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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**SCHEDULE 14A INFORMATION**

**Proxy Statement Pursuant to Section 14(a) of  
the Securities Exchange Act of 1934  
(Amendment No. )**

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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

**Zafgen, Inc.**

(Name of Registrant as Specified In Its Charter)

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

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(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11  
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(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed:



**Zafgen, Inc.**  
**175 Portland Street, 4th Floor**  
**Boston, MA 02114**

**NOTICE OF 2018 ANNUAL MEETING OF STOCKHOLDERS**

Notice is hereby given that the 2018 Annual Meeting of Stockholders of Zafgen, Inc. will be held on June 6, 2018, at 8:30 a.m. Eastern Time, at the offices of Goodwin Procter at 100 Northern Avenue, Boston, Massachusetts 02210. The purpose of the meeting is the following:

1. to elect three directors, Thomas O. Daniel, M.D., Cameron Geoffrey McDonough, M.D., and Robert J. Perez to serve as Class I directors until the 2021 annual meeting of stockholders and until their successors are duly elected and qualified, subject to their earlier death, resignation, or removal;
2. to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018; and
3. to transact such other business as may properly come before the meeting or at any and all adjournments or postponements thereof.

The proposal for the election of directors relates solely to the election of Class I directors nominated by the Board of Directors.

Only Zafgen, Inc. stockholders of record at the close of business on April 11, 2018, will be entitled to vote at the meeting and any adjournment or postponement thereof.

We are pleased to take advantage of Securities and Exchange Commission rules that allow companies to furnish their proxy materials over the Internet. We are mailing to many of our stockholders a Notice of Internet Availability of Proxy Materials, or Notice, instead of a paper copy of our proxy materials and our 2017 Annual Report on Form 10-K. The Notice contains instructions on how to access those documents and to cast your vote via the Internet. The Notice also contains instructions on how to request a paper copy of our proxy materials and our 2017 Annual Report on Form 10-K. All stockholders who do not receive a Notice will receive a paper copy of the proxy materials and our 2017 Annual Report on Form 10-K, by mail. This process allows us to provide our stockholders with the information they need on a more timely basis, while reducing the environmental impact and lowering the costs of printing and distributing our proxy materials.

Your vote is important. Whether or not you are able to attend the meeting in person, it is important that your shares be represented. To ensure that your vote is recorded promptly, please vote as soon as possible, even if you plan to attend the meeting, by submitting your proxy via the Internet at the address listed on the proxy card or by signing, dating and returning the proxy card.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "Jeffrey S. Hatfield".

Jeffrey S. Hatfield  
*Chief Executive Officer and Director*

Boston, Massachusetts  
April 18, 2018

## **BUSINESS AND COMPENSATION UPDATES**

To assist you in reviewing the proposals to be acted upon, we call your attention to the following business and compensation highlights since the beginning of 2017. The following description is only a summary. For more complete information on these topics, please review our Annual Report on Form 10-K for the year ended December 31, 2017 (including the Risk Factors therein), and this Proxy Statement in full.

### **Business Highlights**

Zafgen made significant progress over the past year and has created forward momentum by solving challenges and advancing multiple novel development candidates with highly optimized profiles that we believe can unlock the full value of MetAP2 inhibition for patients in a variety of metabolic diseases.

Our progress over the past year began with the successful completion of initial safety studies with ZGN-1061 in May 2017. ZGN-1061 is being advanced for the treatment of difficult-to-control type 2 diabetes. In the Phase 1b multiple ascending dose trial with obese healthy volunteers, ZGN-1061 demonstrated a clear signal of efficacy with weight loss, and a favorable safety and tolerability profile generally undifferentiated vs. placebo. Importantly, ZGN-1061 showed no effect on an important known biomarker of safety previously identified.

Based on these positive data and continuing supportive nonclinical data, ZGN-1061 was advanced into Phase 2 clinical development. In September 2017, we initiated a Phase 2 clinical trial for ZGN-1061 in patients with complex type 2 diabetes. Patients in this trial have uncontrolled A1C levels – the primary measurement for assessing glycemic control for type 2 diabetes patients. Though uncontrolled, the majority of patients enrolled in this clinical trial are already on multiple other anti-diabetic medications. The primary objectives of this ongoing clinical trial are to assess the efficacy, safety and tolerability of ZGN-1061 in these patients.

Also in 2017, we appointed Jeffrey Hatfield as our Chief Executive Officer, or CEO. Thomas Hughes, Ph.D., continues to serve as our President and has assumed the newly-created role of Chief Scientific Officer. Both Mr. Hatfield and Dr. Hughes serve on Zafgen's Board of Directors. Mr. Hatfield is a veteran biotechnology and pharmaceutical industry leader, with over three decades of experience. Most recently, he served as Chief Executive Officer of Vitae Pharmaceuticals, Inc. from the company's formation until its unsolicited acquisition by Allergan plc in October 2016.

Finally, in December 2017, we completed a \$20.0 million venture debt financing with Silicon Valley Bank, increasing our cash, cash equivalents and marketable securities balance to \$102.1 million as of December 31, 2017.

As we entered 2018, we were pleased to announce that the Company is returning to the rare metabolic disease space. ZGN-1258, a second highly optimized MetAP2 inhibitor, was selected as a development candidate for treating rare metabolic diseases, targeting an initial indication in Prader-Willi syndrome (PWS). In March, we followed the candidate selection announcement with initiation of formal investigational new drug (IND) enabling studies with ZGN-1258. In preclinical studies, ZGN-1258 demonstrated an efficacy profile nearly identical to the Company's first-generation inhibitor, but with a highly differentiated safety profile that provides a 100-fold safety margin compared to the prior compound's one known liability.

Throughout the past two years, Zafgen has undertaken extensive efforts to further characterize the MetAP2 pathway and its effects in various systems, and to optimize the profile of its development candidates to reflect this increased understanding. Each of Zafgen's current development candidates has been designed to preferentially distribute to specific target tissue systems relating directly to the indication being pursued, while reducing significantly the exposure to other tissue systems reached by its first MetAP2 inhibitor. As a result, we expect current development candidates to have a substantial safety advantage over our first MetAP2 inhibitor.

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In March 2018, we conducted an interim analysis of the ongoing 12 week Phase 2 proof-of-concept ZAF-1061-201 clinical trial of ZGN-1061 in type 2 diabetes, to gather data for potential medical conference abstract submissions later in 2018. At that time, 57 patients had completed at least 8 weeks of treatment with various doses of ZGN-1061. Interim results were favorable:

- Interim data suggest that ZGN-1061 is safe and well-tolerated in the trial, with no safety signals observed or reported, and side effects generally comparable to placebo.
- Interim analysis of efficacy data indicates that the 0.9 mg dose cohort produced a statistically significant placebo adjusted change in A1C at 8 weeks of -0.57%,  $p < 0.05$ . MetAP2 inhibition has historically produced a consistent A1C lowering effect that builds in magnitude continuously through at least 26 weeks. These efficacy results, at a mid-range dose of ZGN-1061 and at only 8 weeks, are in line with our expectations, and exceed our expectations for statistical significance at this point in the clinical trial.
- Based on the confidence instilled by the safety and tolerability results of this interim analysis, Zafgen has opted to explore the higher end of the therapeutic range of ZGN-1061 by adding a 1.8 mg dose arm to the clinical trial. This arm will run nearly in parallel with completion of long-term toxicology studies for ZGN-1061. We remain on track to announce full 12-week topline data from the core part of this proof-of-concept clinical trial in mid-year 2018. Results of the additional 1.8 mg arm are expected in early 2019.

### **Compensation Highlights**

We believe our compensation program has been effective to attract a seasoned CEO, Jeffrey Hatfield, in October 2017, and retaining and motivating the executive team and staff during a time where we continued to rebuild the company. The Compensation Committee of our Board of Directors, or the Compensation Committee, in consultation with our CEO, made the following decisions with respect to our compensation program for our executive officers.

- **Cash bonuses to executives under the annual performance-based cash bonus program.** In February 2018, the Compensation Committee awarded our executive officers a cash bonus for 2017 based on the achievement of corporate goals in 2017.
- **Equity grants to executives and our staff continue to be an important part of compensation.** In February 2018, the Compensation Committee awarded our executive officers and staff stock option grants that considered the need to retain executive officers and staff when determining the amounts of the annual stock option grants. The Compensation Committee also considered the competitive hiring market for our industry. The Compensation Committee believes that granting stock options at this critical time in the Company's development aligns executive officer's incentives with our corporate strategy, business objectives and the long-term interest of our stockholders.

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**ZAFGEN, INC.  
PROXY STATEMENT  
FOR THE 2018 ANNUAL MEETING OF STOCKHOLDERS**

**GENERAL INFORMATION**

Our Board of Directors, or the Board of Directors, has made this Proxy Statement, or this Proxy Statement, and related materials available to you on the Internet, or at your request has delivered printed versions to you by mail, in connection with the Board of Directors' solicitation of proxies for our 2018 Annual Meeting of Stockholders, or the Annual Meeting, and any adjournments or postponements of the Annual Meeting. If you requested printed versions of these materials by mail, they will also include a proxy card for the Annual Meeting.

Pursuant to rules adopted by the Securities and Exchange Commission, or SEC, we are providing access to our proxy materials over the Internet. Accordingly, we are sending a Notice of Internet Availability of Proxy Materials, or the Notice, to our stockholders of record and beneficial owners as of the record date identified below. The mailing of the Notice to our stockholders is scheduled to begin on or around April 20, 2018.

**IMPORTANT NOTICE REGARDING THE INTERNET AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON June 6, 2018: *This Proxy Statement, the accompanying proxy card or voting instruction card and our 2017 Annual Report on Form 10-K are available at <http://www.proxyvote.com>.***

In this Proxy Statement, the terms "Zafgen," "we," "us," and "our" refer to Zafgen, Inc. The mailing address of our principal executive offices is Zafgen, Inc., 175 Portland Street, 4th Floor, Boston, MA 02114.

**EXPLANATORY NOTE**

We are an "emerging growth company" under applicable federal securities laws and therefore permitted to take advantage of certain reduced public company reporting requirements. As an emerging growth company, we provide in this Proxy Statement the scaled disclosure permitted under the Jumpstart Our Business Startups Act of 2012, or the "JOBS Act," including the compensation disclosures required of a "smaller reporting company," as that term is defined in Rule 12b-2 promulgated under the Securities Exchange Act of 1934, as amended, or the Exchange Act. In addition, as an emerging growth company, we are not required to conduct votes seeking approval, on an advisory basis, of the compensation of our named executive officers or the frequency with which such votes must be conducted. We will remain an "emerging growth company" until the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (ii) December 31, 2019; (iii) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

**Stockholders Entitled to Vote; Record Date**

As of the close of business on April 11, 2018, the record date for determination of stockholders entitled to vote at the Annual Meeting, there were outstanding 27,563,346 shares of our common stock, par value \$0.001 per share, or common stock, all of which are entitled to vote with respect to all matters to be acted upon at the Annual Meeting. Each stockholder of record is entitled to one vote for each share of our common stock held by such stockholder. No shares of our preferred stock were outstanding as of the record date.

**Quorum; Abstentions; Broker Non-Votes**

Our By-laws provide that a majority of the shares entitled to vote, present in person or represented by proxy, will constitute a quorum for the transaction of business at the Annual Meeting. Under the General Corporation Law of the State of Delaware, shares that are voted "abstain" or "withheld" and broker "non-votes" are counted as present for purposes of determining whether a quorum is present at the Annual Meeting.

