(3) Amounts shown reflect the grant date fair value of options awarded during fiscal 2016, determined in accordance with the Financial Accounting Standards Board, Accounting Standards Codification Topic 718, *Compensation—Stock Compensation*. These amounts exclude the value of estimated forfeitures. See Note 11 to our consolidated financial statements for the year ended December 31, 2016, 2015 and 2014 filed with our Annual Report on Form 10-K filed with the SEC on March 1, 2017 for details on the assumptions made in the valuation of these awards.

The following table sets forth the aggregate number of exercisable and unexercisable option awards outstanding held by our non-employee directors as of December 31, 2016:

Name	Option Awards	
	Exercisable (#)	Unexercisable (#)
Jean M. George	30,000	10,000
George Golumbeski, Ph.D.	—	—
Terrence C. Kearney	19,665	15,000
Tom Maniatis, Ph.D.	57,500	10,000
Thomas McCourt	1,667	18,333
Terrance G. McGuire	30,000	10,000
Francois Nader, M.D.	18,909	21,667
Richard F. Pops	80,000	10,000
Joseph S. Zakrzewski	48,750	10,000

Equity Compensation Plan Information

The following table provides certain aggregate information with respect to all of our equity compensation plans in effect as of December 31, 2016:

Plan category	(a)	(b)	(c)
	Number of securities to be issued upon exercise of outstanding options, warrants and rights (2)	Weighted-average exercise price of outstanding options, warrants and rights (3)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders (1)	3,403,899	\$ 25.55	2,217,110 (4)
Equity compensation plans not approved by security holders	—	—	—
Total	3,403,899	\$ 25.55	2,217,110

(1) These plans consist of our 2013 Equity Incentive Plan, or our 2013 Plan, our 2003 Stock Option and Restricted Stock Plan, or our 2003 Plan, and our 2013 Employee Stock Purchase Plan. Our 2013 Plan was adopted in September 2013 and our 2003 Plan expired in December 2013, and thereafter no further stock options were granted under the 2003 Plan. All outstanding stock options granted under the 2003 Plan as of the 2003 Plan expiration date remained outstanding and subject to their terms and the terms of the 2003 Plan.

(2) Represents shares underlying outstanding stock options and restricted stock units.

(3) Restricted stock units have no exercise price and, therefore, the weighted average exercise price does not take these awards into account.

(4) Represents 1,996,568 shares of common stock available for future issuance under our 2013 Plan and 220,542 shares of common stock available for future issuance under our 2013 Employee Stock Purchase Plan. Our 2013 Plan contains an "evergreen provision" which allows for an annual increase in the number of shares available for issuance under the plan on the first day of each of our fiscal years during the period beginning on January 1, 2014 and ending on the January 1, 2023. The annual increase in the number of shares shall be equal to the lowest of (i) 3,150,000 shares; (ii) 4% of our outstanding shares on the first day of the fiscal year; and (iii) an amount determined by the Board of Directors.

COMPENSATION COMMITTEE REPORT

The Compensation Committee of our Board of Directors has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K, which appears elsewhere in this proxy statement, with our management. Based on this review and discussion, the Compensation Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in our proxy statement and incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2016.

Members of the Acceleron Pharma Inc. Compensation Committee

Joseph S. Zakrzewski, Chair

Tom Maniatis, Ph.D.

Thomas McCourt

AUDIT COMMITTEE REPORT

The Audit Committee has reviewed the audited consolidated financial statements of Acceleron for the year ended December 31, 2016 and has discussed these statements with management and Ernst & Young LLP, or Ernst & Young, the Company's independent registered public accounting firm. Acceleron management is responsible for the preparation of the Company's financial statements and for maintaining an adequate system of disclosure controls and procedures and internal control over financial reporting for that purpose. The independent registered public accounting firm audits the annual consolidated financial statements prepared by management, expresses an opinion as to whether those consolidated financial statements present fairly the consolidated financial position, results of operations and cash flows of Acceleron Pharma Inc. in conformity with U.S. generally accepted accounting principles and discusses any issues they believe should be raised with us. The Audit Committee is responsible for providing independent, objective oversight of the Company's accounting functions and internal controls. The Audit Committee also reviewed management's report on its assessment of the effectiveness of the Company's internal control over financial reporting and the independent registered public accounting firm's report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2016.

