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

SCHEDULE 14A

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

Filed by the Registrant ☒

Filed by a Party other than the Registrant ☐

Check the appropriate box:

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

VIVUS, INC.

(Name of Registrant as Specified In Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

- ☒ No fee required.
- ☐ Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies: _____
 - (2) Aggregate number of securities to which transaction applies: _____
 - (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined): _____
 - (4) Proposed maximum aggregate value of transaction: _____
 - (5) Total fee paid: _____
- ☐ Fee paid previously with preliminary materials.
- ☐ Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
 - (1) Amount Previously Paid: _____
 - (2) Form, Schedule or Registration Statement No.: _____
 - (3) Filing Party: _____
 - (4) Date Filed: _____

VIVUS, INC.
900 E. Hamilton Avenue, Suite 550
Campbell, CA 95008

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To be held on June 5, 2019

TO OUR STOCKHOLDERS:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of VIVUS, Inc., a Delaware corporation, (sometimes referred to herein as the Company), will be held on Wednesday, June 5, 2019, at 8:00 a.m., local time, at the offices of Weil, Gotshal & Manges LLP, 767 Fifth Avenue, New York, New York 10153 for the following purposes:

1. To elect nine directors to serve until the next annual meeting of stockholders or until their successors are duly elected and qualified.
2. To approve, on a non-binding advisory basis, the compensation of our named executive officers.
3. To ratify the appointment of OUM & Co. LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019.
4. To approve an amendment to the 2018 Equity Incentive Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 600,000 shares.
5. To approve an amendment to the 1994 Employee Stock Purchase Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 400,000 shares.
6. To transact such other business as may properly come before the meeting or any adjournment or postponement thereof.

The foregoing items of business are more fully described in the Proxy Statement accompanying this Notice. To help conserve resources and reduce printing and distribution costs, we will be mailing a Notice of Internet Availability of Proxy Materials to our stockholders, with instructions on how to access our Proxy Materials over the Internet, including this Notice, the Proxy Statement and our 2018 Annual Report. The Notice of Internet Availability of Proxy Materials will also contain instructions on how each of those stockholders can receive a paper copy of our Proxy Materials. We expect to mail the Notice of Internet Availability of Proxy Materials on or about April 23, 2019. We intend to mail this Notice, the Proxy Statement and our 2018 Annual Report, together with a Proxy Card, to those stockholders entitled to vote at the Annual Meeting who have properly requested paper copies of such materials, within three business days of such request. Brokers and other nominees who hold shares on behalf of beneficial owners will be sending their own similar Notice of Internet Availability of Proxy Materials. Only stockholders of record at the close of business on April 10, 2019 are entitled to notice of and to vote at the Annual Meeting.

By order of the Board of Directors



John P. Amos
Chief Executive Officer

Campbell, California
April 17, 2019

YOUR VOTE IS IMPORTANT

ALL STOCKHOLDERS ARE CORDIALLY INVITED TO ATTEND THE ANNUAL MEETING IN PERSON. HOWEVER, TO ENSURE YOUR REPRESENTATION AT THE ANNUAL MEETING, YOU ARE URGED TO VOTE BY TELEPHONE, BY THE INTERNET OR IF YOU RECEIVED PER YOUR REQUEST A PRINTED SET OF THE PROXY MATERIALS, BY COMPLETING, SIGNING, DATING AND RETURNING THE ENCLOSED PROXY CARD IN THE ACCOMPANYING POSTAGE-PAID ENVELOPE. ANY STOCKHOLDER ATTENDING THE ANNUAL MEETING MAY VOTE IN PERSON EVEN IF SUCH STOCKHOLDER HAS RETURNED A PROXY. PLEASE NOTE, HOWEVER, THAT IF YOUR SHARES ARE HELD OF RECORD BY A BANK, BROKER OR OTHER NOMINEE AND YOU WISH TO VOTE AT THE MEETING, YOU MUST OBTAIN A PROXY ISSUED IN YOUR NAME FROM THAT RECORD HOLDER.

Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting to Be Held on June 5, 2019. The Notice of Annual Meeting of Stockholders, the Proxy Statement and our 2018 Annual Report are available electronically at www.edocumentview.com/VVUS. You are encouraged to access and review all of the important information contained in the Proxy Materials before voting.

References throughout the Proxy Materials to the number of shares and per share price of our Common Stock have been adjusted for the 1-for-10 reverse stock split effected on September 10, 2018.

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VIVUS, INC.
PROXY STATEMENT FOR THE 2019
ANNUAL MEETING OF STOCKHOLDERS

GENERAL INFORMATION CONCERNING THE ANNUAL MEETING

The enclosed Proxy is solicited on behalf of the Board of Directors (the "**Board**") of VIVUS, Inc., a Delaware corporation (the "**Company**"), for use at our Annual Meeting of Stockholders (the "**Annual Meeting**") to be held on June 5, 2019, at 8:00 a.m. (local time), or at any adjournment or postponement thereof, for the purposes set forth herein and in the accompanying Notice of Annual Meeting of Stockholders. The Annual Meeting will be held at the offices of Weil, Gotshal & Manges LLP, 767 Fifth Avenue, New York, New York 10153.

We have elected to provide access to the Notice of Annual Meeting of Stockholders, this Proxy Statement and our 2018 Annual Report (collectively, the "**Proxy Materials**") over the Internet. Accordingly, we will be mailing a Notice of Internet Availability of Proxy Materials, as applicable, to our stockholders, with instructions on how to access our Proxy Materials over the Internet. The Notice of Internet Availability of Proxy Materials will also contain instructions on how each of those stockholders can receive a paper copy of our Proxy Materials. We expect to mail the Notice of Internet Availability of Proxy Materials on or about April 23, 2019. We intend to mail the Proxy Materials, together with a Proxy Card, to those stockholders entitled to vote at the Annual Meeting who have properly requested paper copies of such materials, within three business days of such request. Brokers and other nominees who hold shares on behalf of beneficial owners will be sending their own similar Notice of Internet Availability of Proxy Materials.

Our principal executive office is located at 900 E. Hamilton Avenue, Suite 550, Campbell, CA 95008. Our telephone number is (650) 934-5200. Our website is www.vivus.com. We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, proxy statements and other information filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), with the Securities and Exchange Commission (the "**SEC**"), available, free of charge, on our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC.

QUESTIONS AND ANSWERS ABOUT THE PROXY MATERIALS AND
OUR 2019 ANNUAL MEETING OF STOCKHOLDERS

Q: Why am I receiving these materials?

A: The Board is providing these Proxy Materials to you in connection with our Annual Meeting, which will take place on June 5, 2019. As a stockholder of record or beneficial holder as of the close of business on April 10, 2019 (the "**Record Date**"), you are invited to attend the Annual Meeting and are entitled to, and requested to, vote your shares on the proposals described in this Proxy Statement.

Q: What information is contained in these materials?

A: The information included in this Proxy Statement relates to the proposals to be voted on at the Annual Meeting, the voting process, the compensation of our named executive officers and our directors, and certain other required information. The Proxy Materials include our 2018 Annual Report, which includes our audited consolidated financial statements.

Q: What proposals will be voted on at the Annual Meeting?

A: There will be five proposals presented to the stockholders for consideration at the Annual Meeting:

- the election to the Board of nine director nominees (Proposal No. 1);
- the approval of a non-binding advisory resolution on the compensation of our named executive officers (Proposal No. 2);
- the ratification of the appointment of OUM & Co. LLP ("**OUM**") as the independent registered public accounting firm of the Company for the fiscal year ending December 31, 2019 (Proposal No. 3);
- the approval of an amendment to the 2018 Equity Incentive Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 600,000 shares (Proposal No. 4); and
- the approval of an amendment to the 1994 Employee Stock Purchase Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 400,000 shares (Proposal No. 5).

Q: How does the Board recommend I vote on these proposals?

A: Our Board recommends that you vote your shares:

- "**FOR**" all nine of the Board's director nominees named in this Proxy Statement (Proposal No. 1);
- "**FOR**" the proposal regarding the non-binding advisory approval of the compensation of our named executive officers (Proposal No. 2);
- "**FOR**" the ratification of the appointment of OUM as our independent registered public accounting firm (Proposal No. 3);
- "**FOR**" the approval of an amendment to the 2018 Equity Incentive Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 600,000 shares (Proposal No. 4); and
- "**FOR**" the approval of an amendment to the 1994 Employee Stock Purchase Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 400,000 shares (Proposal No. 5).

Q: Who is entitled to vote?

A: Stockholders of record at the close of business on April 10, 2019, the Record Date, are entitled to notice of and to vote at the Annual Meeting.

Q: How many shares can vote?

A: At the Record Date, approximately 10,637,164 shares of our Common Stock were issued and outstanding and held of record by approximately 2,350 stockholders. At the Record Date, we did not have any shares of Preferred Stock outstanding.

Q: What shares can I vote?

A: You may vote all of the VIVUS shares owned by you as of the close of business on the Record Date. Each stockholder is entitled to one vote for each share held as of the Record Date on all

matters presented at the Annual Meeting. Stockholders will not be entitled to cumulate their votes in the election of directors.

A list of stockholders entitled to vote at the Annual Meeting will be available during ordinary business hours at 900 E. Hamilton Avenue, Suite 550, Campbell, CA 95008 for a period of at least 10 days prior to the Annual Meeting.

Q: What is the difference between a "beneficial holder" and a "stockholder of record"?

A: Whether you are a "beneficial holder" or a "stockholder of record" with respect to your shares depends on how you hold your shares:

- **Beneficial Holders:** Most stockholders hold their shares through a broker, bank or other nominee (that is, in "street name") rather than directly in their own names. If you hold shares in street name, you are a "beneficial holder" of those shares, and the Notice of Internet Availability of Proxy Materials or a printed set of the Proxy Materials, as applicable, will be forwarded to you by your broker, bank or other nominee. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account.
- **Stockholders of Record:** If you hold shares directly in your name with our transfer agent, Computershare Trust Company, N.A., you are considered the "stockholder of record" with respect to those shares, and the Notice of Internet Availability of Proxy Materials or a printed set of the Proxy Materials, as applicable, will be sent directly to you by us.

Q: Can I attend the Annual Meeting? What do I need for admission?

A: You are entitled to attend the Annual Meeting if you were a stockholder of record or a beneficial holder as of the close of business on the Record Date, or if you hold a valid legal proxy for the Annual Meeting.

If you are a stockholder of record, your name will be verified against the list of stockholders of record prior to your being admitted to the Annual Meeting. You should be prepared to present government-issued photo identification for admission. If you are a beneficial holder, you will need to provide proof of beneficial ownership on the Record Date, such as a brokerage account statement showing that you owned our stock as of the Record Date, a copy of the Voting Instruction Form provided by your broker, bank or other nominee, a legal proxy or other similar evidence of ownership as of the Record Date, as well as your government-issued photo identification, for admission. If you do not provide proper photo identification or comply with the other procedures outlined above upon request, you may not be admitted to the Annual Meeting.