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Under our By-laws, any proposal other than an election of directors is decided by a majority of the votes properly cast for and against such proposal, except where a larger vote is required by law or by our Certificate of Incorporation or By-laws. Abstentions and broker “non-votes” are not included in the tabulation of the voting results on any such proposal and, therefore, do not have the effect of votes in opposition to such proposals. A broker “non-vote” occurs when a nominee holding shares for a beneficial owner does not vote on a particular proposal because the nominee does not have discretionary voting power with respect to that item and has not received instructions from the beneficial owner.

If your shares are held in “street name” by a brokerage firm, your brokerage firm is required to vote your shares according to your instructions. If you do not give instructions to your brokerage firm, the brokerage firm will still be able to vote your shares with respect to certain “discretionary” items, but will not be allowed to vote your shares with respect to “non-discretionary” items. Proposal 1 is a “non-discretionary” item. If you do not instruct your broker how to vote with respect to that proposal, your broker may not vote for that proposal, and those votes will be counted as broker “non-votes.” Proposal 2 is considered to be a discretionary item, and your brokerage firm will be able to vote on this proposal even if it does not receive instructions from you.

### **Voting**

#### ***In Person***

If you are a stockholder of record, you may vote in person at the meeting. We will give you a ballot when you arrive. If you hold your shares through a bank or broker and wish to vote in person at the meeting, you must obtain a valid proxy from the firm that holds your shares.

#### ***By Proxy***

If you do not wish to vote in person or will not be attending the meeting, you may vote by proxy. You can vote by proxy over the Internet by following the instructions provided in the Notice, or, if you requested printed copies of the proxy materials by mail, you can vote by mailing your proxy as described in the proxy materials. You may also authorize another person or persons to act for you as proxy in a writing, signed by you or your authorized representative, specifying the details of those proxies’ authority. The original writing must be given to each of the named proxies, although it may be sent to them by electronic transmission if, from that transmission, it can be determined that the transmission was authorized by you. If you complete and submit your proxy before the Annual Meeting, the persons named as proxies will vote the shares represented by your proxy in accordance with your instructions. If you submit a proxy without giving voting instructions, your shares will be voted in the manner recommended by the Board of Directors on all matters presented in this Proxy Statement, and as the persons named as proxies may determine in their discretion with respect to any other matters properly presented at the Annual Meeting.

If any other matters are properly presented for consideration at the Annual Meeting, including, among other things, consideration of a motion to adjourn the Annual Meeting to another time or place (including, without limitation, for the purpose of soliciting additional proxies), the persons named in the enclosed proxy card and acting thereunder will have discretion to vote on those matters in accordance with their best judgment. We do not currently anticipate that any other matters will be raised at the Annual Meeting.

### **Revocability of Proxy**

You may revoke your proxy by (1) following the instructions on the Notice and entering a new vote by mail or over the Internet before the Annual Meeting or (2) attending the Annual Meeting and voting in person (although attendance at the Annual Meeting will not in and of itself revoke a proxy). Any written notice of revocation or subsequent proxy card must be received by our Secretary prior to the taking of the vote at the Annual Meeting. Such written notice of revocation or subsequent proxy card should be hand delivered to our

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Secretary or sent to our principal executive offices at Zafgen, Inc., 175 Portland Street, 4th Floor, Boston, MA 02114, Attention: Secretary. If a broker, bank, or other nominee holds your shares, you must contact such broker, bank, or nominee in order to find out how to change your vote.

### **Expenses of Solicitation**

Zafgen is making this solicitation and will pay the entire cost of preparing and distributing the Notice and these proxy materials and soliciting votes. If you choose to access the proxy materials or vote over the Internet, you are responsible for any Internet access charges that you may incur. Our officers and employees may, without compensation other than their regular compensation, solicit proxies through further mailings, personal conversations, facsimile transmissions, e-mails, or otherwise. We have hired Broadridge Financial Solutions, Inc. to assist us in preparing, mailing, returning, and tabulating the proxies. We have also hired Laurel Hill for the solicitation of votes described above for a fee of \$7,800 plus reimbursement of reasonable out-of-pocket expenses.

### **Procedure for Submitting Stockholder Proposals**

Stockholder proposals intended to be presented at the next annual meeting of our stockholders must satisfy the requirements set forth in the advance notice provision under our By-laws. To be timely for our next annual meeting of stockholders, any such proposal must be delivered in writing to our Secretary at 175 Portland Street, 4th Floor Boston, MA 02114 between the close of business on February 6, 2019, and March 8, 2019. If the date of the next annual meeting of the stockholders is scheduled to take place before May 7, 2019, or after August 5, 2019, notice by the stockholder must be delivered no later than the close of business on the later of (1) the 90th day prior to such annual meeting or (2) the 10th day following the day on which public announcement of the date of such meeting is first made.

Any nomination must include all information relating to the nominee that is required to be disclosed in solicitations of proxies for election of directors in election contests or is otherwise required under Regulation 14A of the Exchange Act, the person's written consent to be named in the Proxy Statement and to serve as a director if elected and such information as we might reasonably require to determine the eligibility of the person to serve as a director. As to other business, the notice must include a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, and any material interest of such stockholder (and the beneficial owner) in the proposal. The proposal must be a proper subject for stockholder action. In addition, to make a nomination or proposal, the stockholder must be of record at the time the notice is made and must provide certain information regarding itself (and the beneficial owner), including the name and address, as they appear on our books, of the stockholder proposing such business, the number of shares of our capital stock which are, directly or indirectly, owned beneficially or of record by the stockholder proposing such business or its affiliates or associates (as defined in Rule 12b-2 promulgated under the Exchange Act) and certain additional information.

In addition, any stockholder proposal intended to be included in the Proxy Statement for the next annual meeting of our stockholders must also satisfy the SEC regulations under Rule 14a-8 of the Exchange Act, and be received not later than December 21, 2018. If the date of the annual meeting is moved by more than 30 days from the date contemplated at the time of the previous year's Proxy Statement, then notice must be received within a reasonable time before we begin to print and send proxy materials. If that happens, we will publicly announce the deadline for submitting a proposal in a press release or in a document filed with the SEC.

## OVERVIEW OF PROPOSALS

This Proxy Statement contains two proposals requiring stockholder action. Proposal 1 requests the election of three Class I directors to the Board of Directors. Proposal 2 requests the ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018. Each of the proposals is discussed in more detail in the pages that follow.

### PROPOSAL 1

#### ELECTION OF DIRECTORS

The Board of Directors is divided into three classes. One class is elected each year at the annual meeting of stockholders for a term of three years. Vacancies on the Board of Directors are filled exclusively by the affirmative vote of a majority of the remaining directors, even if less than a quorum is present, and not by stockholders. A director elected by the Board of Directors to fill a vacancy in a class shall hold office for the remainder of the full term of that class, and until the director's successor is duly elected and qualified or until his or her earlier resignation, death, or removal.

The terms of the Class I directors are scheduled to expire on the date of the upcoming Annual Meeting. Based on the recommendation of the Nominating and Corporate Governance Committee of the Board of Directors, or Nominating and Corporate Governance Committee, the Board of Directors' nominees for election by the stockholders are the current Class I members: Thomas O. Daniel, M.D., Cameron Geoffrey McDonough, M.D., and Robert J. Perez. If elected, each nominee will serve as a director until the annual meeting of stockholders in 2021 and until his successor is duly elected and qualified, or until his earlier death, resignation, or removal.

The names of and certain information about the directors in each of the three classes are set forth below. There are no family relationships among any of our directors or executive officers.

It is intended that the proxy in the form presented will be voted, unless otherwise indicated, for the election of the Class I director nominees to the Board of Directors. If any of the nominees should for any reason be unable or unwilling to serve at any time prior to the Annual Meeting, the proxies will be voted for the election of such substitute nominee as the Board of Directors may designate.

#### Nominees for Class I Directors

The names of the nominees for Class I directors and certain information about each as of April 2, 2018 are set forth below.

<u>Name</u>	<u>Positions and Offices Held with Zafgen</u>	<u>Director Since</u>	<u>Age</u>
Thomas O. Daniel, M.D.	Director	2016	64
Cameron Geoffrey McDonough, M.D.	Director	2015	47
Robert J. Perez	Director	2015	53

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**Directors Not Standing for Election or Re-Election**

The names of and certain information as of April 2, 2018 about the members of the Board of Directors who are not standing for election or re-election at this year's Annual Meeting are set forth below.

<u>Name</u>	<u>Positions and Offices Held with Zafgen</u>	<u>Director Since</u>	<u>Class and Year in Which Term Will Expire</u>	<u>Age</u>
Peter Barrett, Ph.D.	Chairman of the Board	2006	Class II—2019	65
Bruce Booth, Ph.D.	Director	2006	Class II—2019	43
Frances K. Heller	Director	2014	Class II—2019	51
Jeffrey S. Hatfield	Chief Executive Officer and Director	2017	Class III—2020	60
Thomas E. Hughes, Ph.D.	President, Chief Scientific Officer and Director	2008	Class III—2020	58
John L. LaMattina, Ph.D.	Director	2013	Class III—2020	68
Frank E. Thomas	Director	2014	Class III—2020	48

Set forth below are the biographies of each director, as well as a discussion of the particular experience, qualifications, attributes, and skills that led our Board of Directors to conclude that each person nominated to serve or currently serving on our Board of Directors should serve as a director. In addition to the information presented below, we believe that each director meets the minimum qualifications established by the Nominating and Corporate Governance Committee.

*Thomas O. Daniel, M.D.* Dr. Daniel has served as a member of our Board of Directors since March 2016. Dr. Daniel has more than 16 years of experience in biopharmaceutical discovery and development. He is currently Chairman of Vividion Therapeutics, Inc., is a venture partner at ARCH Venture Partners, and serves as a director of ImmusanT, Inc., Gossamer Bio, Inc., Magenta Therapeutics, Inc., and VIR Biotechnology, Inc. Previously, he was Chairman of Research at Celgene Corporation, and served as President of Research and Early Development from December 2006 until February 2012, and as Executive Vice President and President of Research and Early Development until December 2015. Prior to Celgene, he served as Chief Scientific Officer and Director at Ambrx Inc., from August 2003 to November 2006. Dr. Daniel also served as Vice President of Research at Amgen from August 2002 to April 2003, where he was Research Site Head of Amgen Washington and Therapeutic Area Head of Inflammation. Prior to Amgen's acquisition of Immunex Corporation, Dr. Daniel served as Senior Vice President of Discovery Research at Immunex from May 2000 to August 2002. Dr. Daniel has been a member of the Therapeutic Advisory Board of aTyr Pharma, Inc. since March 2011, and advises BlackThorn Therapeutics, Inc. a privately-held biotechnology company. Dr. Daniel serves as a member of the Biomedical Science Advisory Board of Vanderbilt University Medical Center. A nephrologist and former academic investigator, Dr. Daniel was previously the C.M. Hakim Professor of Medicine and Cell Biology at Vanderbilt University, and Director of the Vanderbilt Center for Vascular Biology. He formerly conducted research in the Howard Hughes Medical Institute at UC San Francisco, earned an M.D. from the University of Texas, Southwestern, and completed medical residency at Massachusetts General Hospital. Dr. Daniel's qualifications to sit on our Board of Directors include his biotechnology and pharmaceutical experience, including senior leadership roles at global biopharmaceutical companies Celgene Corporation and Amgen.