The Audit Committee also received from, and discussed with, Ernst & Young the written disclosures and other communications that the Company's independent registered public accounting firm is required to provide to the Audit Committee, including the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (Communication with Audit Committees), as adopted by the Public Company Accounting Oversight Board, or PCAOB, in Rule 3200T, which we refer to as SAS 61.

Ernst & Young also provided the Audit Committee with the written disclosures and the letter required by Rule 3526 of the PCAOB. PCAOB Rule 3526 requires independent registered public accounting firms annually to disclose in writing all relationships that in their professional opinion may reasonably be thought to bear on independence, to confirm their perceived independence and engage in a discussion of independence. The Audit Committee has reviewed this disclosure and has discussed with Ernst & Young their independence from Acceleron.

Based on its discussions with management and our independent registered public accounting firm, and its review of the representations and information provided by management and our independent registered public accounting firm, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in the Acceleron Annual Report on Form 10-K for the year ended December 31, 2016, for filing with the Securities and Exchange Commission.

Members of the Acceleron Pharma Inc. Audit Committee

Terrence C. Kearney, Chair

Jean M. George

Joseph S. Zakrzewski

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our executive officers and directors and persons who own more than 10% of a registered class of our equity securities to file initial reports of ownership and reports of changes in ownership with the SEC. Such persons are required by regulation of the SEC to furnish us with copies of all Section 16(a) forms they file. Based solely on our review of the copies of such forms or written representations from certain reporting persons received by us with respect to fiscal year 2016, we believe that our executive officers and directors and persons who own more than 10% of a registered class of our equity securities have complied with all applicable filing requirements, other than a Form 4 that was filed late on December 19, 2016 by Jean George, one of our directors, in connection with the exercise of warrants that occurred on December 7, 2016.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Except as described below, there have been no transactions since January 1, 2016 in which we were a party, the amount involved exceeded or will exceed \$120,000, and in which any related person had a direct or indirect material interest.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. These agreements will require us to indemnify these individuals and, in certain cases, affiliates of such individuals, to the fullest extent permissible under Delaware law against liabilities that may arise by reason of their service to us or at our direction, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

Registration Rights Agreement

In connection with our Series F preferred stock financing, on December 22, 2011, we entered into an amended and restated registration rights agreement with the holders of all of our then-outstanding shares of preferred stock including entities with which certain of our directors are affiliated. These entities that are parties to the agreement consist of Polaris Venture Partners IV, L.P. (affiliated with Terrance G. McGuire), Advanced Technology Ventures and related funds (affiliated with Jean M. George), and Celgene Corporation (affiliated with George Golumbeski). The agreement provides that these holders, for so long as they may hold registrable securities, as defined in the agreement, have the right to demand that we file a registration statement with respect to the common stock issued upon conversion of our preferred stock. These holders may also request that shares of common stock held by them be included in certain registration statements that we are otherwise filing.

Related Party Transactions Policy

We have adopted a related party transactions policy that governs the review and approval of related party transactions. Pursuant to this policy, if we want to enter into a transaction with a related party or an affiliate of a related party, our General Counsel will review the proposed transaction to determine, based on applicable NASDAQ and SEC rules, if such transaction requires pre-approval by the Audit Committee and/or Board of Directors. If pre-approval is required, such matters will be reviewed at the next regular or special Audit Committee and/or Board of Directors meeting. We may not enter into a related party transaction unless our General Counsel has either specifically confirmed that no further reviews are necessary or that all requisite corporate reviews have been obtained.

PROPOSAL NO. 1—ELECTION OF DIRECTORS

In accordance with the Company's certificate of incorporation and bylaws, the Board of Directors is divided into three classes of approximately equal size. The members of each class are elected to serve a three-year term with the term of office of each class ending in successive years. Jean M. George, George Golumbeski, Ph.D., Thomas A. McCourt and Francois Nader, M.D. are the Class I directors whose terms expire at the Company's 2017 Annual Meeting of stockholders. Each of Ms. George, Mr. McCourt, and Drs. Golumbeski and Nader has been nominated for and has agreed to stand for re-election to the Board of Directors to serve as a Class I director of the Company for three years and until their successors are duly elected and qualified or until their earlier death, resignation or removal.