You may obtain directions to the Annual Meeting by contacting our Corporate Secretary via email at corporatesecretary@vivus.com, via telephone at 650-934-5200, via fax at 650-934-5389 or via mail to VIVUS, Inc., 900 E. Hamilton Avenue, Suite 550, Campbell, CA 95008, Attention: Corporate Secretary.

Q: How can I vote my shares in person at the Annual Meeting?

A: If you are a stockholder of record, you have the right to vote your shares in person at the Annual Meeting. If you choose to do so, you can vote using the ballot provided at the meeting or by submitting at the meeting the Proxy Card enclosed with the Proxy Materials you received. If you are a beneficial holder of our shares, and therefore not the stockholder of record, you may not vote those shares in person at the Annual Meeting unless you obtain a "legal proxy" from the

broker, bank or other nominee that holds your shares, giving you the right to vote the shares at the meeting using the ballot provided at the meeting.

Even if you plan to attend the Annual Meeting, we recommend that you vote your shares in advance as described in the answer to the question immediately below so that your vote will be counted if you later decide not to attend the Annual Meeting.

Q: If I am a stockholder of record on the Record Date, how can I vote my shares without attending the Annual Meeting?

A: Even if you plan to attend the Annual Meeting, we recommend that you vote in advance of the Annual Meeting. You may vote in advance of the Annual Meeting by any of the following methods:

- **Vote by Mail.** If you are a stockholder of record (that is, if you hold our shares in your own name) and requested a paper set of the Proxy Materials, you may vote by completing, signing and dating the Proxy Card where indicated and by mailing or otherwise returning the Proxy Card in the envelope provided to you. You should sign your name exactly as it appears on the Proxy Card. If you are signing in a representative capacity (for example, as a guardian, executor, trustee, custodian, attorney or officer of a corporation), indicate your name and title or capacity. The Proxy Card should be returned in the envelope provided to you and **should be received by the Company before Wednesday, June 5, 2019.**
- **Vote by Internet or Telephone.** If you are a stockholder of record (that is, if you hold your shares in your own name), you may vote by the Internet by logging on to the website listed on the Notice of Internet Availability of Proxy Materials or the Proxy Card, entering your control number located on the Notice of Internet Availability of Proxy Materials or the Proxy Card and voting by following the on-screen prompts. You may also vote by telephone by calling the toll-free touchtone voting number listed on the Notice of Internet Availability of Proxy Materials or the Proxy Card, entering your control number located on the Notice of Internet Availability of Proxy Materials or the Proxy Card and following the touchtone prompts. If you vote by the Internet or by telephone, you do not need to return your Proxy Card to the Company. **Internet and telephone voting facilities will close at 11:59 p.m. (Eastern Time) on Tuesday, June 4, 2019 for the voting of shares held by stockholders of record.**

Your vote is important and we strongly encourage you to vote your shares by following the instructions provided on the Notice of Internet Availability of Proxy Materials or the Proxy Card. Please vote promptly.

Q: If my shares are registered in the name of a broker or other agent on the Record Date, how can I vote my shares without attending the Annual Meeting?

A: As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. If you requested a paper set of the Proxy Materials, you should have received a Voting Instruction Form with these Proxy Materials from that organization rather than from us. Simply complete and mail the Voting Instruction Form to ensure that your vote is counted. Alternatively, you may vote by telephone or over the Internet as instructed by your broker or bank, if applicable. To vote in person at the Annual Meeting, you must obtain a valid proxy from your broker, bank or other agent. Follow the instructions from your broker or bank included with these Proxy Materials, or contact your broker or bank to request a proxy form.

Q: What does it mean if I receive more than one Notice of Internet Availability of Proxy Materials, Proxy Card or Voting Instruction Form?

A: If you received more than one Notice of Internet Availability of Proxy Materials, Proxy Card or Voting Instruction Form, your shares are registered in more than one name or are registered in different accounts. Please follow the voting instructions included with **each** Notice of Internet Availability of Proxy Materials, Proxy Card and Voting Instruction Form to ensure that all of your shares are voted.

Q: How will my shares be voted if I do not provide specific voting instructions in the Proxy Card or Voting Instruction Form that I submit?

A: If you, as the stockholder of record, submit a Proxy Card without giving specific voting instructions on one or more matters listed in the Notice of Annual Meeting of Stockholders, then John P. Amos and John L. Slebir, the proxy holders designated by our Board (the "**Proxy Holders**"), who are executive officers of our Company, will vote your shares "**FOR**" the election of each of the director nominees in Proposal 1, "**FOR**" the advisory approval of our named executive officers' compensation, "**FOR**" the ratification of the selection of OUM as our independent registered public accounting firm for fiscal year 2019, "**FOR**" the approval of an amendment to the 2018 Equity Incentive Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 600,000 shares and "**FOR**" the approval of an amendment to the 1994 Employee Stock Purchase Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 400,000 shares, all as recommended by our Board on such matters.

If you, as the beneficial owner, mail in your Voting Instruction Form, but do not provide voting instructions, the broker or nominee may vote the shares with respect to matters that are considered to be "routine," but may not vote the shares with respect to "non-routine" matters. See "What effect do withheld votes, abstentions and broker non-votes have on the proposals?" below for more information concerning the effect of withheld votes, abstentions and broker non-votes.

Q: Can I change my vote or revoke my Proxy?

A: You may change your vote or revoke your Proxy at any time before your Proxy is voted at the Annual Meeting.

- If you are a stockholder of record, you may change your vote or revoke your Proxy by: (1) delivering to VIVUS, Inc., 900 E. Hamilton Avenue, Suite 550, Campbell, CA 95008, Attention: Corporate Secretary, a written notice of revocation of your Proxy; (2) submitting an authorized Proxy bearing a later date using one of the alternatives described above under "If I am a stockholder of record on the Record Date, how can I vote my shares without attending the Annual Meeting?"; or (3) attending the Annual Meeting and voting in person. Attendance at the meeting in and of itself, without voting in person at the meeting, will not cause your previously granted Proxy to be revoked.
- If you are a beneficial holder, you may change your vote by submitting new voting instructions to your broker, bank or other nominee or, if you have obtained a legal proxy from your broker, bank or other nominee giving you the right to vote your shares at the Annual Meeting, by attending the meeting and voting in person.

Please note that the submission of a later dated Proxy Card or Voting Instruction Form will revoke any Proxy or voting instructions you may have previously submitted by telephone, over the Internet or by mail.

Q: How many shares must be present or represented to conduct business at the Annual Meeting?

A: Holders of a majority of the outstanding shares entitled to vote must be present, in person or by Proxy, at the Annual Meeting in order to have the required quorum for the transaction of business. Votes cast by Proxy or in person at the Annual Meeting will be tabulated by the Inspector of Election, who will be a representative of Computershare Trust Company, N.A., to determine whether or not a quorum is present. Both abstentions and broker non-votes are counted for the purpose of determining the presence of a quorum. See "What effect do withheld votes, abstentions and broker non-votes have on the proposals?" below for more information concerning the effect of withheld votes, abstentions and broker non-votes.

Q: What if a quorum is not present at the Annual Meeting?

A: If the shares present, in person and by Proxy, at the Annual Meeting do not constitute the required quorum, the Annual Meeting may be adjourned to a subsequent date for the purpose of obtaining a quorum. If a quorum is initially present, the stockholders may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

Q: What vote is required to approve each of the proposals?

A: *Election of Directors.* Directors are elected by a plurality of the votes cast at the Annual Meeting (Proposal No. 1), meaning that the nine nominees receiving the most votes will be elected. Only votes cast "**FOR**" a nominee will be counted.

Other Proposals. The proposals regarding the non-binding advisory approval of the compensation of our named executive officers (Proposal No. 2), the ratification of the appointment of OUM as our independent registered public accounting firm (Proposal No. 3), the approval of an amendment to the 2018 Equity Incentive Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 600,000 shares (Proposal No. 4) and the approval of an amendment to the 1994 Employee Stock Purchase Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 400,000 shares (Proposal No. 5) each requires the affirmative vote of a majority of the shares present in person or represented by Proxy and entitled to vote on that proposal. Please note, however, that the proposals regarding the non-binding advisory approval of the compensation of our named executive officers and the ratification of the appointment of OUM are advisory only and will not be binding on the Company, the Board or any committee of the Board. The results of the votes on these two advisory proposals will be taken into consideration by the Company, the Board or the appropriate committee of the Board, as applicable, when making future decisions regarding these matters.

Q: What effect do withheld votes, abstentions and broker non-votes have on the proposals?

A: *Withheld Votes.* The nine nominees receiving the most "**FOR**" votes will be elected as directors. Withheld votes will be counted as present and entitled to vote for purposes of determining the presence of a quorum at the Annual Meeting, but will not be counted in determining the outcome of the election of directors.

Abstentions. Pursuant to Delaware law, abstentions are counted for purposes of determining both (i) the presence or absence of a quorum for the transaction of business and (ii) the total number of votes cast with respect to a proposal, other than the election of directors. We intend to treat abstentions in this manner. For all proposals other than the election of directors (Proposal No. 1), abstentions will have the same effect as a vote against the proposal. Abstentions will be counted as present and entitled to vote for purposes of determining the presence of a quorum at the Annual Meeting.

Broker Non-Votes. A broker is entitled to vote shares held for a beneficial holder on routine matters, such as the ratification of the appointment of OUM as the Company's independent registered public accounting firm for fiscal year 2019 (Proposal No. 3), without instructions from the beneficial holder of those shares. On the other hand, a broker is not entitled to vote shares held for a beneficial holder on certain non-routine items, such as the election of directors (Proposal No. 1), the non-binding advisory approval of the compensation of our named executive officers (Proposal No. 2), the approval of an amendment to the 2018 Equity Incentive Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 600,000 shares (Proposal No. 4) or the approval of an amendment to the 1994 Employee Stock Purchase Plan to increase the number of shares of Common Stock reserved for issuance thereunder by 400,000 shares (Proposal No. 5). **If you are a beneficial holder and want your vote to count on these non-routine proposals, it is critical that you instruct your broker how to vote your shares on these non-routine proposals.** Consequently, if you do not submit any voting instructions to your broker, your broker may exercise its discretion to vote your shares only on the proposal to ratify the appointment of OUM as our independent registered public accounting firm for fiscal 2019 (Proposal No. 3); your shares will constitute "broker non-votes" on each of the non-routine items; and your shares will not be counted in determining the number of shares necessary for approval of the non-routine items, although they will be counted for purposes of determining whether a quorum exists.

Q: What happens if additional matters are presented at the Annual Meeting?

A: If you grant a proxy, the Proxy Holders will have the discretion to vote your shares on any additional matters properly presented for a vote at the Annual Meeting.

Other than matters and proposals described in this Proxy Statement, we have not received valid notice of any other business to be acted upon at the Annual Meeting.

Q: Who will count the votes?

A: The Inspector of Election appointed for the Annual Meeting, who will be a representative of Computershare Trust Company, N.A., will separately tabulate the votes, as well as any abstentions and broker non-votes.