*Cameron Geoffrey McDonough, M.D.* Dr. McDonough has served as a member of our Board of Directors since September 2015. Since November 2017, Dr. McDonough has served as the Chief Executive Officer and member of the Board of Directors of Generation Bio Corporation. From August 2011 to November 2017, he served as President and Chief Executive Officer of Swedish Orphan Biovitrum AB, or Sobi, a Swedish pharmaceutical company. Prior to joining Sobi, Dr. McDonough held several senior leadership positions at Genzyme Corporation, a biotechnology company, from 2002 to June 2011, including Senior Vice President and General Manager, Personalized Genetic Health, Senior Vice President, Lysosomal Storage Disease Therapeutics and most recently, as President of Europe, Middle East and Africa. Prior to joining Genzyme, Dr. McDonough was a practicing internist and pediatrician. He previously served on the board of directors of PTC Therapeutics, Inc. Dr. McDonough received a B.A. and a B.Sc. from the University of North Carolina at Chapel Hill and an

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M.D. from Harvard Medical School. Dr. McDonough's qualifications to sit on our Board of Directors include his valuable experience as an M.D. and the CEO of a rare disease company, Sobi, as well as his prior experience at Genzyme, one of the world's largest biopharmaceutical companies, in addition to his experience on the board of directors of a publicly traded company.

*Robert J. Perez.* Mr. Perez has served as a member of our Board of Directors since September 2015. He is the founder and Managing Partner of Vineyard Sound Advisors, a biopharmaceutical advisory firm, and the Executive Chairman at Akili Interactive Labs, Inc., a private digital therapeutics company. He is the former Chief Executive Officer of Cubist Pharmaceuticals, Inc., a public pharmaceutical development company, which was acquired by Merck in January 2015. He joined Cubist in August 2003 as Senior Vice President, Sales and Marketing, and led the launch of Cubicin® (daptomycin for injection). He served as Executive Vice President and Chief Operating Officer from August 2007 to July 2012 and President and Chief Operating Officer from July 2012 to December 2014. Prior to joining Cubist, he served as Vice President of Biogen, Inc.'s CNS business unit from 2001 to 2003, where he was responsible for commercial leadership of an \$800 million neurology business unit, and from 1995 to 2001 he held positions of increasing responsibility within Biogen's CNS commercial organization. From 1987 to 1995, Mr. Perez held various sales and marketing positions at Zeneca Pharmaceuticals. Mr. Perez currently serves as a member of the board of directors of public companies Unum Therapeutics Inc., AMAG Pharmaceuticals, Inc., Cidara Therapeutics, Inc., and Spark Therapeutics, Inc., and private companies Vir Bio, and Akili Interactive Labs. Mr. Perez is the Founder and Chairman of Life Sciences Cares since January 2016, and has also been a member of the Board of Trustees at The Dana Farber Cancer Institute, Inc. since January 2013. Mr. Perez received a B.S. in business from California State University, Los Angeles and an M.B.A. from the Anderson Graduate School of Management at the University of California, Los Angeles. Mr. Perez's qualifications to sit on our Board of Directors include his valuable pharmaceutical experience, including his service at Cubist Pharmaceuticals, Inc., a commercial stage biotechnology company, in addition to his experience at Biogen, Inc., and his experience as a director in many growth companies in the biotech sector.

*Peter Barrett, Ph.D.* Dr. Barrett has served as the Chairman of our Board of Directors since August 2006. Dr. Barrett joined Atlas Venture, an early-stage venture capital fund, in 2002, and currently serves as a partner in the life sciences group. Previously, from 1998 to 2002, he was a co-founder, executive vice president and chief business officer of Celera Genomics. Prior to Celera, from 1979 to 1998, Dr. Barrett held senior management positions at Perkin-Elmer Corporation, most recently serving as vice president, corporate planning and business development. Dr. Barrett served on the boards of directors of SciClone Pharmaceuticals, Inc. from 2011 to 2013, and Helicos BioSciences Corporation from 2003 to 2012 and Vitae Pharmaceuticals, Inc. from 2014 to 2015. Dr. Barrett currently serves on the boards of directors of the Perkin-Elmer Corporation and Synlogic, Inc., and several other privately held companies. Dr. Barrett is a Senior Fellow at Harvard Business School and is the faculty chair of the key advisory board of the Blavatnik Fellowship Program. He is a member of the research council at Boston Children's Hospital. Dr. Barrett holds a B.S. in chemistry from Lowell Technological Institute (now known as the University of Massachusetts, Lowell) and a Ph.D. in analytical chemistry from Northeastern University. He also completed Harvard Business School's Management Development Program. Dr. Barrett's qualifications to sit on our Board of Directors include his extensive leadership, executive, managerial and business experience with life sciences companies, including experience in the formation, development and business strategy of multiple start-up companies in the life sciences sector.

*Bruce Booth, Ph.D.* Dr. Booth has served as a member of our Board of Directors since August 2006. Dr. Booth joined Atlas Venture in 2005, and currently serves as partner. Prior to joining Atlas Venture, from 2004 to 2005, Dr. Booth was a principal at Caxton Health Holdings L.L.C., a healthcare-focused investment firm. Prior to Caxton, from 1999 to 2004, Dr. Booth was an associate principal at McKinsey & Company, a global strategic management consulting firm. Dr. Booth serves on the board of Unum Therapeutics Inc. and miRagen Therapeutics, Inc., publicly-traded companies, and several privately-held companies. Dr. Booth earned a Ph.D. in molecular immunology from Oxford University's Nuffield Department of Medicine and a B.S. in biochemistry from Pennsylvania State University. Dr. Booth's qualifications to sit on our Board of Directors include his

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extensive leadership, executive, managerial and business experience with life sciences companies, including experience in the formation, development and business strategy of multiple start-up companies in the life sciences sector.

*Frances K. Heller.* Ms. Heller has served as a member of our Board of Directors since September 2014. Ms. Heller has nearly 20 years of experience in pharmaceutical and biotechnology business development, licensing and legal affairs. During her career, Ms. Heller has led a number of strategic transactions and partnerships across a broad range of molecular modalities and in various therapeutic areas. Ms. Heller founded Good2Go, LLC in January 2015, and currently serves as Chief Executive Officer and member of the Board of Directors. From 2012 to 2014, she was senior vice president of business development at Bristol-Myers Squibb Company and a Trustee of the Bristol Myers Foundation. In addition, she currently serves as a Trustee of the Dana Farber Cancer Institute. Prior to joining Bristol-Meyers Squibb, from 2008 to 2011, Ms. Heller was executive vice president of business development at Exelixis, Inc., where she was successful in negotiating multiple partnerships and securing more than \$500 million in guaranteed revenue. Prior to joining Exelixis from 2003 to 2008, Ms. Heller was head of strategic alliances at Novartis Pharmaceuticals Corporation, where she was responsible for transactions with partners in the pharmaceutical and biotech industries, as well as academic institutions worldwide. Ms. Heller is an instructor and guest lecturer at several universities as an expert in the business of strategy setting, deal making and negotiation. Ms. Heller is a member of the California State Bar and licensed by the U.S. Patent and Trademark Office. She holds a B.S. in biology from Tulane University, an M.A. in biology from American University and a J.D. from Golden Gate University School of Law. We believe that Ms. Heller's extensive experience in the pharmaceutical and biotechnology industry combined with her expertise in business development, licensing and legal affairs qualifies her to serve on our Board of Directors.

*Jeffrey S. Hatfield.* Mr. Hatfield has served as our Chief Executive Officer and member of our Board of Directors since October 2017. He previously served as president, chief executive officer and director of Vitae Pharmaceuticals, Inc., where he led the growth of the company from start-up in 2004, until its unsolicited acquisition by Allergan Plc. in 2016. Prior to joining Vitae, Mr. Hatfield worked as a senior executive at Bristol-Myers Squibb Corporation, or BMS, for twenty years, where he held roles of increasing responsibility including Senior Vice President, Immunology and Virology Divisions; President, BMS-Canada; and Vice President of US Market Access. During his career at BMS, Mr. Hatfield was directly involved with several successful commercial launches, including Plavix<sup>®</sup>, Pravachol<sup>®</sup>, Glucophage<sup>®</sup> and Atripla<sup>®</sup>. Mr. Hatfield currently serves as a board member of aTyr Pharma, Inc., InVivo Therapeutics, Inc. and miRagen Therapeutics, Inc. He previously served on the board of Ambit Therapeutics, Inc. before its acquisition by Daiichi-Sankyo, and on the board and Executive Committee of BIO (the Biotechnology Innovation Organization). Mr. Hatfield earned an M.B.A. from The Wharton School, University of Pennsylvania, and a B.S. from the College of Pharmacy, Purdue University, where he currently serves as an Adjunct Professor for doctoral students, and as a member of the Dean's Advisory Council. We believe that Mr. Hatfield's extensive experience as a CEO at Vitae, along with his extensive experience in the pharmaceutical and biotechnology industry qualifies him to serve on our Board of Directors.

*Thomas E. Hughes, Ph.D.* Dr. Hughes has served as a member of our Board of Directors since October 2008, our Chief Scientific Officer since October 2017 and our President since July 2016. Previously, Dr. Hughes served as our Chief Executive Officer from October 2008 to October 2017 and our President from October 2008 until June 2014. From 1987 to 2008, he held several positions at Novartis AG (and formerly Sandoz Pharmaceuticals) including vice president and global head of the cardiovascular and metabolic diseases therapeutic area at the Novartis Institutes for BioMedical Research in Cambridge, MA. In these roles he oversaw many drug discovery and development projects targeting obesity, diabetes and heart disease. Dr. Hughes is the author of over 40 peer-reviewed publications and is an inventor on numerous issued and pending patents related to the treatment of diabetes, cardiovascular disease and obesity. He currently serves as a member of the board of directors of miRagen Therapeutics, Inc. Dr. Hughes holds a Ph.D. in nutritional biochemistry from Tufts University, an M.S. in Zoology from Virginia Polytechnic Institute & State University and a B.A. in biology from Franklin and Marshall College. Dr. Hughes' qualifications to sit on our Board of Directors include his extensive knowledge of the obesity and metabolic disease industry combined with his leadership, executive,

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managerial and pharmaceutical company experience, and his more than 25 years of industry experience in the development and commercialization of pharmaceutical products.

*John L. LaMattina, Ph.D.* Dr. LaMattina has served as a member of our Board of Directors since December 2013. Since 2009, Dr. LaMattina has been a senior partner at PureTech Health, a technology development company focusing on biotech investments. Dr. LaMattina is also on the board of directors of PureTech Health. Prior to that, Dr. LaMattina spent 30 years at Pfizer Inc. beginning as a medicinal chemist in 1977. During his career, he was appointed to various positions of increasing responsibility for Pfizer Central Research, including Vice President of U.S. Discovery Operations in 1993, Senior Vice President of Worldwide Discovery Operations in 1998, Senior Vice President of Worldwide Development in 1999 and President of Pfizer Global R&D in 2003. Dr. LaMattina graduated with cum laude honors from Boston College with a B.S. in Chemistry. He received a Ph.D. from the University of New Hampshire in Organic Chemistry and subsequently was at Princeton University in the National Institutes of Health Postdoctoral Fellowship program. From 2008 to 2012, Dr. LaMattina served on the Board of Directors of Human Genome Sciences. From 2008 to 2010, Dr. LaMattina served on the Board of Directors of Neurogen Corp. Dr. LaMattina currently serves on several boards, including the Board of Directors of Ligand Pharmaceuticals, Inc., Gelesis, Inc. and Vedanta Biosciences, Inc. Dr. LaMattina's qualifications to sit on our Board of Directors include his valuable pharmaceutical experience, including his service at Pfizer Inc., one of the world's largest pharmaceutical companies, in addition to his experience on several boards and involvement in the biotechnology industry through his position as a senior partner and member of the board of directors at PureTech Health.