Our bylaws provide for a majority voting standard for the election of directors in uncontested elections, which provides that to be elected, a director nominee must receive a greater number of votes FOR his or her election than votes to WITHHOLD from such election. The number of votes cast with respect to that director's election excludes abstentions and broker non-votes with respect to that director's election. In contested elections where the number of director nominees exceeds the number of directors to be elected, the voting standard will be a plurality of the shares present in person or by proxy and entitled to vote.

It is intended that, unless you give contrary instructions, shares represented by proxies will be voted for the election of the four nominees listed above as director nominees. Acceleron has no reason to believe that any nominee will be unable to serve. In the event that one or more nominees is unexpectedly not available to serve, proxies may be voted for another person nominated as a substitute by the Board of Directors, or the Board of Directors may reduce the number of directors to be elected at the Annual Meeting. Information relating to each nominee for election as director and for each continuing director, including his or her period of service as a director of Acceleron, principal occupation and other biographical material is shown earlier in this proxy statement.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" EACH OF THESE NOMINEES FOR CLASS I DIRECTOR, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN FAVOR THEREOF UNLESS A STOCKHOLDER HAS INDICATED OTHERWISE ON THE PROXY.

(PROPOSAL 1 ON YOUR PROXY CARD)

PROPOSAL NO. 2—ADVISORY VOTE ON EXECUTIVE COMPENSATION

We are seeking your advisory vote as required by Section 14A of the Securities Exchange Act of 1934, as amended, on the approval of the compensation of our named executive officers as described in the Compensation Discussion and Analysis, the compensation tables and related material contained in this proxy statement. Because your vote is advisory, it will not be binding on our Compensation Committee or our Board of Directors. However, the Compensation Committee and the Board will review the voting results and take them into consideration when making future decisions regarding executive compensation.

Our compensation philosophy is designed to align each executive's compensation with our short-term and long-term performance and to provide the compensation and incentives needed to attract, motivate and retain key executives who are critical to our long-term success. Consistent with this philosophy, a significant portion of the total compensation opportunity for each of our executives is directly related to performance factors that measure our progress against the goals of our strategic and operating plans, as well as our performance against that of our peer companies.

Stockholders are urged to read the Compensation Discussion and Analysis section of this proxy statement, which discusses how our compensation policies and procedures implement our compensation philosophy. The Compensation Committee and the Board of Directors believe that these policies and procedures are effective in implementing our compensation philosophy and in achieving our goals.

For the reasons discussed above, the Board of Directors unanimously recommends that stockholders vote in favor of the following resolution:

“RESOLVED, that the compensation paid to the named executive officers of Acceleron Pharma Inc., as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the compensation tables and the related material disclosed in this proxy statement, is hereby APPROVED.”

Although the say-on-pay vote we are asking you to cast is non-binding, the Board of Directors and Compensation Committee value the views of our stockholders and will consider the outcome of the vote when determining future compensation arrangements for our named executive officers. The affirmative vote of a majority of the shares cast affirmatively or negatively for this proposal is required to approve, on an advisory basis, the compensation of our named executive officers as described in this proxy statement. This vote is non-binding, and we currently hold our say-on-pay vote every year.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" APPROVAL, ON AN ADVISORY BASIS, OF THE COMPENSATION PAID TO OUR NAMED EXECUTIVE OFFICERS, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN FAVOR OF SUCH APPROVAL UNLESS A STOCKHOLDER INDICATES OTHERWISE ON THE PROXY.

(PROPOSAL 2 ON YOUR PROXY CARD)

**PROPOSAL NO. 3—RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED
PUBLIC ACCOUNTING FIRM**

We are asking our stockholders to ratify the Audit Committee's selection of Ernst & Young LLP, or Ernst & Young, as our independent registered public accounting firm for the fiscal year ending December 31, 2017. Ernst & Young has served as our independent registered public accounting firm since 2006.