Q: Where can I find the voting results of the Annual Meeting?

A: We will report voting results by filing a Current Report on Form 8-K within three business days following the date of the Annual Meeting. If final voting results are not known when such report is filed, they will be announced in an amendment to such report within four business days after the final results become known.

Q: Who will bear the cost of soliciting votes for the Annual Meeting?

A: Our Board is soliciting Proxies for the Annual Meeting from our stockholders. We will bear the entire cost of soliciting Proxies, including the preparation, assembly, printing, and mailing of the Proxy Materials, and any additional solicitation material furnished to our stockholders. Copies of solicitation materials will be furnished to brokerage houses, fiduciaries and custodians holding shares in their names that are beneficially owned by others so that they may forward the solicitation materials to such beneficial owners, and we expect to reimburse the corresponding forwarding expenses. We have retained the services of Georgeson LLC to solicit Proxies, for which we estimate that we will pay a fee not to exceed \$15,000, plus reimbursement for out-of-pocket expenses. Proxies may also be solicited by certain of our directors, officers and regular employees, without additional compensation, by mail, facsimile, telephone, telegraph, Internet, in person and by advertisement.

Q: Are Proxy Materials for the 2019 Annual Meeting available electronically?

A: Yes. This Proxy Statement and our Annual Report on Form 10-K for fiscal year 2018 are available electronically at www.edocumentview.com/VVUS.

**PROPOSAL NO. 1:
ELECTION OF DIRECTORS**

Overview of Election of Directors

Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, as further amended, currently state that the number of directors that shall constitute the Board will be determined from time to time by resolution of the Board, but in no event shall the number be less than three. The Board has currently set the number of directors on the Board at nine. On the recommendation of our Nominating and Governance Committee, the Board has nominated the following nine directors: John P. Amos, Karen Ferrell, Edward A. Kangas, Thomas B. King, David Y. Norton, Jorge Plutzky, M.D., Eric W. Roberts, Herman Rosenman, and Allan L. Shaw for election as directors. All nine of the nominees are currently members of the Board.

Unless otherwise instructed, the Proxy Holders will vote the Proxies received by them for the nine nominees named above. In the event that any of our nominees is unable or declines to serve as a director at the time of the Annual Meeting, the persons named in this Proxy reserve the right, in their discretion, to vote for a substitute nominee designated by the Board. It is not expected that any of the nominees will be unable or will decline to serve as a director. In the event that additional persons are nominated for election as directors, the Proxy Holders intend to vote all Proxies received by them in such a manner as will assure the election of as many of the nominees listed below as possible.

All directors will hold office until the next annual meeting of stockholders or until their successors have been elected and qualified. There are no family relationships between any of our directors or executive officers.

Background to the Board's Recommendation in Favor of Our Nominees

We believe that each of our nine nominees has professional experience in areas relevant to our strategy and operations and offers experience, leadership and continuity at a critical time for our future. We also believe that our nominees have other attributes necessary to create an effective board of directors: high personal and professional ethics, integrity and values; vision and strategic perspective; experience with regulatory and government processes; practical judgment and excellent decision-making skills; the ability to devote the necessary time to serve on our Board and its committees and to work in a collaborative manner with other Board members; and a commitment to representing the interests of all our stockholders.

In addition, our seven independent directors, who comprise the majority of our Board, bring valuable experience and leadership in critical areas. Our independent directors serve significant roles on our Board committees. In light of their complementary experience, relevant expertise and diverse industry and educational backgrounds, these nominees provide the Board with the executive leadership necessary to lead us into the future.

More information regarding our Board nominees is set forth below.

Required Vote

Directors are elected by a plurality of votes cast at the election. This means that the nine nominees who receive the highest number of votes will be selected as directors. Brokers do not have discretionary authority to vote shares on this proposal without direction from the beneficial owner.

Therefore, broker non-votes will have no effect on the vote. You may not vote your shares cumulatively in the election of directors.

Board Recommendation

OUR BOARD UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" ALL OF THE BOARD'S NINE NOMINEES FOR DIRECTOR ON THE ENCLOSED PROXY CARD OR VOTING INSTRUCTION FORM.

Biographical Information for Nominees

The nominees, and certain information about them as of April 1, 2019, are set forth below.

<u>Name</u>	<u>Age</u>	<u>Position Held with the Company</u>	<u>First Became a Director</u>
John P. Amos	52	Chief Executive Officer and Director	2018
Karen Ferrell(1)	61	Director	2018
Edward A. Kangas(2)	74	Director	2018
Thomas B. King(1)(3)(4)	64	Director	2017
David Y. Norton(1)(2)(3)(4)	67	Chairman of the Board of Directors and Director	2013
Jorge Plutzky, M.D.(4)	60	Director	2013
Eric W. Roberts(3)(4)	55	Director	2015
Herman Rosenman(1)(2)(4)	71	Director	2013
Allan L. Shaw(4)	55	Director	2015

- (1) Member of the Audit Committee of the Board
- (2) Member of the Compensation Committee of the Board
- (3) Member of the Nominating and Governance Committee of the Board
- (4) Member of the Corporate Development Committee of the Board

John P. Amos has served as the Chief Executive Officer and as a director of the Company since April 30, 2018. Mr. Amos served as the Executive Chairman of Willow Biopharma Inc., a biopharmaceutical company, from May 2017 to April 2018 when it was acquired by us. He served as the Chief Executive Officer of ORIX Healthcare Capital LLC, a private equity and venture capital investment company, from October 2012 to April 2017. Mr. Amos served as the Operating Partner and Portfolio Company Board Member of BioVeda China Fund, a financial investment company, from February 2008 to October 2012. He served as the Chief Executive Officer and President of the Oncology Therapeutics Network (acquired by McKesson Corporation in November 2007), a physician services company, from June 2005 to November 2007 and was a special advisor to McKesson Corporation, a public healthcare services company, from November 2007 to May 2008. Mr. Amos served as the President of Oncology Therapeutics Network of Bristol Myers Squibb, a publicly traded biopharmaceutical company, from June 2003 to May 2005. He held executive roles in finance and technology in McKesson Corporation from March 1995 to April 2003. From 1991 to 2003, he served in the United States Air Force and the California Air National Guard in Tactical Fighter Operations. Mr. Amos has previously served on the board of directors of TD2, Navigating Cancer, CITIC Pharmaceuticals, Aesyntix Health, Prodigy Health, Apollo Health Street, Quinian Health, Oncology Therapeutics Network and Matawan Pharmaceuticals. Mr. Amos served as a member of the Scientific Advisory Board at MD Anderson Cancer Center Institute for Applied Cancer Science (IACS) and was a health policy advisor to Governor Jeb Bush's 2016 Presidential Campaign. He has been appointed as a Trustee of the Global Leadership Council of the University of California, Davis Foundation.

Mr. Amos has been named to the Information Week Top 500 CIO's twice and won the Frost and Sullivan Award for Corporate Innovation. He studied Economics at the University of California, Davis and has a B.S. in General Business from the University of the State of New York.

Mr. Amos' prior extensive executive level experience and his experience serving on several boards of directors brings essential experience to the Board needed for strategic planning, product development and commercialization and operations.

Karen Ferrell has served as a director of the Company since October 26, 2018. Ms. Ferrell has served as the Executive Chairman and Chief Executive Officer of Glenridge HealthCare Solutions, a national tech-enabled network solutions company, since December 2015. From November 2014 to November 2015, Ms. Ferrell served as an independent healthcare consultant and advisor. She served as Chief Executive Officer of Zest Health, a digital consumer healthcare company, from September 2013 to October 2014. Ms. Ferrell served as President and Chief Executive Officer of Apollo Health Street, a healthcare solutions company, from May 2010 to March 2013. An involuntary bankruptcy petition was filed against Apollo Health Street in 2012; the petition was determined to be filed without merit and was subsequently dismissed. She served as Senior Vice President of Provider Contracting and Medical Management of CIGNA Healthcare, a worldwide health services organization, from November 2003 to March 2009. Ms. Ferrell served as a Senior Manager at Deloitte Consulting, a global consulting firm, from February 2000 to November 2003. Prior to this, Ms. Ferrell held leadership positions including President of Aetna Healthplans of Florida, Executive Director at Scripps Health and Vice President of Provider Contracting at Prudential HealthCare. Ms. Ferrell also serves as a director of Alacura, a medical transportation benefit management company, Advantum, a healthcare solutions company, and Glenridge HealthCare Solutions. Ms. Ferrell received an M.B.A. from Pepperdine University.

Ms. Ferrell's qualifications as a director include her senior executive level healthcare services experience and her experience serving on several boards of directors.

Edward A. Kangas has served as a director of the Company since October 26, 2018. Mr. Kangas served as Global Chairman and Chief Executive Officer of Deloitte, an international public accounting and consulting firm, from 1989 until his retirement in 2000. He also served as the Managing Partner of Deloitte & Touche (USA) from 1989 to 1994. He was elected Managing Partner and Chief Executive Officer of Touche Ross in 1985, a position he held through 1989. Mr. Kangas began his career as a staff accountant at Touche Ross in 1967, where he became a Partner in 1975. Since 2003, he has served as a director of Hovnanian Enterprises, Inc., a publicly traded real estate company, and Tenet Healthcare Corporation, a publicly traded healthcare services company. Since 2013, he has served as a director of Intelsat S.A., a satellite service provider and a foreign private issuer with the Securities and Exchange Commission. He has served as Chairman of the Board of Deutsche Bank USA Corp., a privately held subsidiary of Deutsche Bank AG, since 2016. He formerly served as a director of Electronic Data Systems (2004 to 2009), Allscripts Healthcare Solutions, Inc. (2009 to 2011), Eclipsys Corporation (2005 to 2009), Intuit Inc. (2007 to 2016) and United Technologies Corporation (2009 to 2018). In addition, he is a past Chairman of the Board of the National Multiple Sclerosis Society. He is also a member of Beta Gamma Sigma Directors' Table and a life trustee of the board of trustees of the Kansas University Endowment Association. In 2010, Mr. Kangas was named by the National Association of Corporate Directors (NACD) to its Directors Hall of Fame. Mr. Kangas received a B.A. in business administration and an M.B.A. from the University of Kansas. Mr. Kangas is a Certified Public Accountant.

Mr. Kangas' qualifications as a director include his extensive leadership experience, including as Chairman and Chief Executive Officer of an international public accounting and consulting firm, and his experience serving on several boards of directors.