*Frank E. Thomas.* Mr. Thomas has served as a member of our Board of Directors since June 2014. Mr. Thomas has been the Chief Financial Officer and Chief Business Officer of Orchard Therapeutics Limited since January 2018, a development-stage biotechnology company based in the United Kingdom. Prior to Orchard, Mr. Thomas served as President and Chief Operating Officer of AMAG Pharmaceuticals, Inc., a publicly traded, specialty pharmaceutical company, from April 2015 to April 2017, as AMAG's Executive Vice President and Chief Operating Officer from May 2012 through April 2015 and as Executive Vice President, Chief Financial Officer and Treasurer from August 2011 through May 2012. Prior to AMAG, he served as Senior Vice President, Chief Operating Officer and Chief Financial Officer for Molecular Biometrics, Inc., a commercial stage medical diagnostics company, from October 2008 to July 2011. Prior to Molecular Biometrics, Mr. Thomas spent four years at Critical Therapeutics, Inc., a public biopharmaceutical company, from April 2004 to March 2008, where he was promoted to President in June 2006 and Chief Executive Officer in December 2006 from the position of Senior Vice President and Chief Financial Officer. He also served on the Board of Directors of Critical Therapeutics from 2006 to 2008. Prior to 2004, Mr. Thomas served as the Chief Financial Officer and Vice President of Finance and Investor Relations at Esperion Therapeutics, Inc., a public biopharmaceutical company. Since July 2017, Mr. Thomas has served on the Board of Directors of Spero Therapeutics, Inc., a publicly traded, development-stage biotechnology company. Mr. Thomas was a member of the Board of Directors of the Massachusetts Biotechnology Council from 2007 to 2015. Mr. Thomas holds a B.B.A. from the University of Michigan, Ann Arbor. We believe that Mr. Thomas' extensive management experience at biopharmaceutical companies and with financial matters qualifies him to serve on our Board of Directors.

### **Vote Required and Board of Directors' Recommendation**

Directors will be elected by a plurality of the votes cast by the stockholders entitled to vote on this proposal at the Annual Meeting. Broker non-votes and proxies marked to withhold authority with respect to one or more Class I directors will not be treated as votes cast for this purpose and, therefore, will not affect the outcome of the election.

The proposal for the election of directors relates solely to the election of Class I directors nominated by the Board of Directors.

*The Board of Directors recommends that stockholders vote FOR the election of each of the Class I director nominees listed above.*

## PROPOSAL 2

### RATIFICATION OF APPOINTMENT OF INDEPENDENT AUDITORS

On the recommendation of the Audit Committee of the Board of Directors, or the Audit Committee, the Board of Directors has appointed PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018. The Board of Directors recommends that stockholders vote for ratification of this appointment. If this proposal is not approved at the Annual Meeting, the Board of Directors will reconsider its appointment. Even if the appointment is ratified, the Audit Committee may, in its discretion, direct the appointment of a different independent registered accounting firm at any time during the year if the Audit Committee determines that such a change would be in our stockholders' best interests.

PricewaterhouseCoopers LLP audited our consolidated financial statements for the fiscal years ended December 31, 2017 and 2016. We expect representatives of PricewaterhouseCoopers LLP to be present at the Annual Meeting and available to respond to appropriate questions. They will have the opportunity to make a statement if they desire to do so.

#### PricewaterhouseCoopers LLP Fees

The following table sets forth the fees that our independent auditors, PricewaterhouseCoopers LLP, an independent registered public accounting firm, billed to us for audit and other services for the fiscal years ended December 31, 2017 and 2016.

	<u>2017</u>	<u>2016</u>
Audit Fees	\$462,200	\$410,935
Audit-Related Fees	—	—
Tax Fees	42,686	124,288
All Other Fees	956	—
Total	<u>\$505,842</u>	<u>\$535,223</u>

*Audit Fees.* Audit fees consist of fees billed for the audit of our annual consolidated financial statements, the review of the interim consolidated financial statements, and related services that are normally provided in connection with registration statements.

*Audit-Related Fees.* There were no such fees incurred in 2017 or 2016.

*Tax Fees.* Tax fees consist of fees for professional services, including tax consulting and compliance performed by PricewaterhouseCoopers LLP.

*All Other Fees.* All other fees represent payment for access to PricewaterhouseCoopers LLP on-line software tools. These fees were approved by the Audit Committee.

#### Pre-Approval of Audit and Non-Audit Services

It is the policy of our Audit Committee that all services to be provided by our independent registered public accounting firm, including audit services and permitted audit-related and non-audit services, must be approved in advance by our Audit Committee, and all such services provided in 2017 and 2016 were pre-approved by the Audit Committee.

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**Vote Required and Board of Directors' Recommendation**

The approval of Proposal 2 requires that a majority of the votes properly cast vote FOR this proposal. Shares that are voted "abstain" will not affect the outcome of this proposal.

*The Board of Directors recommends that stockholders vote FOR ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm, for the fiscal year ending December 31, 2018.*

**TRANSACTION OF OTHER BUSINESS**

The Board of Directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

**SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth certain information regarding beneficial ownership of our common stock as of April 2, 2018, for: each person known to us to be the beneficial owner of more than five percent of our outstanding common stock; each of our named executive officers; each of our directors and nominees; and all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Except as noted by footnote, and subject to community property laws where applicable, we believe based on the information provided to us that the persons and entities named in the table below have sole voting and investment power with respect to all shares of our common stock shown as beneficially owned by them.

The table lists applicable percentage ownership based on 27,563,346 shares of our common stock outstanding as of April 2, 2018. The number of shares beneficially owned includes shares of our common stock and shares of common stock that each person has the right to acquire within 60 days of April 2, 2018 upon the exercise of stock options. These stock options shall be deemed to be outstanding for the purpose of computing the percentage of outstanding shares of our common stock owned by such person but shall not be deemed to be outstanding for the purpose of computing the percentage of outstanding shares of our common stock owned by any other person.

Name and address of beneficial owner <sup>(1)</sup>	Shares beneficially owned	
	Number	Percent
<b>5% Stockholders</b>		
Atlas Venture Fund VII, L.P. <sup>(2)</sup>	4,632,730	16.8%
Entities Affiliated with FMR LLC <sup>(3)</sup>	4,068,520	14.8%
<b>Named Executive Officers and Directors</b>		
Jeffrey S. Hatfield <sup>(4)</sup>	—	— %
Thomas E. Hughes, Ph.D. <sup>(5)</sup>	826,007	2.9%
<b>Named Executive Officers</b>		
Dennis Kim, M.D., M.B.A. <sup>(6)</sup>	353,533	1.3%
Patricia L. Allen <sup>(7)</sup>	305,262	1.1%
<b>Other Directors</b>		
Peter Barrett, Ph.D. <sup>(8)</sup>	4,696,597	17.0%
Bruce Booth, Ph.D. <sup>(9)</sup>	4,676,158	17.0%
Thomas O. Daniel, M.D. <sup>(10)</sup>	52,626	*%
Frances K. Heller <sup>(11)</sup>	85,288	*%
John L. LaMattina, Ph.D. <sup>(12)</sup>	63,236	*%
Cameron Geoffrey McDonough, M.D. <sup>(13)</sup>	56,789	*%
Robert J. Perez <sup>(14)</sup>	55,440	*%
Frank E. Thomas <sup>(15)</sup>	37,327	*%
<b>All directors and executive officers as a group (12 persons) <sup>(16)</sup></b>	<b>6,575,533</b>	<b>23.7%</b>

\* Indicates beneficial ownership of less than one percent.

(1) Unless otherwise indicated, the address of each beneficial owner is c/o Zafgen, Inc., 175 Portland Street, 4th Floor, Boston, MA 02114.

(2) Based solely on a Schedule 13G filed on February 12, 2018 by Atlas Venture Fund VII, L.P. (or Atlas Venture VII). All shares are held directly by Atlas Venture VII. Atlas Venture Associates VII, L.P. (or AVA VII LP) is the general partner of Atlas Venture VII, and Atlas Venture Associates VII, Inc. (or AVA VII Inc.) is the general partner of AVA VII LP. Peter Barrett, Bruce Booth, Jean-Francois Formela and Jeff Fagnan is each a director of AVA VII Inc. (or collectively, the Directors). Drs. Barrett and Booth are also

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members of our Board of Directors. Each of Atlas Venture VII, AVA VII LP, AVA VII Inc. and the Directors disclaim beneficial ownership of the shares, except to the extent of their proportionate pecuniary interest therein, if any. The address of the filer is 25 First Street, Suite 303, Cambridge, MA 02141.

- (3) Based solely on a Schedule 13G/A filed on February 13, 2018 by FMR LLC, Abigail P. Johnson and Select Biotechnology Portfolio. Fidelity Management & Research Company (or Fidelity), a wholly-owned subsidiary of FMR LLC and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940, is the beneficial owner of shares of common stock as a result of acting as investment adviser to various investment companies (or Fidelity Funds), registered under Section 8 of the Investment Company Act of 1940. Consists of 4,068,520 shares of common stock held by entities affiliated with FMR LLC. Ms. Johnson is a director, the vice chairman, the chief executive officer and the president of FMR LLC. Ms. Johnson and FMR LLC, through its control of Fidelity and the Fidelity Funds, each has sole power to dispose of the shares owned by the Fidelity Funds. Neither FMR LLC nor Ms. Johnson has the sole power to vote or direct the voting of the shares owned directly by the Fidelity Funds, which power resides with the Fidelity Funds' Boards of Trustees. Fidelity carries out the voting of the shares under written guidelines established by the Fidelity Funds' Boards of Trustees. The address of each filer is 245 Summer Street, Boston, MA 02210.
- (4) Mr. Hatfield was hired in October 2017. He does not own any common stock and does not have any common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (5) Consists of 157,247 shares of common stock and 668,760 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (6) Consists of 21,443 shares of common stock and 332,090 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (7) Consists of 24,793 shares of common stock and 280,469 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (8) Consists of (i) 10,597 shares of common stock Dr. Barrett holds in his individual capacity, (ii) 53,270 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018 and (iii) 4,632,730 shares of common stock described in note (2) above. Dr. Barrett is a general partner of Atlas Venture Fund VII, L.P., and as such Dr. Barrett may be deemed to share voting and dispositive power with respect to all shares held by such entity. Dr. Barrett disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. Dr. Barrett's business address is 400 Technology Square, 10th Floor, Cambridge, MA 02139.
- (9) Consists of (i) 5,298 shares of common stock Dr. Booth holds in his individual capacity, (ii) 38,130 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018 and (iii) 4,632,730 shares of common stock described in note (2) above. Dr. Booth is a general partner of Atlas Venture Fund VII, L.P., and as such Dr. Booth may be deemed to share voting and dispositive power with respect to all shares held by such entity. Dr. Booth disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. Dr. Booth's business address is 400 Technology Square, 10th Floor, Cambridge, MA 02139.
- (10) Consists of (i) 10,765 shares of common stock, (ii) 8,687 shares of common stock Dr. Daniel holds subject to restrictions under a Restricted Stock Agreement, which lapse over a period of one year starting January 1, 2018 on a quarterly basis in arrears and (iii) 33,174 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (11) Consists of 47,961 shares of common stock and 37,327 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (12) Consists of (i) 11,363 shares of common stock, (ii) 9,169 shares of common stock Dr. LaMattina holds subject to restrictions under a Restricted Stock Agreement, which lapse over a period of one year starting January 1, 2018 on a quarterly basis in arrears and (iii) 42,704 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (13) Consists of 56,789 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (14) Consists of 6,463 shares of common stock and 48,977 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.

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- (15) Consists of 37,327 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.
- (16) Consists of 4,946,516 shares of common stock and 1,629,017 shares of common stock issuable upon exercise of options within 60 days of April 2, 2018.