The Audit Committee annually reviews the independent registered public accounting firm's independence, including reviewing all relationships between the independent registered public accounting firm and us and any disclosed relationships or services that may impact the objectivity and independence of the independent registered public accounting firm, and the independent registered public accounting firm's performance. Although ratification is not required by our bylaws or otherwise, the Board of Directors is submitting the selection of Ernst & Young to our stockholders for ratification as a matter of good corporate practice. If the selection is not ratified, the Audit Committee will consider whether it is appropriate to select another independent registered public accounting firm. Even if the selection is ratified, the Audit Committee in its discretion may select a different registered public accounting firm at any time during the year if the committee determines that such a change would be in the best interests of the Company and our stockholders.

We expect that a representative of Ernst & Young will attend the Annual Meeting and the representative will have an opportunity to make a statement if he or she so chooses. The representative will also be available to respond to appropriate questions from stockholders.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

The Audit Committee pre-approves all auditing services, internal control related services and permitted non-audit services (including the fees and terms thereof) to be performed by Ernst & Young, subject to the de minimis exception for non-audit services that are approved by the Audit Committee prior to the completion of an audit. The Audit Committee may delegate pre-approval authority to one or more members of the Audit Committee consistent with applicable law and listing standards, provided that the decisions of such Audit Committee member or members must be presented to the full Audit Committee at its next scheduled meeting.

Principal Accountant Fees and Services

We regularly review the services and fees of our independent registered public accounting firm. These services and fees are also reviewed by the Audit Committee on an annual basis. The aggregate fees billed for the fiscal years ended December 31, 2015 and 2016 for each of the following categories of services are as follows (in thousands):

Fee Category	2015		2016	
Audit Fees	\$	733	\$	735
Audit-Related Fees	\$	—	\$	—
Tax Fees	\$	51	\$	21
All Other Fees	\$	—	\$	2
Total Fees	\$	784	\$	758

Audit Fees. Consist of aggregate fees for professional services provided in connection with the annual audit of our consolidated financial statements and the effectiveness of our internal control over financial reporting, the review of our quarterly condensed consolidated financial statements, consultations on accounting matters directly related to the audit, and comfort letters, consents and assistance with and review of documents filed with the SEC.

Audit-Related Fees. Consist of aggregate fees for accounting consultations and other services that were reasonably related to the performance of audits or reviews of our consolidated financial statements and were not reported above under "Audit Fees."

Tax Fees. Consist of aggregate fees for tax compliance, tax advice and tax planning services including the review and preparation of our federal and state income tax returns.

All Other Fees. Consist of aggregate fees billed for products and services provided by the independent registered public accounting firm other than those disclosed above.

The Audit Committee pre-approved all services performed since the pre-approval policy was adopted.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" THE RATIFICATION OF THE SELECTION OF ERNST & YOUNG LLP AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN FAVOR OF SUCH RATIFICATION UNLESS A STOCKHOLDER HAS INDICATED OTHERWISE ON THE PROXY.

(PROPOSAL 3 ON YOUR PROXY CARD)

GENERAL MATTERS

Code of Business Conduct and Ethics and Corporate Governance Guidelines

We have adopted a Code of Business Conduct and Ethics for our directors, officers and employees, including our Chief Executive Officer and President and our Chief Financial Officer. A copy of our Code of Business Conduct and Ethics may be accessed free of charge by visiting our website at www.acceleronpharma.com and going to the "Corporate Governance" tab under the "Investors/Media" section, or by requesting a copy in writing from our Secretary at our Cambridge, Massachusetts office. We intend to post on our website any amendment to, or waiver under, a provision of the Code of Business Conduct and Ethics that applies to our directors and certain of our executive officers within four business days following the date of such amendment or waiver.

A copy of the Corporate Governance Guidelines may also be accessed free of charge by visiting the website at www.acceleronpharma.com and going to the "Corporate Governance" tab under the "Investors/Media" section, or by requesting a copy in writing from our Secretary at our Cambridge, Massachusetts office.