Thomas B. King has served as a director of the Company since May 24, 2017. Mr. King served as the interim Chief Executive Officer of the Company from December 31, 2017 to April 30, 2018 and as

interim President of the Company from April 30, 2018 to May 30, 2018. He has served as an independent biotechnology consultant and advisor since August 2016. Previously, Mr. King served as President, Chief Executive Officer and a member of the board of directors of Alexza Pharmaceuticals, Inc., a publicly traded pharmaceutical company, from June 2003 to August 2016. From October 2015 to August 2016, Mr. King also served as Chief Financial Officer and Chief Accounting Officer of Alexza Pharmaceuticals, Inc. From September 2002 to April 2003, Mr. King served as President, Chief Executive Officer and a member of the board of directors of Cognetix, Inc., a privately held biopharmaceutical development stage company. From January 1994 to February 2001, Mr. King held various senior executive positions at Anesta Corporation, a publicly traded pharmaceutical company, including President and Chief Operating Officer from January 1995 to January 1997 and President and Chief Executive Officer from January 1997 to October 2000, and was a member of the board of directors from January 1995 until it was acquired by Cephalon, Inc., a publicly traded biopharmaceutical company. Mr. King currently serves on the board of directors of Concentric Analgesics, Inc., Faraday Pharmaceuticals, Inc. and Satsuma Pharmaceuticals, Inc., all privately held biotechnology companies. Mr. King also serves as a mentor at SPIRE Bioventures, a multi-disciplinary international consortium aiding biotechnology entrepreneurs, and as an Advisory Board Member of the University of Colorado BioFrontiers Institute. Mr. King received a B.A. in chemistry from McPherson College and an M.B.A. from the University of Kansas Graduate School of Business.

Mr. King's qualifications as a director include his extensive leadership experience in the pharmaceutical and biopharmaceutical industry, including experience with small and large development stage pharmaceutical companies, and his experience serving on several boards of directors of both public and private companies.

David Y. Norton has served as a director of the Company since July 19, 2013 and as Chairman of the Board of Directors since September 12, 2014. From February 2012 until July 2012, Mr. Norton served as Interim CEO of Savient Pharmaceuticals Inc., a pharmaceutical company that filed for Chapter 11 bankruptcy in October 2013. Until his retirement in September 2011, Mr. Norton was Company Group Chairman, Global Pharmaceuticals for Johnson & Johnson, a public healthcare company. In this position he was responsible for leading and developing the strategic growth agenda, including the strategy for licensing, acquisitions and divestments, and ensuring alignment with its global strategic functions, research and development and commercial organizations. Mr. Norton began his Johnson & Johnson career in 1979, and held a number of positions at the company, including Company Group Chairman, Worldwide Commercial and Operations for the CNS, Internal Medicine franchise from 2006 to 2009, Company Group Chairman for the pharmaceutical businesses in Europe, the Middle East and Africa from 2004 to 2006, and Company Group Chairman for the pharmaceutical businesses in North America from 2003 to 2004. He also serves as a director of the Global Alliance for TB Drug Development, a non-profit organization dedicated to the discovery and development of new, faster-acting and affordable tuberculosis medicines, and as a director of Mallinckrodt plc, a specialty pharmaceutical company. Mr. Norton previously served as a director of INC Research Holdings, Inc., a public global contract research organization, from February 2015 to August 2017 and as Chairman of the Board from May 2016 to August 2017. He also previously served as a director of Savient Pharmaceuticals Inc. from October 2011 until December 2013, a Senior Advisor to Tapestry Networks, a member of the board of directors of the Alliance for Aging Research, a member of the board of directors of the Pharmaceutical Research and Manufacturers of America, a committee member of the Australian Pharmaceutical Manufacturers Association, and a member and previous Chairman of the board of directors of the American Foundation for Suicide Prevention. Mr. Norton is a graduate of Control Data Institute, Australia and the College of Distributive Trades, United Kingdom.

Mr. Norton's qualifications as a director include his extensive global commercial experience at the executive level in the pharmaceutical and biotechnology industry and his experience serving on several boards of directors, including as Chairman of the board of a public pharmaceutical company.

Jorge Plutzky, M.D. has served as a director of the Company since May 9, 2013. Since 1996, Dr. Plutzky has served as the Director of The Vascular Disease Prevention Program, which includes the Lipid/Prevention Clinic, in the Cardiovascular Medicine Division at Brigham and Women's Hospital, where he is also Director of Preventive Cardiology. Since 1995, he has been on the faculty at Harvard Medical School and has directed a basic science laboratory focused on transcriptional mechanisms involved in adipogenesis, lipid metabolism, and diabetes, and their relationship to inflammation and atherosclerosis. Throughout his career, Dr. Plutzky has also been involved in translational clinical studies investigating links between metabolic disorders and cardiovascular disease. Dr. Plutzky has been a member of the scientific advisory boards of the Sarnoff Cardiovascular Research Foundation since 2009 and Ember Therapeutics since 2012. Dr. Plutzky has been elected to the American Society for Clinical Investigation and is a Fellow of the American College of Cardiology. Dr. Plutzky's papers have appeared in journals that include *Science*, *PNAS*, *Diabetes*, *Lancet*, *Annals of Internal Medicine*, and *Nature Medicine*. Dr. Plutzky has been involved with the U.S. Food and Drug Administration, serving both as a member of the Endocrinologic and Metabolic Drugs Advisory Committee and in advising and presenting for new drug application sponsors. He has been involved with both the American Heart Association and the American Diabetes Association. Dr. Plutzky has been recognized with the Eugene Braunwald Teaching Award, the University of Cologne's Klenk Lecture, Vanderbilt University's Rabin Lecture, Northwestern University's DeStevens Lecture and Harvard Medical School's Tucker Collins Lecture. Dr. Plutzky served on the board of directors of Novilion Therapeutics Inc. (which acquired Aegerion Pharmaceuticals, Inc.), a publicly traded biopharmaceutical company, from April 2015 to August 2017. Dr. Plutzky holds a B.A. from the University of Virginia, where he was an Echols Scholar and a member of Phi Beta Kappa, and an M.D. from the University of North Carolina, Chapel Hill. He completed research fellowships at the National Institutes of Health and the Massachusetts Institute of Technology.

Dr. Plutzky's clinical background, medical knowledge, and science expertise in the prevention and treatment of cardiometabolic disease brings valuable and unique insight to the Board as evaluation, development and commercialization of our current and potential future products proceed.

Eric W. Roberts has served as a director of the Company since September 15, 2015. Since January 2012, Mr. Roberts has been a founding Managing Director of Valence Life Sciences, LLC, a life sciences venture capital firm. From 2004 to 2012, Mr. Roberts was a founding Managing Director of Caxton Advantage Venture Partners, an investment firm. From 1986 to 2004, Mr. Roberts served in a variety of roles as an investment banker, including as Managing Director, Partner and Founder of the Life Sciences Department at Dillon, Read & Co. Inc., an investment bank which merged to become UBS AG, and Managing Director and Co-Head of the Global Healthcare Investment Banking Group at Lehman Brothers, a former global services financial firm. Mr. Roberts currently serves on the board of directors of Invuity, Inc., a publicly traded medical technology company. He also served on the board of directors of Gemin X Pharmaceuticals, Inc., a biotechnology company, from 2007 through its sale to Cephalon, Inc. (now Teva Pharmaceutical Industries Ltd.) in 2011. Mr. Roberts holds a B.S. in economics from the Wharton School of the University of Pennsylvania.

Mr. Roberts' qualifications as a director include his extensive experience as an investment banker and venture capitalist in the healthcare industry and his broad healthcare industry knowledge.

Herman Rosenman has served as a director of the Company since July 19, 2013. Mr. Rosenman was Chief Financial Officer of Natera, Inc., a publicly traded diagnostics company, from February 2014 to January 2017. Prior to this, Mr. Rosenman was Senior Vice President, Finance and Chief Financial Officer of Gen-Probe, Inc. (currently, Hologic, Inc.), a molecular diagnostic company, from June 2001 to October 2012. Prior to joining Gen-Probe in 2001, Mr. Rosenman was President and Chief Executive Officer of Ultra Acquisition Corp., a retail chain and consumer products manufacturer, from 1997 to 2000. In addition, he served as President and Chief Executive Officer of RadNet Management, Inc., a large healthcare provider, from 1994 to 1997, and as Executive Vice President and Chief Financial

Officer for Rexene Corp., a Fortune 1000 company in the petrochemicals industry. Mr. Rosenman was previously a partner at Coopers & Lybrand (currently, PricewaterhouseCoopers LLP), where he served numerous Fortune 1,000 clients, principally in the pharmaceuticals and telecommunications industries. Mr. Rosenman currently serves on the board of directors of Natera, Inc., Oxford Immunotec Global PLC, a publicly traded diagnostics company, and DermTech, Inc., a privately held genomics company. Mr. Rosenman also served on the board of directors of Discovery Partners International, Inc., from 2003 until its reverse-merger into Infinity Pharmaceuticals, Inc. in 2006, and thereafter Infinity Pharmaceuticals, Inc., where he served until 2007, as well as on the boards of directors of ARYx Therapeutics, Inc., from which he resigned in 2011, Emphasys Medical, Inc. and Medistem, Inc. (acquired by Intrexon Corp.). Mr. Rosenman received a B.B.A. in finance and accounting from Pace University and an M.B.A. in finance from the Wharton School of the University of Pennsylvania.

Mr. Rosenman's qualifications as a director include his experience in the biotechnology and pharmaceuticals industries, his extensive leadership experience as both a Chief Executive Officer and a Chief Financial Officer, his diverse industry background in companies ranging from large multinational corporations to start-ups, and his broad base of expertise with initial public offerings, mergers & acquisitions, turn-arounds and high growth companies.

Allan L. Shaw has served as a director of the Company since September 15, 2015. Mr. Shaw served as a consultant to the Company from February 1, 2018 to June 30, 2018. Since March 2017, he has served as an advisor and consulting Chief Financial Officer to a portfolio of biopharmaceutical companies. From January 2016 to February 2017, Mr. Shaw was the Chief Financial Officer and Treasurer of Syndax Pharmaceuticals, Inc., a publicly traded clinical stage biopharmaceutical company. Mr. Shaw was Managing Director of Alvarez & Marsal LLC, a global professional services firm, and led their biopharmaceutical consulting practice, from December 2011 to March 2015, and supported the firm on an ad hoc basis from March 2015 to October 2015. From 2009 to 2011, he served as the Chief Financial Officer of NewLead Holdings LTD., a publicly traded global shipping company. From 2005 to 2009, he was the founder and Senior Managing Director of Shaw Strategic Capital LLC, an international financial advisory firm, focused on providing strategic financial counsel on a wide variety of issues such as general corporate finance, mergers and acquisitions, capital structuring, licensing and capital markets. From 2002 to 2004, Mr. Shaw was the Chief Financial Officer of Serono S.A., a publicly traded global biotechnology company, and from 1994 to 2001, he was the Chief Financial Officer of Viatel, Inc., a publicly traded international communications company. Mr. Shaw serves on the board of directors of Edith & Carl Marks JCH of Bensonhurst, a non-profit organization. He also served on the board of directors of Akari Therapeutics, Plc. from 2013 to 2016, the Central New York Biotech Accelerator (formerly Central New York—Biotech Research Center) from 2009 to 2013, NewLead Holdings LTD. from 2009 to 2011, Navios Maritime Holdings, Inc. from 2005 to 2010, Serono S.A. as an Executive Management Board Member from 2002 to 2004 and Viatel Inc. from 1996 to 2002. He has contributed to several corporate governance books and is a member of the American Institute of Certified Public Accountants, New York Society of Certified Public Accountants and Corporate Directors Group. Mr. Shaw received a B.S. from the State University of New York (Oswego College) and is a certified public accountant in the State of New York.