## EXECUTIVE OFFICERS

The following table identifies our executive officers and sets forth their current position(s) at Zafgen and their ages as of April 2, 2018.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Jeffrey S. Hatfield	60	Chief Executive Officer and Director
Thomas E. Hughes, Ph.D.	58	President, Chief Scientific Officer and Director
Dennis D. Kim, M.D., M.B.A.	48	Chief Medical Officer
Patricia L. Allen	56	Chief Financial Officer

You should refer to “*Proposal 1: Election of Directors*” above for information about our Chief Executive Officer, Jeffrey S. Hatfield and our President and Chief Scientific Officer, Thomas E. Hughes, Ph.D. Biographical information for our other executive officers, as of April 2, 2018, is set forth below.

*Dennis D. Kim, M.D., M.B.A.* Dr. Kim has served as our Chief Medical Officer since September 2011. From 2001 to 2012, Dr. Kim was an assistant professor of medicine, division of endocrinology/metabolism, at the University of California, San Diego School of Medicine. From September 2008 to February 2011, Dr. Kim held multiple senior-level clinical and corporate affairs positions at Orexigen Therapeutics, Inc. a publicly-traded biopharmaceutical company focused on the treatment of obesity, including senior vice president, head of obesity/metabolic diseases; senior vice president, corporate development; and senior vice president, medical affairs and communications. Prior to Orexigen, from September 2007 to September 2008, he was chief medical officer and vice president of medical affairs at EnteroMedics, Inc. a publicly traded medical device company, where he oversaw all aspects of clinical affairs and successfully implemented an initial public offering as part of the executive team in 2007. Previously, from July 2001 to September 2007, he held positions of increasing responsibility at Amylin Pharmaceuticals, Inc., a publicly traded biotechnology company, most recently as executive director, corporate strategy, where he managed corporate and business strategic planning spanning all commercial products, developmental drug candidates, corporate alliance partnership and manufacturing support. Dr. Kim holds an M.D. from the University of Health Sciences, The Chicago Medical School, an M.B.A from University of California, San Diego Rady School of Management and a B.S. in biology from the University of California at Los Angeles.

*Patricia L. Allen.* Ms. Allen has served as our Chief Financial Officer since January 2013. Ms. Allen has over 20 years of financial leadership experience in the biotechnology industry at both publicly traded and private companies. From 2011 to 2012, she provided independent consulting services to biotechnology companies in a variety of areas, including interim CFO services, fundraising, deal structures, financial planning, organizational structure, investor relations and business development. Previously, from 2004 to 2011, Ms. Allen served as the Vice President of Finance, Treasurer and Principal Financial Officer of Alnylam Pharmaceuticals, Inc., a publicly traded biotechnology company, where she had significant interactions with the investment community and was influential in raising over \$900 million via the company’s initial public offering, follow-on common stock offerings and multiple business development transactions with top-tier pharmaceutical companies. Prior to Alnylam, Ms. Allen was at Alkermes, Inc., a publicly traded biotechnology company, most recently as the Director of Finance. Ms. Allen began her career as an auditor at Deloitte & Touche, LLP. Since September 2016, Ms. Allen has served on the board of directors of Deciphera Pharmaceuticals, Inc., a publicly traded clinical stage biopharmaceutical company. Ms. Allen graduated summa cum laude from Bryant College with a B.S. in business administration.

## RELATED PERSON TRANSACTIONS

We describe below the transactions, and series of similar transactions, since January 1, 2017, to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed \$120,000; and
- any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

We did not enter into any related party transactions in 2017.

We have adopted a written policy that requires all transactions between us and any director, executive officer, holder of 5% or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of them, or any other related persons (as defined in Item 404 of Regulation S-K) or their affiliates, in which the amount involved is equal to or greater than \$120,000, be approved in advance by our Audit Committee. Any request for such a transaction must first be presented to our Audit Committee for review, consideration and approval. In approving or rejecting any such proposal, our Audit Committee is to consider the relevant facts and circumstances available and deemed relevant to the Audit Committee, including, but not limited to, the extent of the related party's interest in the transaction, and whether the transaction is on terms no less favorable to us than terms we could have generally obtained from an unaffiliated third party under the same or similar circumstances.

**COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION**

During 2017, John L. LaMattina, Ph.D., Thomas O. Daniel, M.D. and Cameron Geoffrey McDonough, M.D. served on the Compensation Committee of the Board of Directors, or Compensation Committee, which was chaired by Dr. Daniel. None of the members of our Compensation Committee has at any time during the last three years been one of our officers or employees or had any relationship requiring disclosure under Item 404 of Regulation S-K. 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.

**SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE**

Section 16(a) of the Exchange Act requires our officers and directors and persons who beneficially own more than 10% of our outstanding common stock, or Reporting Persons, to file reports of beneficial ownership and changes in beneficial ownership with the SEC. Reporting Persons are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. Based solely on our review of such reports received or written representations from certain Reporting Persons during the fiscal year ended December 31, 2017, we believe that all Reporting Persons complied with all Section 16(a) reporting requirements.

## CORPORATE GOVERNANCE

### Board and Committee Matters

*Board Leadership and Independence.* Our Board of Directors has determined that all members of the Board of Directors, except Mr. Hatfield and Dr. Hughes, are independent, as determined in accordance with the rules of the NASDAQ Stock Market. In making such independence determination, the Board of Directors considered the relationships that each such nonemployee director has with us and all other facts and circumstances that the Board of Directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each nonemployee director. In considering the independence of the directors listed above, our Board of Directors considered the association of our directors with the holders of more than 5% of our common stock. There are no family relationships among any of our directors or executive officers.

The positions of our Chairman of the Board of Directors, or Chairman of the Board, and Chief Executive Officer are presently separated. Separating these positions allows our Chief Executive Officer to focus on our day-to-day business, while allowing the Chairman of the Board to lead the Board of Directors in its fundamental role of providing advice to and independent oversight of management. Our Board of Directors recognizes the time, effort and energy that the Chief Executive Officer must devote to his position in the current business environment, as well as the commitment required to serve as Chairman of the Board, particularly as the Board of Directors' oversight responsibilities continue to grow. Our Board of Directors also believes that this structure ensures a greater role for the non-management directors in the oversight of our company and active participation of the independent directors in setting agendas and establishing priorities and procedures for the work of our Board of Directors. Our Board of Directors believes its administration of its risk oversight function has not affected its leadership structure. Although our By-laws do not require our Chairman of the Board and Chief Executive Officer positions to be separate, our Board of Directors believes that having separate positions is the appropriate leadership structure for us at this time.

*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. The current version of the Code of Business Conduct and Ethics is available on our website at <http://ir.zafgen.com/corporate-governance>. A copy of the Code of Business Conduct and Ethics may also be obtained, free of charge, upon a request directed to: Zafgen, Inc., 175 Portland Street, 4th Floor, Boston, MA 02114, Attention: Chief Financial Officer. We intend to disclose any amendment or waiver of a provision of the Code of Business Conduct and Ethics that applies to our principal executive officer, principal financial officer, or principal accounting officer, or persons performing similar functions, by posting such information on our website (available at <http://www.zafgen.com/>) and/or in our public filings with the SEC.

*Corporate Governance Guidelines.* The Board of Directors has adopted corporate governance guidelines to assist and guide its members in the exercise of its responsibilities. These guidelines should be interpreted in accordance with any requirements imposed by applicable federal or state law or regulation, the NASDAQ Stock Market and our Certificate of Incorporation and By-laws. Our corporate governance guidelines are available in the corporate governance section of our website at <http://ir.zafgen.com/corporate-governance>. Although these corporate governance guidelines have been approved by the Board of Directors, it is expected that these guidelines will evolve over time as customary practice and legal requirements change. In particular, guidelines that encompass legal, regulatory or exchange requirements as they currently exist will be deemed to be modified as and to the extent that such legal, regulatory or exchange requirements are modified. In addition, the guidelines may also be amended by the Board of Directors at any time as it deems appropriate.

*Board Meetings and Committees.* Our Board of Directors held 5 meetings during 2017. The independent directors regularly hold executive sessions at meetings of the Board of Directors. During 2017, each of the directors then in office attended at least 75% of the aggregate of all meetings of the Board of Directors and at

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least 75% of the aggregate of all meetings of the committees of the Board of Directors on which such director then served. Continuing directors and nominees for election as directors in a given year are encouraged to attend the annual meeting of stockholders. All directors serving on the Board of Directors as of our 2017 annual meeting of stockholders attended that meeting except for Frances K. Heller.

Our Board of Directors has three standing committees: Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee.

### *Audit Committee.*

Frances K. Heller, John L. LaMattina, Ph.D. and Frank E. Thomas serve on the Audit Committee, which is chaired by Mr. Thomas. Our Board of Directors has determined that all members of the Audit Committee are “independent” for Audit Committee purposes as that term is defined in the rules of the SEC and the applicable NASDAQ Stock Market rules, and have sufficient knowledge in financial and auditing matters to serve on the Audit Committee. Our Board of Directors has designated Frank E. Thomas as an “audit committee financial expert,” as defined under the applicable rules of the SEC. The Audit Committee’s responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our consolidated financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly consolidated financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and 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;
- recommending based upon the Audit Committee’s review and discussions with management and our independent registered public accounting firm whether our audited consolidated financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our consolidated financial statements and our compliance with legal and regulatory requirements as they relate to our consolidated financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

The Audit Committee held 4 meetings during 2017. The Audit Committee operates under a written charter that satisfies the applicable standards of the SEC and the NASDAQ Stock Market. A copy of the audit committee charter is available on our website at <http://ir.zafgen.com/corporate-governance>.

### *Compensation Committee.*

Thomas O. Daniel, M.D., John L. LaMattina, Ph.D. and Cameron Geoffrey McDonough, M.D. serve on the Compensation Committee, which is chaired by Dr. Daniel. Our Board of Directors has determined that each

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member of the Compensation Committee is “independent” as defined in the applicable NASDAQ Stock Market rules. The Compensation Committee’s responsibilities include:

- annually reviewing and approving corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and determining the compensation of our Chief Executive Officer;
- reviewing and approving the compensation of our other executive officers;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and making recommendations to the Board of Directors with respect to director compensation;
- reviewing and discussing with management the compensation discussion and analysis to be included in our annual proxy statement or Annual Report on Form 10-K; and
- reviewing and discussing with the Board of Directors the corporate succession plans for the Chief Executive Officer and other key officers.

The Compensation Committee held 2 meetings during 2017. The Compensation Committee operates under a written charter adopted by the Board, which is available on our website at <http://ir.zafgen.com/corporate-governance>.

### *Nominating and Corporate Governance Committee.*

Peter Barrett, Ph.D. and Robert J. Perez serve on the Nominating and Corporate Governance Committee, which is chaired by Dr. Barrett. Our Board of Directors has determined that each member of the Nominating and Corporate Governance Committee is “independent” as defined in the applicable NASDAQ Stock Market rules. 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;
- reviewing the size and composition of the Board of Directors to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- 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 code of business conduct and ethics and a set of corporate governance guidelines;
- developing a mechanism by which violations of the code of business conduct and ethics can be reported in a confidential manner; and
- overseeing the evaluation of the Board of Directors and management.

The Nominating and Corporate Governance Committee held no meetings during 2017, and conducted its business through unanimous written consent. The Nominating and Corporate Governance Committee operates pursuant to a written charter adopted by the Board, which is available on our website at <http://ir.zafgen.com/corporate-governance>.