Availability of Certain Documents

A copy of our 2016 Annual Report on Form 10-K has been posted on the Internet along with this proxy statement. Upon written request, we will mail, without charge, a copy of our 2016 Annual Report on Form 10-K excluding exhibits. Please send a written request to our Corporate Secretary at:

Acceleron Pharma Inc.
128 Sidney Street
Cambridge, MA 02139
Attention: Secretary
Phone: (617) 649-9200

SEC rules concerning the delivery of annual disclosure documents allow us or your broker to send a single Notice or, if applicable, a single set of our proxy materials to any household at which two or more of our stockholders reside, if we or your broker believe that the stockholders are members of the same family, unless we have received contrary instructions from one or more of the stockholders. This practice, referred to as "householding," benefits both you and us. It reduces the volume of duplicate information received at your household and helps to reduce our expenses. The rule applies to our Notices, annual reports, proxy statements and information statements.

We will undertake to deliver promptly, upon written or oral request, a separate copy to a stockholder at a shared address to which a single copy of the Notice or proxy materials was delivered. You may make a written or oral request by sending a notification to our Secretary at the address or telephone number above, providing your name, your shared address, and the address to which we should direct the additional copy of the Notice or proxy materials. Multiple stockholders sharing an address who have received one copy of a mailing and would prefer us to mail each stockholder a separate copy of future mailings should contact us at our principal executive offices. Additionally, if current stockholders with a shared address received multiple copies of a mailing and would prefer us to mail one copy of future mailings to stockholders at the shared address, notification of that request may also be made through our principal executive offices. Stockholders who participate in householding will continue to have access to and utilize separate proxy voting instructions.

Stockholder Proposals and Nominations

Requirements for Stockholder Proposals to be Considered for Inclusion in our Proxy Materials. To be considered for inclusion in next year's proxy statement, stockholder proposals must be received by our Secretary at our principal executive offices no later than the close of business on December 14, 2017, which is 120 days prior to the date that is one year from this year's mailing date of April 13, 2017.

Requirements for Stockholder Proposals or Director Nominations to be Brought Before an Annual Meeting. Our bylaws provide that, for stockholder nominations to the Board of Directors or other proposals to be considered at an annual meeting, the stockholder must have given timely notice thereof in writing to the Secretary at Acceleron Pharma Inc., 128 Sidney Street, Cambridge, MA 02139. The nominating and corporate governance committee does not have a written policy regarding stockholder nominations, but has determined that it is the practice of the committee to consider candidates proposed by stockholders if made in accordance with our bylaws. To be timely for the 2018 annual meeting, although not included in the proxy statement, the stockholder's notice must be delivered to or mailed and received by us not earlier than the close of business on the 120th day nor later than the close of business on the 90th day prior to the anniversary date of the prior year's annual meeting, except that if the annual meeting is set for a date that is not within 30 days before or after such anniversary date, we must receive the notice not later than the close of business on the tenth day following the day on which we first

provide notice or public disclosure of the date of the meeting. Assuming the date of our 2017 annual meeting is not so advanced or delayed, stockholders who wish to make a proposal at the 2017 annual meeting must notify us no earlier than February 1, 2018 and no later than March 3, 2018. Such notice must provide the information required by our bylaws with respect to each matter the stockholder proposes to bring before the 2018 annual meeting.

Contacting the Board of Directors

Stockholders wishing to communicate with the Board of Directors may do so by writing to the Board or to the non-employee members of the Board as a group, at:

Acceleron Pharma Inc.
128 Sidney Street
Cambridge, MA 02139
Attention: Secretary

The communication must prominently display the legend "BOARD COMMUNICATION" in order to indicate to the Secretary that it is a communication for the Board. Upon receiving such a communication, the Secretary will promptly forward the communication to the relevant individual or group to which it is addressed. Certain items that are unrelated to the Board's duties and responsibilities may be excluded, such as spam, junk mail and mass mailings, resumes and other forms of job inquiries, surveys and business solicitations or advertisements. The Secretary will not forward any communication determined in his good faith belief to be frivolous, unduly hostile, threatening, illegal or similarly unsuitable.

Other Matters

As of the date of this proxy statement, the Board of Directors does not intend to present any matters other than those described herein at the Annual Meeting and is unaware of any matters to be presented by other parties. If other matters are properly brought before the meeting for action by the stockholders, proxies will be voted in accordance with the recommendation of the Board or, in the absence of such a recommendation, in accordance with the judgment of the proxy holder.