Mr. Shaw's qualifications as a director include his extensive leadership experience as a Chief Financial Officer, his diverse industry background in companies of ranging sizes, and his broad base of expertise with capital markets and operational expertise with a view toward corporate governance, risk management and leadership.

**PROPOSAL NO. 2:
NON-BINDING ADVISORY RESOLUTION ON THE COMPENSATION OF
OUR NAMED EXECUTIVE OFFICERS**

General

Our stockholders are afforded this advisory vote pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and related federal securities laws set forth at Section 14A of the Exchange Act. Although we describe this to be a solicitation of an advisory vote on the compensation for our named executive officers, it is more commonly known as "say-on-pay." In accordance with the results of the say-on-pay frequency vote held at our 2017 Annual Meeting of Stockholders, we currently hold say-on-pay votes on an annual basis, and, unless the Board modifies its determination on the frequency of future advisory say-on-pay votes, the next advisory say-on-pay vote will be held at our 2020 Annual Meeting of Stockholders. By way of this solicitation, stockholders may submit a non-binding advisory vote to approve the compensation of our named executive officers as discussed in the Compensation Discussion and Analysis section in this Proxy Statement and as summarized in the 2018 Summary Compensation Table in this Proxy Statement, which information provides an annual snapshot of the compensation paid or granted to our named executive officers.

Although it is non-binding, the Board and the Compensation Committee will review and carefully consider the voting results when evaluating our executive compensation program. Based in part on the outcome of the say-on-pay vote, our Board or Compensation Committee will determine whether any changes to the compensation program should be considered for our named executive officers. At the 2018 Annual Meeting of Stockholders, the stockholders did not approve, on an advisory basis, our 2017 executive compensation. Following our 2018 say-on-pay vote and after careful consideration, we reduced the number of equity awards granted to our then serving named executive officers, continued to integrate the changes to our senior management team in 2018 (including the hiring of a new Chief Executive Officer and a new President) with the goal of executing on our business strategy, changed the composition of the Board of Directors and changed the composition of the Compensation Committee in February 2019.

As discussed in the Compensation Discussion and Analysis section, the Compensation Tables and the related disclosures contained in this Proxy Statement, our compensation program is designed and implemented to attract, retain, reward and motivate our named executive officers while aligning their and our performance with the long-term interests of our stockholders. The Compensation Committee believes that our compensation program as designed and implemented through the use of a combination of base salary, cash bonus and equity compensation is effective to achieve these program goals for the following reasons:

- we attract and retain our named executive officers by providing an overall compensation package that is competitive in the market in which we compete through base salaries, cash bonuses and long-term equity awards based on corporate and individual performance;
- we share the risks and rewards of our business with our named executive officers;
- we align the interests of our named executive officers with the interests of our stockholders in particular through equity awards; and
- we compensate our named executive officers in a manner that is efficient and affordable for the Company.

We believe our executive compensation programs are designed in the best manner possible to support the Company and our short- and long-term business and financial objectives. Please review our Compensation Discussion and Analysis section, the accompanying Compensation Tables and the related disclosures on our 2018 compensation, which describe in more detail how our executive compensation

policies and procedures operate and are designed to drive stockholder value. We also urge you to read our Annual Report on Form 10-K for the year ended December 31, 2018, which describes our business and our 2018 financial results in more detail.

Required Vote

The affirmative vote of the holders of a majority of shares present and entitled to vote will be required to approve, on an advisory basis, the compensation of our named executive officers.

Board Recommendation

OUR BOARD UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE ADOPTION OF THE RESOLUTION APPROVING THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS, AS DESCRIBED IN THE COMPENSATION DISCUSSION AND ANALYSIS SECTION AND THE RELATED TABULAR AND NARRATIVE DISCLOSURE SET FORTH IN THIS PROXY STATEMENT.

Non-Binding Advisory Resolution

Our Board believes that the information provided above and within the "Executive Compensation" section of this Proxy Statement demonstrates that our executive compensation program was designed appropriately and is working to ensure that management's interests are aligned with our stockholders' interests to support long-term value creation.

In accordance with Section 14A of the Exchange Act, as a matter of good corporate governance, we are asking our stockholders to approve, on an advisory basis, the following resolution relating to the overall compensation of our named executive officers as set forth in this Proxy Statement:

"RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the Compensation Discussion and Analysis, Compensation Tables and narrative discussion, is hereby APPROVED."

PROPOSAL NO. 3: RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

General

The Board has selected OUM to audit our financial statements for the fiscal year ending December 31, 2019. The decision of the Board to appoint OUM was based on the recommendation of the Audit Committee of the Board (the "**Audit Committee**"). Before making its recommendation to the Board, the Audit Committee carefully considered OUM's qualifications as an independent registered public accounting firm and auditors. This included a review of the qualifications of the engagement team, the quality control procedures the firm has established, any issues raised by the most recent quality control review of the firm and its reputation for integrity and competence in auditing. The Audit Committee's review also included matters required to be considered under the SEC's Rules on Auditor Independence, including the nature and extent of non-audit services, to ensure that they will not impair the independence of the accountants. The Audit Committee was satisfied with OUM in all of these respects.

OUM audited our financial statements for the fiscal year ended December 31, 2018. OUM was first appointed by the Board in the fiscal year ended December 31, 2005. Representatives of OUM are expected to be present at the Annual Meeting and will have the opportunity to make a statement if they so desire and be available to respond to appropriate questions.

Required Vote

The affirmative vote of the holders of a majority of shares of Common Stock present and entitled to vote will be required to ratify the selection of OUM as our independent registered public accounting firm for fiscal year 2019. Stockholder ratification is not required by our Amended and Restated Bylaws, as further amended, or other applicable legal requirement. However, as a matter of good corporate practice, the Board is seeking stockholder ratification of its appointment of OUM as our independent registered public accounting firm for fiscal year 2019. In the event that the stockholders do not approve the selection of OUM, the appointment of the independent registered public accounting firm may be reconsidered by the Audit Committee. Even if the selection is ratified, the Audit Committee may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in the best interests of the Company and its stockholders.

Board Recommendation

OUR BOARD UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE RATIFICATION OF THE APPOINTMENT OF OUM & CO. LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2019.

Principal Accountant Fees and Services

The following table presents fees for professional services rendered by OUM for the audit of our annual financial statements for fiscal years 2018 and 2017 and fees billed for audit-related services, tax services and all other services rendered by OUM for these periods:

	2018	2017
Audit Fees(1)	\$ 566,460	\$ 436,726
Audit-Related Fees(2)	—	—
Tax Fees(3)	—	—
All Other Fees(4)	—	—
Total Fees	<u>\$ 566,460</u>	<u>\$ 436,726</u>

- (1) Audit Fees: This category consists of fees for the audit of our annual financial statements, review of the financial statements included in our quarterly reports on Form 10-Q and services that are normally provided by the independent auditors in connection with regulatory filings or engagements, and for attestation services related to Sarbanes-Oxley compliance for those fiscal years. This category also includes advice on audit and accounting matters that arose during, or as a result of, the audit or the review of interim financial statements.
- (2) Audit-Related Fees: There were no audit-related fees billed by OUM during these periods.
- (3) Tax Fees: There were no tax fees billed by OUM during these periods.
- (4) All Other Fees: There were no other fees billed by OUM during these periods.

Pre-Approval Policy and Procedures

The Audit Committee reviews and pre-approves all audit and non-audit services that may be provided by OUM as well as the fees charges by OUM for such services. In its pre-approval and review of non-audit service fees, the Audit Committee considers, among other factors, the possible effect of the performance of such services on the auditors' independence. Pre-approval is generally provided for up to one year, and the Audit Committee may periodically revise the amount and/or list of services that have received class pre-approval as necessary. The Audit Committee has delegated the authority to grant pre-approvals to the Audit Committee Chairman when the full Audit Committee is unable to do so. Such pre-approvals are then reviewed by the full Audit Committee at its next regular meeting. In 2018, all audit services were pre-approved and reviewed in accordance with our policy; in 2018, there were no non-audit services.

PROPOSAL NO. 4: APPROVAL OF AN AMENDMENT TO THE 2018 EQUITY INCENTIVE PLAN

The Board is seeking stockholder approval of an amendment to the 2018 Equity Incentive Plan (the "**2018 Plan**") to increase the number of shares of Common Stock reserved for issuance under the 2018 Plan by 600,000 shares to a new total of 1,353,375 shares. Other than the request to add more shares to the 2018 Plan, there were no additional amendments made to the 2018 Plan.

The Board and the Compensation Committee believe that equity awards are an important factor in attracting, motivating, and retaining qualified personnel who are essential to the success of the Company. The 2018 Plan provides a significant incentive by allowing employees and other service providers to receive or purchase shares of our Common Stock pursuant to equity awards granted under it.

Background of the Share Reserve Under the 2018 Plan

In determining the number of shares to be reserved under the 2018 Plan, the Board considered a number of factors, including the following:

- *Shares Available for Grant.* As of April 1, 2019, 167,146 shares remained available for grant under the 2018 Plan. As of the same date, no awards have been granted and no benefits or amounts under the 2018 Plan relating to the additional 600,000 shares to be reserved under the 2018 Plan have been received by, or allocated to, any individuals.
- *Awards Outstanding.* As of April 1, 2019, under the 2018 Plan there were: (i) 603,162 shares subject to outstanding options, with a weighted average exercise price of \$3.92 and a weighted average remaining term of 6.93 years, and (ii) no shares subject to outstanding restricted stock units. As of the same date, under the Company's 2018 Inducement Equity Incentive Plan (the "**Inducement Plan**"), there were: (i) 502,000 shares subject to outstanding options, with a weighted average exercise price of \$3.70 and a weighted average remaining term of 6.08 years, and (ii) no shares subject to outstanding restricted stock units. As of the same date, under the 2010 Equity Incentive Plan (the "**2010 Plan**") there were: (i) 1,763,653 shares subject to outstanding options, with a weighted average exercise price of \$26.97 and a weighted average remaining term of 4.40 years, and (ii) 88 shares subject to outstanding restricted stock units. As of the same date, under the 2001 Stock Option Plan (the "**2001 Plan**" and together with the 2018 Plan, the Inducement Plan, the 2010 Plan and 2001 Plan, the "**Equity Plans**") there were: (i) 9,176 shares subject to outstanding options, with a weighted average exercise price of \$88.07 and a weighted average remaining term of 0.79 years, and (ii) no shares subject to outstanding restricted stock units. As of the same date, under all of the Equity Plans, collectively, there were a total of (i) 2,877,991 shares subject to outstanding options, with a weighted average exercise

price of \$20.71 and a weighted average remaining term of 5.21 years, and (ii) 88 shares subject to outstanding restricted stock units.