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The Nominating and Corporate Governance Committee considers candidates for Board membership suggested by its members and the Chief Executive Officer. Additionally, in selecting nominees for directors, the Nominating and Corporate Governance Committee will review candidates recommended by stockholders in the same manner and using the same general criteria as candidates recruited by the committee and/or recommended by the Board of Directors. Any stockholder who wishes to recommend a candidate for consideration by the committee as a nominee for director should follow the procedures described later in this Proxy Statement under the heading “Stockholder Recommendations.” The Nominating and Corporate Governance Committee will also consider whether to nominate any person proposed by a stockholder in accordance with the provisions of our By-laws relating to stockholder nominations as described previously in this Proxy Statement under the heading “Procedure for Submitting Stockholder Proposals.”

*Identifying and Evaluating Director Nominees.* The Board of Directors is responsible for selecting its own members. The Board of Directors delegates the selection and nomination process to the Nominating and Corporate Governance Committee, with the expectation that other members of the Board of Directors, and of management, will be requested to take part in the process as appropriate.

Generally, the Nominating and Corporate Governance Committee identifies candidates for director nominees in consultation with management, through the use of search firms or other advisors, through the recommendations submitted by stockholders or through such other methods as the Nominating and Corporate Governance Committee deems to be helpful to identify candidates. Once candidates have been identified, the Nominating and Corporate Governance Committee confirms that the candidates meet all of the minimum qualifications for director nominees established by the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee may gather information about the candidates through interviews, detailed questionnaires, comprehensive background checks or any other means that the Nominating and Corporate Governance Committee deems to be appropriate in the evaluation process. The Nominating and Corporate Governance Committee then meets as a group to discuss and evaluate the qualities and skills of each candidate, both on an individual basis and taking into account the overall composition and needs of the Board of Directors. Based on the results of the evaluation process, the Nominating and Corporate Governance Committee recommends candidates for the Board of Director’s approval as director nominees for election to the Board of Directors.

*Minimum Qualifications.* The Nominating and Corporate Governance Committee will consider, among other things, the following qualifications, skills and attributes when recommending candidates for the Board of Director’s selection as nominees for the Board of Directors and as candidates for appointment to the Board of Director’s committees. The nominee shall have the highest personal and professional integrity, shall have demonstrated exceptional ability and judgment, and shall be most effective, in conjunction with the other nominees to the Board of Directors, in collectively serving the long-term interests of the stockholders.

In evaluating proposed director candidates, the Nominating and Corporate Governance Committee may consider, in addition to the minimum qualifications and other criteria for Board of Directors membership approved by the Board of Directors from time to time, all facts and circumstances that it deems appropriate or advisable, including, among other things, the skills of the proposed director candidate, his or her depth and breadth of professional experience or other background characteristics, his or her independence and the needs of the Board of Directors.

*Stockholder Recommendations.* Stockholders may submit recommendations for director candidates to the Nominating and Corporate Governance Committee by sending the individual’s name and qualifications to our Secretary at Zafgen, Inc., 175 Portland Street, 4th Floor, Boston, MA 02114, who will forward all recommendations to the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee will evaluate any candidates recommended by stockholders against the same criteria and pursuant to the same policies and procedures applicable to the evaluation of candidates proposed by directors or management.

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*Stockholder Communications.* The Board of Directors provides to every stockholder the ability to communicate with the Board of Directors, as a whole, and with individual directors on the Board of Directors through an established process for stockholder communication. For a stockholder communication directed to the Board of Directors as a whole, stockholders may send such communication to the attention of the Chairman of the Board via U.S. Mail or Expedited Delivery Service to: Zafgen, Inc., 175 Portland Street, 4th Floor, Boston, MA 02114, Attention: Chairman of the Board.

For a stockholder communication directed to an individual director in his or her capacity as a member of the Board of Directors, stockholders may send such communication to the attention of the individual director via U.S. Mail or Expedited Delivery Service to: Zafgen, Inc., 175 Portland Street, 4th Floor, Boston, MA 02114, Attention: [Name of Individual Director].

We will forward by U.S. Mail any such stockholder communication to each director, and the Chairman of the Board in his or her capacity as a representative of the Board of Directors, to whom such stockholder communication is addressed to the address specified by each such director and the Chairman of the Board, unless there are safety or security concerns that mitigate against further transmission.

*Risk Oversight.* Our Board of Directors oversees the management of risks inherent in the operation of our business and the implementation of our business strategies. Our Board of Directors performs this oversight role by using several different levels of review. In connection with its reviews of the operations and corporate functions of our company, our Board of Directors addresses the primary risks associated with those operations and corporate functions. In addition, our Board of Directors reviews the risks associated with our company's business strategies periodically throughout the year as part of its consideration of undertaking any such business strategies.

Each committee of our Board of Directors also oversees the management of our risk that falls within the committee's areas of responsibility. In performing this function, each committee has full access to management, as well as the ability to engage advisors. In connection with its risk management role, our Audit Committee meets privately with representatives from our independent registered public accounting firm, and privately with our Chief Financial Officer. The Audit Committee oversees the operation of our risk management program, including the identification of the primary risks associated with our business and periodic updates to such risks, and reports to our Board of Directors regarding these activities.

### **Audit Committee Report**

The information contained in this report shall not be deemed to be (1) "soliciting material," (2) "filed" with the SEC, (3) subject to Regulations 14A or 14C of the Exchange Act, or (4) subject to the liabilities of Section 18 of the Exchange Act. This report shall not be deemed incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent that we specifically incorporate it by reference into such filing.

The Audit Committee operates under a written charter approved by the Board of Directors, which provides that its responsibilities include the oversight of the quality of our financial reports and other financial information and its compliance with legal and regulatory requirements; the appointment, compensation, and oversight of our independent registered public accounting firm, PricewaterhouseCoopers LLP, including reviewing their independence; reviewing and approving the planned scope of our annual audit; reviewing and pre-approving any non-audit services that may be performed by PricewaterhouseCoopers LLP; the oversight of our internal audit function; reviewing with management and our independent registered public accounting firm the adequacy of internal financial controls; and reviewing our critical accounting policies and estimates and the application of accounting principles generally accepted in the United States of America.

The Audit Committee oversees our financial reporting process on behalf of the Board of Directors. Management is responsible for our internal controls, financial reporting process, and compliance with laws and

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regulations and ethical business standards. PricewaterhouseCoopers LLP is responsible for performing an independent audit of our consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States), or PCAOB. The Audit Committee's main responsibility is to monitor and oversee this process.

The Audit Committee reviewed and discussed our audited consolidated financial statements for the fiscal year ended December 31, 2017, with management. The Audit Committee discussed with PricewaterhouseCoopers LLP the matters required to be discussed by PCAOB Auditing Standard No. 16, *Communications with Audit Committees*, and SEC Regulation S-X Rule 207, *Communications with Audit Committees*. The Audit Committee has received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence, and has discussed with the independent registered public accounting firm the independent registered public accounting firm's independence.

The Audit Committee considered any fees paid to PricewaterhouseCoopers LLP for the provision of non-audit related services, if any, and does not believe that these fees compromise PricewaterhouseCoopers LLP's independence in performing the audit.

Based on the review and discussions referred to above, the Audit Committee recommended to the Board of Directors that such audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2017, for filing with the SEC.

*THE AUDIT COMMITTEE*

Frank E. Thomas, Chair  
John L. LaMattina, Ph.D.  
Frances K. Heller

## EXECUTIVE COMPENSATION

Our executive compensation consists of base salary, cash incentive bonuses, long-term incentive compensation in the form of restricted common stock, restricted stock units and/or stock options and broad-based benefits programs. We have not adopted any formal guidelines for allocating total compensation between long-term and short-term compensation, cash compensation and non-cash compensation, or among different forms of non-cash compensation. The Compensation Committee considers a number of factors in setting compensation for its executive officers, including Company performance, as well as the executive's performance, experience, responsibilities and the compensation of executive officers in similar positions at comparable companies.

### *Base Salary*

Base salary is intended to provide compensation for day-to-day performance. The Compensation Committee believes that a competitive base salary is a necessary element of any compensation program that is designed to attract and retain talented and experienced executives. Base salaries for our named executive officers are intended to be competitive with those received by other individuals in similar positions at the companies with which we compete for talent. Base salaries are originally established at the time the executive is hired based on individual experience, skills and expected contributions, our understanding of what executives in similar positions at peer companies were paid, and also negotiations during the hiring process. The base salaries of our named executive officers are reviewed annually and may be adjusted to reflect market conditions and our executives' performance during the prior year as well as the financial position of the Company, or if there is a change in the scope of the officer's responsibilities.

### *Performance-based Cash Bonus*

Our Compensation Committee has the authority to award annual performance-based cash bonuses to our executive officers. In 2018, the Compensation Committee awarded cash bonuses to named executive officers in recognition of their performance in achieving certain corporate, clinical, and operational milestones for 2017. In 2017, the Compensation Committee awarded cash bonuses to our named executive officers in recognition of their performance in achieving certain corporate, clinical, and operational milestones during 2016. The amounts of such performance-based cash bonus awarded for 2017 and 2016 are set forth in the column "Non-Equity Incentive Plan Compensation" in the "Summary Compensation Table—2017 and 2016 Fiscal Years" below.

### *Equity Incentive Compensation*

Equity incentive grants to our named executive officers are made at the discretion of the Compensation Committee under the terms of the 2014 Stock Option and Incentive Plan. We believe that equity incentives subject to vesting over time can be an effective vehicle for the long-term element of compensation, as these awards align individual and team performance with the achievement of our strategic and financial goals over time, and with stockholders' interests. Stock options, which have exercise prices equal to at least fair market value of our common stock on the date of grant, reward executive officers only if the stock price increases from the date of grant.

### *Employee Benefits*

In addition to the primary elements of compensation described above, the named executive officers also participate in the same broad-based employee benefits programs available to all of our employees, including health insurance, life and disability insurance, dental insurance and our new 401(k) plan. The Company does not provide special benefits to its executives and officers.

### *Simple IRA and 401(k)*

In 2009, we established a Savings Incentive Match Plan, or Simple IRA, for employees. Under the terms of the plan, we contribute 2% of an employee's annual base salary, up to a maximum of the annual Internal

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Revenue Service, or IRS, compensation limits, for all full-time employees. We terminated this plan as of December 31, 2017 and implemented a new 401(k) plan in 2018. Under the terms of the 401(k) plan, we contribute 3% of an employee's annual base salary for all full-time employees.

### Summary Compensation Table—2017 and 2016 Fiscal Years

The following table presents information regarding the total compensation awarded to, earned by, and paid during the fiscal years ended December 31, 2017 and 2016 to each individual serving as our Chief Executive Officer in 2017 and the two most highly-compensated executive officers (other than any individual serving as Chief Executive Officer in 2017) who were serving as executive officers as of December 31, 2017. These individuals are our named executive officers for 2017.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awards <sup>(1)</sup> (\$)	Non-Equity Incentive Plan Compensation <sup>(2)</sup> (\$)	All Other Compensation <sup>(5)</sup> (\$)	Total (\$)
Jeffrey S. Hatfield <i>Chief Executive Officer</i>	2017	114,583 <sup>(3)</sup>	100,000 <sup>(4)</sup>	4,262,335	48,177	4,292	4,529,387
Thomas E. Hughes, Ph.D. <i>President and Chief Scientific Officer</i>	2017	480,000		1,346,659	222,000	5,400	2,054,059
	2016	463,500		1,835,192	196,988	5,300	2,500,980
Dennis D. Kim, M.D., M.B.A. <i>Chief Medical Officer</i>	2017	392,000		261,492	126,910	5,400	785,802
	2016	378,525		552,769	112,611	5,300	1,049,205
Patricia L. Allen <i>Chief Financial Officer</i>	2017	331,000		261,492	107,161	5,400	705,053
	2016	320,000		530,658	95,200	5,300	951,158

- (1) Amounts represent the aggregate grant-date fair value of option awards granted to our named executive officers in 2017 and 2016 computed in accordance with FASB ASC Topic 718. The assumptions used in the valuation of these awards are consistent with the valuation methodologies specified in the notes to our consolidated financial statements and discussions in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Annual Report on Form 10-K for 2017. The amounts above reflect our aggregate accounting expense for these awards and do not necessarily correspond to the actual value that will be recognized by the named executive officers.
- (2) Represents amount of performance-based cash bonuses earned for 2017 and 2016.
- (3) Represents base salary earned by Mr. Hatfield for services as Chief Executive Officer during 2017. Mr. Hatfield's employment with us commenced on October 9, 2017 and his annual base salary during this period was \$500,000.
- (4) Represents a sign-on bonus of \$100,000.
- (5) Consists of employer match contribution to the Simple IRA.