Directions to Annual Meeting

Directions to the 2017 Annual Meeting of Stockholders, to be held at Ropes & Gray LLP, Prudential Tower, 800 Boylston Street, Boston, MA 02199 are set forth below:

From North of Boston: From Route 93 take exit 26, Leverett Connector/Storrow Drive, and follow to the Copley Square exit on the left. Take a right onto Beacon Street and follow to Exeter Street. Take a left onto Exeter Street and follow 11 blocks. Take a right on Huntington Avenue. The Prudential Center Garage will be on the right.

From West of Boston: Follow the Mass Pike eastbound into Boston (the Mass Pike is accessible from Route 128/I-95). Get off at exit 22, Copley Square/Prudential Center. Follow signs for Prudential Center. This will take you directly to the Prudential Center Garage entrance, which will be on your right.

From South of Boston: From Route 93 take exit 18, Massachusetts Avenue. Follow sign to Massachusetts Avenue and turn right. Follow Massachusetts Avenue for about 2 miles to Huntington Avenue. Take a right on Huntington Avenue. Take a left on Belvidere Street. The Prudential Center garage entrance will be on your right before Sovereign Bank.

From Logan Airport: Access Boston via the Sumner Tunnel and exit onto Route 93 North. Take exit 26, Leverett Connector/Storrow Drive, and follow to the Copley Square exit on the left. Take a right onto Beacon Street and follow to Exeter Street. Take a left onto Exeter Street and follow 11 blocks. Take a right on Huntington Avenue. The Prudential Center Garage will be on the right.

Parking: The Prudential Tower is best accessed via the South Garage, which has two entrances on Huntington Avenue, one on Dalton Street and one on Belvedere Street. The Red and Yellow levels are both part of the South Garage. Attendant parking is available on both levels at no additional charge.

By Order of the Board of Directors

A handwritten signature in black ink, appearing to read 'Habib J. Dable', written in a cursive style.

Habib J. Dable
Chief Executive Officer, President and Director
April 13, 2017



ACCELERON PHARMA INC.
128 SIDNEY STREET
CAMBRIDGE, MA 02139

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

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

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

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

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

E26625-P91611

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

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

ACCELERON PHARMA INC. The Board of Directors recommends you vote FOR the following:		For All <input type="checkbox"/>	Withhold All <input type="checkbox"/>	For All Except <input type="checkbox"/>	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.
1. Election of Directors Nominees: 01) Jean M. George 02) George Golumbeski, Ph.D. 03) Thomas A. McCourt 04) Francois Nader, M.D.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
The Board of Directors recommends you vote FOR the following proposals:					For Against Abstain
2. To approve, on an advisory basis, the compensation paid to the Company's named executive officers as disclosed in the proxy statement.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. To ratify the selection of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2017.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: Such other business as may properly come before the meeting or any adjournment thereof.					
For address changes and/or comments, please check this box and write them on the back where indicated.		<input type="checkbox"/>			
Please indicate if you plan to attend this meeting.		<input type="checkbox"/> <input type="checkbox"/> Yes No			
Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.					
<input style="width: 95%; height: 20px;" type="text"/> Signature [PLEASE SIGN WITHIN BOX]	<input style="width: 90%; height: 20px;" type="text"/> Date	<input style="width: 95%; height: 20px;" type="text"/> Signature (Joint Owners)		<input style="width: 90%; height: 20px;" type="text"/> Date	

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

E26626-P91611

**ACCELERON PHARMA INC.
Annual Meeting of Stockholders
Thursday, June 1, 2017 8:30 a.m. Eastern Time
This proxy is solicited by the Board of Directors**

John Quisel and Kevin McLaughlin, or either of them, each with the power of substitution, are hereby authorized to represent and vote the shares of the undersigned, with all the powers which the undersigned would possess if personally present, at the Annual Meeting of Stockholders of Acceleron Pharma Inc. to be held on Thursday, June 1, 2017 at 8:30 a.m. Eastern Time or at any postponement or adjournment thereof. Shares represented by this proxy will be voted by the stockholder in accordance with the specifications indicated on this proxy.

If no such distinctions are indicated, the Proxies will have the authority to vote FOR the election of all nominees for director and FOR Proposals 2 and 3. In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

Address Changes/Comments: _____

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

Continued and to be signed on reverse side

V1.1