- *Overhang.* As of April 1, 2019, our overhang is 21.0%. For this purpose we calculated overhang as (x) the sum of (i) 2,877,991 shares subject to outstanding options under the Equity Plans, plus (ii) 88 shares subject to outstanding restricted stock units under the Equity Plans, divided by (y) the sum of (a) 10,637,164, which is the total outstanding shares of our Common Stock as of April 1, 2019, plus (b) 2,878,079 shares underlying outstanding options and restricted stock units under the Equity Plans, plus (c) 167,146 shares available for grant under the 2018 Plan. Our 2001 Plan was terminated in June 2010 and therefore, no additional equity awards have been granted since the 2001 Plan's termination or will be granted under the 2001 Plan in the future. Our 2010 Plan was terminated upon the approval by our stockholders of the 2018 Plan and no additional equity awards have since been granted under the 2010 Plan.
- *Burn Rate.* Burn rate measures our usage of shares for the Equity Plans as a percentage of the total outstanding shares of our Common Stock. For 2018, 2017 and 2016, our burn rates were 10.89%, 5.54% and 5.58%, respectively. For 2018, our burn rate was 5.61% when excluding the equity inducement grants from April 2018 to Messrs. Amos, Oehrlein and Suh under our Inducement Plan granted in connection with the acquisition of the shares of Willow Biopharma Inc. The rates were calculated by dividing the number of options and restricted stock units as adjusted for stock volatility that were granted during the year by the weighted average number of shares outstanding during the year. Our average annual burn rate was 7.34% over this three year period. When excluding the equity inducement grants to Messrs. Amos, Oehrlein and Suh referenced above, our average annual burn rate of 5.58% over this three year period was within Institutional Shareholder Services Inc., or ISS, guidelines for the Pharmaceuticals, Biotechnology and Life Sciences Industry for Russell 3000 and Non-Russell 3000 companies.
- *Forecasted Grants.* The Board anticipates that the shares reserved under the 2018 Plan, based on currently projected share use, will be sufficient for the granting of equity awards under the 2018 Plan through approximately June 2020. The forecast is based on the expectations that through June 2020, (i) the Company would grant options and restricted stock units covering approximately 550,000 shares; and (ii) approximately 40,000 shares would be cancelled or forfeited under outstanding options and restricted stock units. The net grants (that is, grants less cancellations and forfeitures) during this period would be approximately 510,000 shares. As a result, we anticipate that we will be requesting additional shares under the 2018 Plan at the 2020 Annual Meeting of Stockholders. Despite the projected share use described above, future circumstances and business needs, such as higher than expected headcount increases, including officers to support growth in development or commercial activities or merger and acquisition activity, may result in a significant increase in projected options or restricted stock unit grants.

Summary of the 2018 Equity Incentive Plan

The following is a summary of the principal features of the 2018 Plan and its operation. This summary does not contain all of the terms and conditions of the 2018 Plan and is qualified in its entirety by reference to the 2018 Plan as set forth in *Appendix A*.

General

The purposes of the 2018 Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide incentives to individuals who perform services to the Company, and to promote the success of the Company's business. These incentives are provided through the grant of stock options, stock appreciation rights ("SARs"), restricted stock awards, restricted stock units, performance shares and performance units.

Authorized Shares

Upon stockholder approval of the 2018 Plan, and subject to adjustment upon certain changes in our capitalization as described in the 2018 Plan, the maximum aggregate number of shares of our Common Stock that will be available for issuance under the 2018 Plan will equal the sum of (i) 1,353,375 shares, which includes 603,375 shares that had been reserved but not issued pursuant to any awards granted under the 2010 Plan as of the date of stockholder approval of this Plan at the 2018 Annual Meeting, and (ii) any shares subject to stock options or similar awards granted under the 2010 Plan or 2001 Plan that expire or otherwise terminate without having been exercised in full and shares issued pursuant to awards granted under the 2010 Plan or 2001 Plan that are forfeited to or repurchased by the Company (up to a maximum of 1,897,382 shares pursuant to clause (ii)). Subject to adjustment upon certain changes in our capitalization as described in the 2018 Plan, the maximum number of shares that may be issued upon the exercise of incentive stock options granted under the 2018 Plan will be the foregoing sum, plus any additional shares that are returned to the 2018 Plan as described below to the extent permitted by Section 422 of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**"). Shares under the 2018 Plan may be authorized, but unissued, or reacquired Common Stock of the Company, except that shares that are reacquired by the Company on an established stock exchange or national market system on which our Common Stock is listed through the use of cash proceeds received by the Company from the exercise of options granted under the Equity Plans will not be added to the shares authorized for grant under the 2018 Plan.

Shares subject to awards of restricted stock, restricted stock units, performance shares and performance units (which are collectively referred to as "**Full Value Awards**") will count against the 2018 Plan's share reserve as 1.22 shares for each share subject to such award. If shares acquired pursuant to Full Value Awards are forfeited or repurchased by the Company and otherwise would return to the share reserve as described above, then 1.22 times the number of shares forfeited or repurchased will return to the share reserve under the 2018 Plan.

If an award granted under the 2018 Plan expires or becomes unexercisable without having been exercised in full or with respect to restricted stock units, performance shares and performance units granted under the 2018 Plan, is terminated due to failure to vest, the unpurchased or (for awards other than options and SARs) unissued shares subject to such award will become available for future grant or sale under the 2018 Plan (unless the 2018 Plan has terminated). Upon the exercise of SARs granted under the 2018 Plan that are settled in shares, the gross number of shares covered by the portion of the award exercised will cease to be available under the 2018 Plan. If shares issued pursuant to restricted stock, restricted stock units, performance shares or performance units granted under the 2018 Plan are repurchased by or forfeited to the Company due to failure to vest, such shares will become available for future grant under the 2018 Plan. Shares used to pay the exercise price or purchase price of an award granted under the 2018 Plan and/or to satisfy the tax withholding obligations of an award granted under the 2018 Plan will not remain available for issuance under the 2018 Plan. Payment of cash rather than shares pursuant to an award granted under the 2018 Plan will not result in reducing the number of shares available for issuance under the 2018 Plan.

Adjustments to Shares Subject to the 2018 Plan

In the event of any dividend or other distribution (whether in the form of cash, shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, exchange of shares or other securities of the Company, or other change in our corporate structure affecting our Common Stock, the Administrator (as defined below), in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the 2018 Plan, will adjust the number and class of shares that are reserved under the 2018 Plan, may be delivered under the 2018 Plan, and the number, class and price of shares covered by outstanding awards under the 2018 Plan. For example, in September 2018, we

enacted a 1-for-10 reverse stock split, and we adjusted the 2018 Plan share reserve and the number of shares subject to outstanding awards, including the purchase price relating thereto, if applicable, to reflect the same.

Administration

The 2018 Plan will be administered by the Board or a committee of individuals satisfying applicable laws appointed by the Board, including the Compensation Committee (the "**Committee**") of the Board (the "**Administrator**"). To make grants to certain officers and key employees of the Company, the members of the committee administering the 2018 Plan must qualify as "non-employee directors" under Rule 16b-3 of the Exchange Act.

Subject to the terms of the 2018 Plan, the Administrator has the sole discretion to select the employees, consultants, and directors who will receive awards, to determine the terms and conditions of awards, to modify or amend each award (subject to the restrictions of the 2018 Plan), including to accelerate vesting or waive forfeiture restrictions, and to interpret the provisions of the 2018 Plan and outstanding awards. Under the 2018 Plan, the Administrator cannot institute a program under which (i) outstanding options or SARs are surrendered or cancelled in exchange for awards of the same type (which may have higher or lower exercise prices and different terms), awards of a different type, and/or cash, (ii) participants would have the opportunity to transfer any outstanding awards granted under the 2018 Plan to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding options or SARs is reduced.

The Administrator may allow a participant to defer the receipt of payment of cash or delivery of shares that otherwise would be due to such participant. The Administrator may make rules and regulations relating to the 2018 Plan as well as establish sub-plans under the 2018 Plan for the purpose of satisfying applicable non-U.S. laws or qualifying for favorable tax treatment under applicable non-U.S. laws and may make all other determinations deemed necessary or advisable for administering the 2018 Plan. The Administrator's decisions, determinations and interpretations will be final and binding on all participants and other award holders and will be given the maximum deference permitted by applicable laws.

Eligibility

Awards may be granted to employees and consultants of the Company and any affiliate of the Company and members of the Board. Incentive stock options may be granted only to employees who, as of the time of grant, are employees of the Company or any parent or subsidiary corporation of the Company. As of April 1, 2019, the individuals eligible to participate in the 2018 Plan consisted of approximately 58 employees, including six executive officers, eight consultants and eight non-employee directors.

Stock Options

Each option granted under the 2018 Plan will be evidenced by a written or electronic agreement between the Company and a participant, specifying the number of shares subject to the option and the other terms and conditions of the option, consistent with the requirements of the 2018 Plan. The exercise price per share of each option may not be less than the fair market value of a share of our Common Stock on the date of grant, except in limited circumstances specified in Code Section 424(a). Any incentive stock option granted to a person who at the time of grant owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any parent or subsidiary corporation of the Company (a "**Ten Percent Stockholder**") must have an exercise price per share equal to at least 110% of the fair market value of a share of our Common Stock on the date of grant. The aggregate fair market value of the shares (determined on the grant date) covered by

incentive stock options that first become exercisable by any participant during any calendar year also may not exceed \$100,000. Generally, the fair market value of a share of our Common Stock is its closing sales price (or closing bid, if no sales were reported) as quoted on The Nasdaq Stock Market on the day of determination. On April 1, 2019, the closing price of a share of our Common Stock on The Nasdaq Stock Market was \$3.99 per share.

The 2018 Plan provides that the option exercise price may be paid, as determined by the Administrator, in cash, check, other shares of our Common Stock having a fair market value equal to the aggregate exercise price of the exercised shares, net exercise, consideration received under a broker-assisted (or other) cashless exercise program (whether through a broker or otherwise) that the Company implements in connection with the 2018 Plan, reduction in any Company liability to the participant, such other consideration and method of payment for the issuance of shares to the extent permitted by applicable laws, or by any combination of the foregoing methods. With respect to any specific option, the methods of payment of the option exercise price will be authorized by the Administrator and set forth in the applicable option agreement. An option will be deemed exercised when the Company receives the notice of exercise and full payment for the shares to be exercised, together with applicable tax withholdings. Options will be exercisable at such times or under such conditions as determined by the Administrator and set forth in the award agreement. The maximum term of an option will be specified in the award agreement, provided that the term will be no more than 10 years, and provided further that an incentive stock option granted to a Ten Percent Stockholder must have a term not exceeding 5 years.