### Employment Agreements with Our Named Executive Officers

We have entered into an employment agreement or offer letter with each of our named executive officers in connection with their employment with us. These employment agreements and offer letters provide for "at will" employment and a double trigger for change of control.

*Jeffrey S. Hatfield.* On October 9, 2017, we entered into an offer letter and a severance and change in control agreement with Mr. Hatfield, our Chief Executive Officer. Pursuant to the severance and change in control agreement, in the event that Mr. Hatfield terminates his employment with "good reason" or is terminated without "cause," he is eligible to receive 12 months of base salary continuation and 12 months of COBRA continuation medical benefits subsidized by us, provided that he executes and does not revoke a separation agreement and release of us and our affiliates. In the event that Mr. Hatfield's employment is terminated without "cause" or he

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terminates his employment for “good reason” within 12 months of a “change of control,” Mr. Hatfield is eligible to receive 18 months base salary continuation, 18 months of COBRA continuation medical benefits subsidized by us, and all options and other stock-based awards held by him shall immediately accelerate and become fully exercisable or non-forfeitable as of the date of termination, provided that he executes and does not revoke a separation agreement and release of us and our affiliates. Currently, Mr. Hatfield receives a base salary of \$518,000, which is subject to review and adjustment in accordance with company policy. Mr. Hatfield is also eligible for an annual merit bonus with a target bonus opportunity of 50% of his base salary for 2018, payable at the discretion of the Board of Directors, based upon performance. Mr. Hatfield is eligible to participate in our employee benefit plans generally available to our executive employees, subject to the terms of those plans.

*Thomas E. Hughes, Ph.D.* On June 30, 2016, we entered into a severance and change in control agreement with Dr. Hughes, our President and Chief Scientific Officer, which supersedes any terms of his prior offer letter. Pursuant to the severance and change in control agreement, in the event that Dr. Hughes terminates his employment with “good reason” or is terminated without “cause,” he is eligible to receive 12 months of base salary continuation and 12 months of COBRA continuation medical benefits subsidized by us, provided that he executes and does not revoke a separation agreement and release of us and our affiliates. In the event that Dr. Hughes’ employment is terminated without “cause” or he terminates his employment for “good reason” within 12 months of a “change of control,” Dr. Hughes is eligible to receive 18 months of base salary continuation, 18 months of COBRA continuation medical benefits subsidized by us, and all options and other stock-based awards held by him shall immediately accelerate and become fully exercisable or non-forfeitable as of the date of termination, provided that he executes and does not revoke a separation agreement and release of us and our affiliates. Furthermore, effective as of October 9, 2017, we entered into an offer letter with Dr. Hughes in connection with his transition from Chief Executive Officer to Chief Scientific Officer. Pursuant to the offer letter, Dr. Hughes agreed to waive his option to resign for “good reason,” in connection with such transition, but if he terminates his employment on the third anniversary of the effective date of the offer letter, he is eligible to receive (i) 12 months of base salary continuation and 12 months of COBRA continuation medical benefits subsidized by us, (ii) pro-rated bonus for the time period between January 1, 2020 and such third anniversary, as determined by the Compensation Committee, and (iii) 12 months of accelerated vesting of his then outstanding time-based equity awards, provided that he executes and does not revoke a separation agreement and release of us and our affiliates. Currently, Dr. Hughes receives a base salary of \$497,000, which is subject to review and adjustment in accordance with company policy. Dr. Hughes is also eligible for an annual merit bonus with a target bonus opportunity of 50% of his base salary for 2018, payable at the discretion of the Board of Directors, based upon performance. Dr. Hughes is eligible to participate in our employee benefit plans generally available to our executive employees, subject to the terms of those plans.

*Dennis D. Kim, M.D., M.B.A.* On June 30, 2016, we entered into a severance and change in control agreement with Dr. Kim, our Chief Medical Officer, which supersedes any terms of his prior offer letter. Pursuant to his severance and change in control agreement, in the event that Dr. Kim terminates his employment with “good reason” or is terminated without “cause,” he is eligible to receive nine months of base salary continuation and nine months of COBRA continuation medical benefits subsidized by us, provided that he executes and does not revoke a separation agreement and release of us and our affiliates. In the event that Dr. Kim’s employment is terminated without “cause” or he terminates his employment for “good reason” within 12 months of a “change of control,” he is eligible to receive 12 months of base salary continuation and 12 months of COBRA continuation medical benefits subsidized by us, and all options and other stock-based awards held by him shall immediately accelerate and become fully exercisable or non-forfeitable as of the date of termination, provided that he executes and does not revoke a separation agreement and release of us and our affiliates. Currently, Dr. Kim receives a base salary of \$409,000, which is subject to review and adjustment in accordance with company policy. Dr. Kim is also eligible for an annual merit bonus with a target bonus opportunity of 35% of his base salary for 2018, payable at the discretion of the Board of Directors, based upon performance. Dr. Kim is eligible to participate in our employee benefit plans generally available to our executive employees, subject to the terms of those plans.

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*Patricia L. Allen.* On June 30, 2016, we entered into a severance and change in control agreement with Ms. Allen, our Chief Financial Officer, which supersedes any terms of her prior offer letter. Pursuant to her severance and change in control agreement, in the event that Ms. Allen terminates her employment with “good reason” or is terminated without “cause,” she is eligible to receive nine months of base salary continuation and nine months of COBRA continuation medical benefits subsidized by us, provided that she executes and does not revoke a separation agreement and release of us and our affiliates. In the event that Ms. Allen’s employment is terminated without “cause” or she terminates her employment for “good reason” within 12 months of a “change of control”, she is eligible to receive 12 months of base salary continuation and 12 months of COBRA continuation medical benefits subsidized by us, and all options and other stock-based awards held by her shall immediately accelerate and become fully exercisable or non-forfeitable as of the date of termination, provided that she executes and does not revoke a separation agreement and release of us and our affiliates. Currently, Ms. Allen receives a base salary of \$370,000, which is subject to review and adjustment in accordance with company policy. Ms. Allen is also eligible for an annual merit bonus with a target bonus opportunity of 35% of her base salary for 2018, payable at the discretion of the Board of Directors, based upon performance. Ms. Allen is eligible to participate in our employee benefit plans generally available to our executive employees, subject to the terms of those plans.

For purposes of the severance and change in control agreements of our named executive officers, “cause” means:

- the commission by the officer of any felony, any crime involving the Company, or any crime involving fraud or dishonesty;
- any unauthorized use or disclosure of the Company’s proprietary information by the officer;
- any intentional misconduct or gross negligence on the officer’s part which has a materially adverse effect on the Company’s business or reputation; or
- the officer’s repeated and willful failure to perform the duties, functions and responsibilities of the officer’s position after a written warning from the Company.

For purposes of the severance and change in control agreements of our named executive officers, “good reason” means:

- a material diminution in the officer’s title, responsibilities, authority or duties;
- a material diminution in the officer’s base salary except for across-the-board salary reductions based on the Company’s financial performance similarly affecting all or substantially all senior management employees of the Company;
- a breach by the Company of the material terms of the severance and change in control agreement or any other written agreement between the Company and the officer; or
- a 50 mile or greater change in the geographic location at which the officer is required to provide services to the Company, not including business travel and short-term assignments.

For purposes of the severance and change in control agreements of our named executive officers, a “change in control” shall be deemed to have occurred upon the occurrence of any one of the following events:

- the sale or exclusive out-license (even as to the Company) of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity;
- a merger, reorganization or consolidation pursuant to which the holders of the Company’s outstanding voting power and outstanding stock immediately prior to such transaction do not own a majority of the outstanding voting power or fair market value of the stock or other equity interests of the resulting or successor entity (or its ultimate parent, if applicable) immediately upon completion of such transaction;

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- the sale of all of the stock of the Company to an unrelated person, entity or group thereof acting in concert; or
- any other transaction in which the owners of the Company’s outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the Company or any successor entity immediately upon completion of the transaction other than as a result of the acquisition of securities directly from the Company.

**Employee Confidentiality, Non-Competition, Non-Solicitation and Assignment Agreements**

Each of our named executive officers has entered into a standard form agreement with respect to confidential information and assignment of inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our proprietary information received during the course of employment and to assign to us any inventions conceived or developed during the course of employment. Such agreement also provides that during the period of the named executive officer’s employment and for 12 months thereafter, the named executive officer will not compete with us and will not solicit our employees, consultants, customers or suppliers.

**Outstanding Equity Awards at Fiscal Year-End—2017**

The following table summarizes, for each of the named executive officers, the number of shares of common stock underlying outstanding stock options held as of December 31, 2017.

Name	Option Awards				
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Option Exercise Price (\$)	Option Expiration Date
Jeffrey S. Hatfield	—	550,000(1)	—	3.40	10/9/2027
	—	—	1,100,000(2)	3.40	10/9/2027
Thomas E. Hughes, Ph.D.	160,555(3)	—	—	2.45	6/12/2023
	123,750	56,250(4)	—	45.57	3/17/2025
	108,937	140,063(5)	—	6.68	3/31/2026
	62,250	62,250(6)	—	6.68	3/31/2026
	—	319,000(7)	—	4.05	1/27/2027
	—	—	275,000(8)	3.40	10/9/2027
Dennis D. Kim, M.D., M.B.A.	103,312(9)	—	—	1.57	10/11/2021
	48,197(10)	—	—	2.45	6/12/2023
	63,750	26,250(11)	—	38.65	2/27/2025
	32,812	42,188(12)	—	6.68	3/31/2026
	18,750	18,750(13)	—	6.68	3/31/2026
	—	88,000(14)	—	4.05	1/27/2027
Patricia L. Allen	127,388(15)	—	—	2.45	6/12/2023
	42,500	17,500(16)	—	38.65	2/27/2025
	31,500	40,500(17)	—	6.68	3/31/2026
	18,000	18,000(18)	—	6.68	3/31/2026
	—	88,000(19)	—	4.05	1/27/2027

- (1) Under the terms of Mr. Hatfield’s option agreement, 25% of the shares vest on October 9, 2018 and the remaining shares will vest in 36 equal monthly installments through October 9, 2021.
- (2) Under the terms of Mr. Hatfield’s option agreement option awards vest and become exercisable based on the Company’s common stock price during the two years after the first anniversary of the date of grant as

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follows: 25% of shares subject to the option vest after the stock price is equal to or greater than \$10.00 per share for 20 consecutive trading days; and an additional 6.25% of the shares subject to the option vest for every additional \$2.50 in stock price above \$10.00 per share for 20 consecutive trading days. Options become exercisable upon completion of the three-year performance period.

- (3) Under the terms of Dr. Hughes' option agreement, 25% of the shares vested on December 19, 2013 and the remaining shares vested in equal installments and became fully vested on December 19, 2016.
- (4) Under the terms of Dr. Hughes' option agreement, 25% of the shares vested on March 17, 2016 and the remaining shares will vest in 36 equal monthly installments through March 17, 2019.
- (5) Under the terms of Dr. Hughes' option agreement, 25% of the shares vested on March 31, 2017 and the remaining shares will vest in 36 equal monthly installments through March 31, 2020.
- (6) Under the terms of Dr. Hughes' option agreement, 25% of the shares vested on March 31, 2017, 25% vested on September 30, 2017 and 50% vested on March 31, 2018.
- (7) Under the terms of Dr. Hughes' option agreement, 25% of the shares vested on January 27, 2018 and the remaining shares will vest in 36 equal monthly installments through January 27, 2021.
- (8) Under the terms of Dr. Hughes' option agreement, option awards vest and become exercisable based on the Company's common stock price during the two years after the first anniversary of the date of grant as follows: 25% of shares subject to the option vest after the stock price is equal to or greater than \$10.00 per share for 20 consecutive trading days; and an additional 6.25% of the shares subject to the option vest for every additional \$2.50 in stock price above \$10.00 per share for 20 consecutive trading days. Options become exercisable upon completion of the three-year performance period.
- (9) Under the terms of Dr. Kim's option agreement, 25% of the shares vested on September 5, 2012 and the remaining shares vested in equal installments and became fully vested on September 5, 2015.
- (10) Under the terms of Dr. Kim's option agreement, 25% of the shares vested on December 19, 2013 and the remaining shares vested in equal installments and became fully vested on December 19, 2016.
- (11) Under the terms of Dr. Kim's option agreement, 25% of the shares vested on February 27, 2016 and the remaining shares will vest in 36 equal monthly installments through February 27, 2019.
- (12) Under the terms of Dr. Kim's option agreement, 25% of the shares vested on March 31, 2017 and the remaining shares will vest in 36 equal monthly installments through March 31, 2020.
- (13) Under the terms of Dr. Kim's option agreement, 25% of the shares vested on March 31, 2017, 25% vested on September 30, 2017 and 50% vested on March 31, 2018.
- (14) Under the terms of Dr. Kim's option agreement, 25% of the shares vested on January 27, 2018 and the remaining shares will vest in 36 equal monthly installments through January 27, 2021.
- (15) Under the terms of Ms. Allen's option agreement, 25% of the shares vested on January 2, 2014 and the remaining shares vested in equal installments and became fully vested on January 2, 2017.
- (16) Under the terms of Ms. Allen's option agreement, 25% of the shares vested on February 27, 2016 and the remaining shares will vest in 36 equal monthly installments through February 27, 2019.
- (17) Under the terms of Ms. Allen's option agreement, 25% of the shares vested on March 31, 2017 and the remaining shares will vest in 36 equal monthly installments through March 31, 2020.
- (18) Under the terms of Ms. Allen's option agreement, 25% of the shares vested on March 31, 2017, 25% vested on September 30, 2017 and 50% vested on March 31, 2018.
- (19) Under the terms of Ms. Allen's option agreement, 25% of the shares vested on January 27, 2018 and the remaining shares will vest in 36 equal monthly installments through January 27, 2021.

### **Compensation Risk Assessment**

We believe that although a portion of the compensation provided to our executive officers and other employees is performance-based, our executive compensation program does not encourage excessive or unnecessary risk-taking. This is primarily due to the fact that our compensation programs are designed to encourage our executive officers and other employees to remain focused on both short-term and long-term strategic goals, in particular in connection with our pay-for-performance compensation philosophy. As a result, we do not believe that our compensation programs are reasonably likely to have a material adverse effect on the Company.

### **Rule 10b5-1 Sales Plans**

Our policy governing transactions in our securities by directors, officers and employees permits our officers, directors and certain other persons to enter into trading plans complying with Rule 10b5-1 under the Exchange Act. Generally, under these trading plans, the individual relinquishes control over the transactions once the trading plan is put into place. Accordingly, sales under these plans may occur at any time, including possibly before, simultaneously with, or immediately after significant events involving our company. All sales made by our executive officers were made pursuant to trading plans complying with Rule 10b5-1 under the Exchange Act.

### ***Compensation Committee Report***

The information contained in this report shall not be deemed to be (1) “soliciting material,” (2) “filed” with the SEC, (3) subject to Regulations 14A or 14C of the Exchange Act, or (4) subject to the liabilities of Section 18 of the Exchange Act. This report shall not be deemed incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent that we specifically incorporate it by reference into such filing.

The Compensation Committee reviewed and discussed the disclosure included in the Executive Compensation section of this Proxy Statement with management. Based on the review and discussions, the Compensation Committee recommended to the Board of Directors that the disclosure included in the Executive Compensation section be included in this Proxy Statement for the year ended December 31, 2017, for filing with the SEC.

### *THE COMPENSATION COMMITTEE*

Thomas O. Daniel, M.D., Chair  
John L. LaMattina, Ph.D.  
Cameron Geoffrey McDonough, M.D.

## DIRECTOR COMPENSATION

The following table sets forth a summary of the compensation we paid to our nonemployee directors during 2017. Mr. Hatfield, our Chief Executive Officer, and Dr. Hughes, our President and Chief Scientific Officer, receive no compensation for their service as directors, and, consequently, are not included in this table. The compensation received by Mr. Hatfield and Dr. Hughes as employees during 2017 are presented in the “Summary Compensation Table—2017 and 2016 Fiscal Years.”

Name	Fees earned or paid in cash (\$)	Option awards (\$)(1)(2)	Restricted stock awards (\$)(3)	Total (\$)
Peter Barrett, Ph.D.	—	116,408	—	116,408
Bruce Booth, Ph.D.	—	78,916	—	78,916
Thomas O. Daniel, M.D.	—	43,925	44,998	88,923
Frances K. Heller	42,500	43,925	—	86,425
John L. LaMattina, Ph.D.	—	43,925	47,497	91,422
Cameron Geoffrey McDonough, M.D.	—	83,916	—	83,916
Robert J. Perez	—	82,665	—	82,665
Frank E. Thomas	50,000	43,925	—	93,925

- (1) Amounts represent the aggregate grant-date fair value of option awards granted to our directors in 2017 computed in accordance with FASB ASC Topic 718. The assumptions used in the valuation of these awards are consistent with the valuation methodologies specified in the notes to our consolidated financial statements and discussions in “Management’s Discussion and Analysis of Financial Condition and Result of Operations,” included in our Annual Report on Form 10-K for the year ended December 31, 2017. The amounts above reflect our aggregate accounting expense for these awards and do not necessarily correspond to the actual value that will be recognized by the directors.
- (2) Each nonemployee director was granted an annual stock option grant in accordance with the non-employee director compensation policy for 14,500 shares on June 21, 2017, which vests upon the earlier of the first anniversary of the date of grant or the date of the 2018 annual meeting of stockholders. Dr. Barrett was granted an option for 24,864 shares of common stock in lieu of \$72,500 in fees, Dr. Booth was granted an option for 12,003 shares of common stock in lieu of \$35,000 in fees, Dr. McDonough was granted an option for 13,718 shares of common stock in lieu of \$40,000 in fees and Mr. Perez was granted an option for 13,289 shares of common stock in lieu of \$38,750 in fees. Each such option was granted on February 13, 2017, and vested on a quarterly basis over 2017.  
As of December 31, 2017, the aggregate number of outstanding vested and unvested stock option awards held by each nonemployee director was: Dr. Barrett, 63,364 shares; Dr. Booth, 50,503 shares; Dr. Daniel, 54,341 shares; Ms. Heller, 51,827 shares; Dr. LaMattina, 57,204 shares; Dr. McDonough, 71,525 shares; Mr. Perez, 63,789 shares; and Mr. Thomas, 51,827 shares.
- (3) Dr. Daniel and Dr. LaMattina were granted restricted stock awards for: 10,765 shares in lieu of \$45,000 in fees for serving on the Board of Directors and committees thereof and 11,363 shares in lieu of \$47,500 in fees for serving on the Board of Directors and committees thereof, respectively, on February 13, 2017, each of which vested on a quarterly basis over 2017.

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Our Board of Directors has adopted a nonemployee director compensation policy that is designed to provide a total compensation package that enables us to attract and retain, on a long-term basis, high caliber nonemployee directors. Under the policy, all nonemployee directors will be paid compensation as set forth below:

	<b>Annual Retainer</b>
<b>Board of Directors:</b>	
All nonemployee members (including Chairman of the Board of Directors)	\$ 35,000
Chairman of the Board of Directors	\$ 30,000
<b>Audit Committee:</b>	
Chairman	\$ 15,000
Non-Chairman members	\$ 7,500
<b>Compensation Committee:</b>	
Chairman	\$ 10,000
Non-Chairman members	\$ 5,000
<b>Nominating and Corporate Governance Committee:</b>	
Chairman	\$ 7,500
Non-Chairman members	\$ 3,750

Under the nonemployee director compensation policy, each person who is initially appointed or elected to the Board of Directors will be eligible for an option grant to purchase up to 29,000 shares of our common stock under the 2014 Stock Option and Incentive Plan on the date he or she first becomes a nonemployee director, which will vest monthly over a three-year period. In addition, on the date of the annual meeting of stockholders, each continuing nonemployee director who has served on the Board of Directors for a minimum of six months will be eligible to receive an annual option grant to purchase up to 14,500 shares of our common stock, which will vest in full upon the earlier of the first anniversary of the date of grant or the date of the following annual meeting of stockholders. All of the foregoing options will be granted at fair market value on the date of grant. All of the foregoing option grants will become immediately exercisable upon the death or disability of the applicable director, or upon a change in control of the company.

Each nonemployee director shall have the right to elect to receive all or a portion of his or her annual director compensation under the nonemployee director compensation policy in the form of either cash, restricted common stock based on the closing price of the stock on the date of grant, or stock options to purchase our common stock based on the Black-Scholes option-pricing model as of the date of grant. Any such election will be made before the start of our fiscal year and with any such stock options or restricted common stock elected by the directors to vest over a period of one year on a quarterly basis in arrears, with stock options to expire ten years from the date of grant.

### HOUSEHOLDING OF PROXY MATERIALS

Some banks, brokers, and other nominee record holders may be participating in the practice of “householding” proxy statements and annual reports. This means that only one copy of the Notice of Internet Availability of Proxy Materials, Proxy Statement and Annual Report on Form 10-K for the year ended December 31, 2017, is being delivered to stockholders sharing an address unless we have received contrary instructions. We will promptly deliver a separate copy of any of these documents to you if you write to us at 175 Portland Street, 4th Floor, Boston, MA 02114, Attention: Secretary or call us at (617) 622-4003. If you want to receive separate copies of the Notice of Internet Availability of Proxy Materials, Proxy Statement, or Annual Report on Form 10-K for the year ended December 31, 2017, in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address or telephone number.

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**ZAFGEN, INC.**  
**175 PORTLAND STREET, 4TH FLOOR**  
**BOSTON, MA 02114**

**VOTE BY INTERNET - [www.proxyvote.com](http://www.proxyvote.com)**

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the 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.

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

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**ZAFGEN, INC.**  
**Annual Meeting of Stockholders**  
**June 6, 2018, 8:30 AM**  
**This proxy is solicited by the Board of Directors**

The stockholder(s) hereby appoint(s) Jeffrey S. Hatfield and Patricia L. Allen, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this proxy, all of the shares of common stock of ZAFGEN, INC. that the stockholder(s) is entitled to vote at the Annual Meeting of Stockholders to be held at 8:30 AM, ET on June 6, 2018, at the offices of Goodwin Procter at 100 Northern Avenue, Boston, Massachusetts 02210, and any adjournments or postponements thereof.

**This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.**