The Administrator will determine and specify in each award agreement, and solely in its discretion, the period of exercisability following termination of service applicable to each option. In the absence of such a determination by the Administrator, the participant generally will be able to exercise his or her option (to the extent vested) for (i) three months following his or her termination for reasons other than death or disability, and (ii) 12 months following his or her termination due to disability or following his or her death while holding the option. An award agreement also may provide that if exercising an option following termination of a participant's service (other than upon death or disability) would result in liability under Section 16(b) of Exchange Act ("**Section 16(b)**"), then the option will terminate 10 days after the last date on which exercise would result in liability under Section 16(b), but no later than the option's maximum term. An award agreement also may provide that if exercising an option following termination of a participant's service (other than upon death or disability) would be prohibited solely due to a violation of registration requirements under the Securities Act of 1933, as amended, then the option will terminate three months after termination of the participant's service during which exercising the option would not violate such registration requirements, but no later than the option's maximum term.

Stock Appreciation Rights

A stock appreciation right gives a participant the right to receive the appreciation in the fair market value of our Common Stock between the date of grant of the award and the date of its exercise. Each stock appreciation right granted under the 2018 Plan will be evidenced by a written or electronic agreement between the Company and the participant specifying the exercise price and the other terms and conditions of the award, consistent with the requirements of the 2018 Plan. At the Administrator's discretion, the payment upon exercise of SARs may be in cash, shares of our Common Stock of equivalent value, or a combination of both. The exercise price per share of each stock appreciation right may not be less than the fair market value of a share of our Common Stock on the date of grant, except in limited circumstances specified in Code Section 424(a). Upon exercise of a stock appreciation right, the holder of the award will be entitled to receive an amount determined by multiplying (i) the difference between the fair market value of a share on the date of exercise over the exercise price by (ii) the number of exercised shares. The term of a stock appreciation right will be no

more than 10 years from the date of grant. The terms and conditions relating to the period of exercisability following termination of service with respect to options described above also apply to SARs.

Restricted Stock Awards

Awards of restricted stock are rights to acquire or purchase shares, which vest in accordance with the terms and conditions established by the Administrator in its sole discretion. Each restricted stock award granted will be evidenced by a written or electronic agreement between the Company and the participant specifying the number of shares subject to the award and the other terms and conditions of the award, consistent with the requirements of the 2018 Plan. Restricted stock awards may be subject to vesting conditions as the Administrator specifies, and the shares acquired may not be transferred by the participant until vested.

Unless otherwise provided by the Administrator, a participant will forfeit any shares of restricted stock as to which the restrictions have not lapsed as specified in the restricted stock award agreement. Unless the Administrator provides otherwise, participants holding restricted stock will have the right to vote the shares. The Administrator, in its sole discretion, generally may reduce or waive any restrictions and may accelerate the time at which any restrictions will lapse or be removed.

Restricted Stock Units

The Administrator may grant restricted stock units, which represent a right to receive shares of our Common Stock at a future date as set forth in the participant's award agreement. Each restricted stock unit granted under the 2018 Plan will be evidenced by a written or electronic agreement between the Company and the participant specifying the number of shares subject to the award and other terms and conditions of the award, consistent with the requirements of the 2018 Plan. Restricted stock units will result in a payment to a participant if the performance goals or other vesting criteria the Administrator may establish are achieved or the awards otherwise vest. Earned restricted stock units will be paid, in the sole discretion of the Administrator, in the form of cash, shares, or in a combination of both. The Administrator may establish vesting criteria in its discretion, which may be based on Company-wide, divisional, business unit or individual goals (including without limitation continued employment or service), applicable federal or state securities laws, or any other basis determined by the Administrator. After the grant of a restricted stock unit award, the Administrator, in its sole discretion, generally may reduce or waive any vesting criteria that must be met to receive a payout and may accelerate the time at which any restrictions will lapse or be removed. A participant will forfeit any unearned restricted stock units as of the date set forth in the restricted stock unit award agreement.

Performance Units and Performance Shares

Performance units and performance shares also may be granted under the 2018 Plan. Each award of performance shares or units granted under the 2018 Plan will be evidenced by a written or electronic agreement between the Company and the participant specifying any performance period and other terms and conditions of the award, consistent with the requirements of the 2018 Plan. Performance units and performance shares will result in a payment to a participant if any performance goals or other vesting criteria the Administrator may establish are achieved or the awards otherwise vest. Earned performance units and performance shares will be paid, in the sole discretion of the Administrator, in the form of cash, shares (which will have an aggregate fair market value equal to the earned performance units or shares at the close of the applicable performance period), or in a combination of both.

The Administrator may establish performance objectives in its discretion, which may be based on Company-wide, divisional, business unit or individual goals (including without limitation continued

employment or service), applicable federal or state securities laws, or any other basis determined by the Administrator. After the grant of a performance unit or performance share, the Administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such performance units or shares and accelerate the time at which any restrictions will lapse or be removed. Performance units will have an initial value established by the Administrator on or before the date of grant. Each performance share will have an initial value equal to the fair market value of a share of our Common Stock on the award's grant date. A participant will forfeit any performance shares or units that are unearned as of the date set forth in the award agreement.

Performance Awards

Awards under the 2018 Plan may be made subject to the attainment of performance goals relating to one or more business criteria and may provide for a targeted level or levels of achievement including: attainment of research and development milestones, bookings, business divestitures and acquisitions, cash flow, cash position, contract awards or backlog, customer renewals, customer retention rates from an acquired company, business unit or division, earnings (which may include earnings before interest and taxes, earnings before taxes and net earnings), earnings per share, expenses, gross margin, growth in stockholder value relative to the moving average of the S&P 500 Index or another index, internal rate of return, market share, net income, net profit, net sales, new product development, new product invention or innovation, number of customers, operating cash flow, operating expenses, operating income, operating margin, overhead or other expense reduction, product defect measures, product release timelines, productivity, profit, return on assets, return on capital, return on equity, return on investment, return on sales, revenue, revenue growth, sales results, sales growth, stock price, time to market, total stockholder return, and working capital. The performance goals may differ from participant to participant and from award to award, may be used to measure the performance of the Company as a whole or a business unit or other segment of the Company, or one or more product lines or specific markets and may be measured relative to a peer group or index. Any criteria used may be measured in absolute terms or in terms of growth, compared to other companies, measured against the market as a whole and/or according to applicable market indices, measured against the Company as a whole or a segment of the Company, and/or measured on a pre-tax or post-tax basis, if applicable. The Administrator will determine whether any significant element(s) will be included or excluded from any performance goals applicable to the award. In all other respects, performance goals will be calculated in accordance with the Company's financial statements, generally accepted accounting principles, or under a methodology established by the Administrator prior to issuance of an award and applied consistently with respect to the performance goal for the relevant performance period.

Dividends and Other Equivalent Rights

Other than with respect to the adjustments referenced under "Adjustments to Shares Subject to the 2018 Plan" above, no dividends or other right for which the record date is (i) before the date the shares subject to an award of options or SARs are issued will be paid or payable, accrue or cause any adjustment to the award, or (ii) before the shares subject to an award of restricted stock, restricted stock units, performance shares and performance units vest will be paid or payable, accrue or cause any adjustment to the award. In addition, unless the Administrator determines otherwise, dividends and other rights for which the record date is before any shares of our Common Stock are issued under any vested restricted stock units, performance shares or performance units will not be paid or payable, accrue or cause any adjustment to such award.

Transferability of Awards

Awards granted under the 2018 Plan generally are not transferable other than by will or by the laws of descent or distribution, and may be exercised during a participant's lifetime only by the participant, unless the Administrator determines otherwise.

Dissolution or Liquidation

In the event of the Company's proposed dissolution or liquidation, the Administrator will notify each participant as soon as practicable prior to the effective date of such proposed transaction. An award will terminate immediately prior to consummation of such proposed action to the extent the award has not been previously exercised.

Change in Control

The 2018 Plan provides that, in the event of a merger or our "change in control" (as defined in the 2018 Plan), the Administrator will have authority to determine the treatment of outstanding awards (without participants' consent), including, without limitation, that:

- awards will be assumed or substantially equivalent awards will be substituted by the acquiring or succeeding corporation or its affiliate;
- awards will terminate upon or immediately prior to consummation of such transaction, upon providing written notice to the participant;
- outstanding awards will vest and become exercisable, realizable, or payable, or restrictions applicable to an award will lapse, in whole or in part prior to or upon such transaction and, to the extent the Administrator determines, terminate upon or immediately prior to the effectiveness of the transaction;
- an award will terminate in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon exercise of the award or realization of the participant's rights as of the date of the transaction, or an award will be replaced with other rights or property selected by the Administrator in its sole discretion; or
- any combination of the foregoing.

If the successor corporation does not assume or substitute outstanding awards (or portions thereof), then with respect to those awards (or portions thereof) not assumed or substituted, options and SARs will become fully vested and exercisable, all restrictions on restricted stock, restricted stock units, performance shares and performance units will lapse, and, with respect to awards with performance-based vesting (or portions thereof) not assumed or substituted, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and all other terms and conditions met, in all cases unless specifically provided otherwise under the applicable award agreement or other written agreement between the participant and the Company or any of its affiliates, as applicable. The Administrator will not be required to treat all awards, all awards held by a participant, or all awards of the same type similarly in the transaction. In addition, if an option or stock appreciation right (or portion thereof) is not assumed or substituted for in the event of a merger or change in control, the Administrator will notify the participant in writing or electronically that the option or SARs (or its applicable portion) will be fully vested and exercisable for a period of time determined by the Administrator in its sole discretion, and the option or SARs (or its applicable portion) will terminate upon the expiration of such period.

Additionally, the 2018 Plan provides that with respect to awards granted to a non-employee director, in the event of our change in control, the participant will fully vest in and have the right to exercise options or SARs as to all of the shares underlying the award and all restrictions on restricted

stock, restricted stock units, performance shares and performance units will lapse, and with respect to awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at one hundred percent (100%) of target levels and all other terms and conditions met, unless specifically provided otherwise.

Termination or Amendment

The 2018 Plan automatically will terminate 10 years from the date of its adoption by the Board, unless terminated at an earlier time by the Administrator. The Administrator may terminate, alter, suspend or amend the 2018 Plan at any time, provided that the Company will obtain stockholder approval of any amendment to the 2018 Plan to the extent necessary or desirable to comply with any applicable laws. No termination, alteration, suspension or amendment of the 2018 Plan may impair the rights of any participant unless mutually agreed otherwise between the participant and the Administrator.

Summary of U.S. Federal Income Tax Consequences

The following summary is intended only as a general guide to the material U.S. federal income tax consequences of participation in the 2018 Plan. The summary is based on existing U.S. laws and regulations, and there can be no assurance that those laws and regulations will not change in the future. The summary does not purport to be complete and does not discuss the tax consequences upon a participant's death, or the provisions of the income tax laws of any municipality, state or non-U.S. jurisdiction to which the participant may be subject. As a result, tax consequences for any particular participant may vary based on individual circumstances.

Incentive Stock Options

No taxable income is reportable when an incentive stock option is granted or exercised, although the exercise may subject the participant to the alternative minimum tax or may affect the determination of the participant's alternative minimum tax (unless the shares are sold or otherwise disposed of in the same year). If the participant exercises the option and then later sells or otherwise disposes of the shares acquired more than two years after the grant date and more than one year after the exercise date, the difference between the sale price and the exercise price will be taxed as capital gain or loss. If the participant exercises the option and then later sells or otherwise disposes of the shares before the end of the two or one year holding periods described above, he or she generally will have ordinary income at the time of the sale equal to the fair market value of the shares on the exercise date (or the sale price, if less) minus the exercise price of the option. For purposes of the alternative minimum tax, the difference between the option exercise price and the fair market value of the shares on the exercise date is treated as an adjustment item in computing the participant's alternative minimum taxable income in the year of exercise. In addition, special alternative minimum tax rules may apply to certain subsequent disqualifying dispositions of the shares or provide certain basis adjustments or tax credits for alternative minimum tax purposes.

Nonstatutory Stock Options

No taxable income is reportable when a nonstatutory stock option with a per share exercise price at least equal to the fair market value of a share of the underlying stock on the date of grant is granted to a participant. Upon exercise, the participant will recognize ordinary income in an amount equal to the excess of the fair market value (on the exercise date) of the shares purchased over the exercise price of the exercised shares subject to the option. Any taxable income recognized in connection with an option exercise by an employee of the Company is subject to tax withholding by us. Any additional gain or loss recognized upon any later disposition of the shares would be capital gain or loss to the participant.

Stock Appreciation Rights

No taxable income is reportable when a stock appreciation right with a per share exercise price equal to at least the fair market value of a share of the underlying stock on the date of grant is granted to a participant. Upon exercise, the participant will recognize ordinary income in an amount equal to the amount of cash received and the fair market value of any shares received. Any taxable income recognized in connection with the exercise of a stock appreciation right by an employee of the Company is subject to tax withholding by us. Any additional gain or loss recognized upon any later disposition of the shares would be capital gain or loss to the participant.

Restricted Stock, Restricted Stock Units, Performance Units and Performance Shares

A participant generally will not have taxable income at the time an award of restricted stock, restricted stock units, performance units or performance shares, are granted. Instead, he or she will recognize ordinary income in the first taxable year in which his or her interest in the shares underlying the award becomes either (i) freely transferable, or (ii) no longer subject to substantial risk of forfeiture. If the participant is an employee, such ordinary income generally is subject to tax withholding by us. However, the recipient of a restricted stock award may elect to recognize income at the time he or she receives the award in an amount equal to the fair market value of the shares underlying the award (less any cash paid for the shares) on the date the award is granted.

Medicare Surtax

A participant's annual "net investment income," as defined in Section 1411 of the Code may be subject to a 3.8% federal surtax (generally referred to as the "**Medicare Surtax**"). Net investment income may include capital gain and/or loss arising from the disposition of shares subject to a participant's awards under the 2018 Plan. Whether a participant's net investment income will be subject to the Medicare Surtax will depend on the participant's level of annual income and other factors.

Section 409A

Section 409A of the Code provides certain requirements for nonqualified deferred compensation arrangements with respect to an individual's deferral and distribution elections and permissible distribution events. Awards granted under the 2018 Plan with a deferral feature will be subject to the requirements of Section 409A of the Code. Section 409A also generally provides that distributions must be made on or following the occurrence of certain events (e.g., the individual's separation from service, a predetermined date, or the individual's death). For certain individuals who are officers, subject to certain exceptions, Section 409A requires that distributions in connection with the officer's separation from service commence no earlier than six months after such officer's separation from service.

If an award granted under the 2018 Plan is subject to and fails to satisfy the requirements of Section 409A of the Code, the recipient of that award may recognize ordinary income on the amounts deferred under the award, to the extent vested, which may be prior to when the compensation is actually or constructively received. Also, if an award that is subject to Section 409A fails to comply with Section 409A's provisions, Section 409A imposes an additional 20% federal income tax on compensation recognized as ordinary income, as well as interest on such deferred compensation. Certain states, such as California, have enacted laws similar to Section 409A which impose additional taxes, interest and penalties on nonqualified deferred compensation arrangements. The Company will also have withholding and reporting requirements with respect to such amounts. In no event will the Company or any of its affiliates have any obligation under the terms of this Plan to reimburse, indemnify, or hold harmless a participant for any taxes, interest or penalties imposed, or other costs incurred, as a result of Section 409A.

Tax Effect for the Company

We generally will be entitled to a tax deduction in connection with an award under the 2018 Plan in an amount equal to the ordinary income realized by a participant and at the time the participant recognizes such income (for example, the exercise of a nonstatutory stock option). Special rules limit the deductibility of compensation paid to our Chief Executive Officer and other "covered employees" within the meaning of Code Section 162(m). Under Code Section 162(m), the annual compensation paid to any of these specified employees will be deductible only to the extent that it does not exceed \$1,000,000.

Number of Awards Granted to Certain Individuals and Groups

The number of awards that an employee, director or consultant may receive under the 2018 Plan is in the discretion of the Administrator and therefore cannot be determined in advance. Our executive officers and non-employee directors have an interest in this proposal because they are eligible to receive awards under the 2018 Plan. The following table sets forth (i) the aggregate number of shares of Common Stock subject to options and restricted stock unit awards granted under the 2010 Plan and the 2018 Plan during the last fiscal year, and (ii) the average per share exercise price of such options and the dollar value of such restricted stock units granted. We ceased to grant awards under the 2010 Plan after stockholders approved the 2018 Plan on September 7, 2018.

<u>Name of Individual or Group</u>	<u>Number of Shares Subject to Options Granted</u>	<u>Average Per Share Exercise Price (\$)</u>	<u>Number of Shares of Restricted Stock Units Granted</u>	<u>Dollar Value of Restricted Stock Units Granted (\$)</u>
John P. Amos Chief Executive Officer and Director	290,000	3.70	—	—
Mark K. Oki Senior Vice President, Chief Financial Officer and Chief Accounting Officer	55,000	3.89	—	—
Kenneth Suh President	190,000	3.70	—	—
John L. Slebir Senior Vice President, Business Development and General Counsel and Secretary	62,500	3.90	—	—
Santosh T. Varghese, M.D. Chief Medical Officer	26,250	4.00	—	—
Thomas B. King Former Interim Chief Executive Officer, Former Interim President and Director	95,000	5.23	—	—
All current executive officers, as a group	800,750	3.92	—	—
All current directors who are not executive officers, as a group	160,000	4.09	—	—
All current employees who are not executive officers, as a group	356,918	4.03	—	—

Required Vote

Approval of the amendment to the 2018 Plan to increase the number of shares reserved for issuance thereunder by 600,000 shares of Common Stock requires the affirmative "FOR" vote of a majority of the shares present in person or represented by Proxy entitled to vote at the Annual Meeting.

Board Recommendation

We believe strongly that the approval of the amendment to the 2018 Plan is essential to our continued success. Our employees are one of our most valuable assets. Stock options, restricted stock units and other awards provided under the 2018 Plan are vital to our ability to attract and retain outstanding and highly skilled individuals. Such awards also are crucial to our ability to motivate employees to achieve the Company's goals. For the reasons stated above, the stockholders are being asked to approve the amendment to the 2018 Plan to increase the number of shares reserved for issuance thereunder.

OUR BOARD UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE APPROVAL OF THE AMENDMENT TO THE 2018 EQUITY INCENTIVE PLAN.

PROPOSAL NO. 5: APPROVAL OF AN AMENDMENT TO THE 1994 EMPLOYEE STOCK PURCHASE PLAN

The Board is seeking stockholder approval of an amendment to the 1994 Employee Stock Purchase Plan (the "**ESPP**") to increase the number of shares of Common Stock reserved for issuance thereunder by 400,000 shares to a new total of 600,000 shares. The Board expects that the additional number of shares reserved for issuance under the ESPP will be sufficient to operate the ESPP for at least four years without having to request additional shares. The Board will periodically review actual share consumption under the ESPP and may make an additional request for shares under the ESPP earlier or later than this period as needed.

The Board believes that approval of the amendment to the ESPP to increase the number of shares reserved for issuance thereunder is appropriate and in the best interest of the Company and its stockholders. The Company believes that maintaining an employee stock purchase plan is an important factor to continuing to attract, motivate and retain qualified individuals to serve as employees of the Company.

Other than the reservation of additional shares under the ESPP, no other material amendments have been made to the plan.

Additional Information Regarding the ESPP

- The actual number of shares of Common Stock that will be purchased under the ESPP cannot be determined because such number will depend on a number of indeterminable factors (including the number of participants, the rates at which participants make contributions to the ESPP, and our stock price). However, in fiscal years 2016, 2017 and 2018, the numbers of shares purchased under the ESPP were 4,104 shares, 5,072 shares, and 11,479 shares, respectively.
- 10 employees participated in the most recently completed offering period, purchasing approximately 6,284 shares of Common Stock (with an approximate value of \$20,046 on the date of purchase) at a purchase price of \$2.71 per share. As of April 1, 2019, approximately 58 employees were eligible to participate in the ESPP.
- As of April 1, 2019, there were 10 employees participating in the offering period then in progress under the ESPP.

Summary of the 1994 Employee Stock Purchase Plan

The following is a summary of the principal features of the ESPP and its operation. This summary does not contain all of the terms and conditions of the ESPP and is qualified in its entirety by reference to the ESPP as set forth in *Appendix B*.

General

The purpose of the ESPP is to provide employees of the Company and designated subsidiaries with an opportunity to purchase Common Stock of the Company through accumulated payroll deductions.

Shares available for issuance

Upon stockholder approval of this proposal, a total of 600,000 shares of Common Stock will be reserved for issuance under the ESPP.

Administration

The ESPP is administered by the Board or any committee of members of the Board appointed by the Board (the "**Administrator**"). The Administrator has full and exclusive discretionary authority to construe, interpret and apply the terms of the ESPP, to designate separate offerings, to determine eligibility, to adjudicate all disputed claims filed under the ESPP and to establish rules, sub-plans and procedures necessary or appropriate for administration of the ESPP. Every finding, decision and determination made by the Board or its committee will, to the full extent permitted by law, be final and binding upon all parties.

Eligibility

The ESPP provides that any individual who is a common law employee of the Company or any designated subsidiary whose customary employment with the Company or any designated subsidiary is at least 20 hours per week and more than five months in any calendar year on a given enrollment date will be eligible to participate in the ESPP subject to the laws in which our designated subsidiaries operate; except that no employee will be granted an option under the ESPP (i) to the extent, immediately after the grant, such employee would own capital stock of the Company or subsidiary and/or hold outstanding options to purchase such stock possessing 5% or more of the total combined voting power, or (ii) to the extent the employee accrues through payroll deductions at a rate that exceeds \$25,000 worth of stock for each calendar year in which such option is outstanding at any time. As of April 1, 2019, there were approximately 58 employees eligible to participate in the ESPP, including six executive officers.

Offering Periods

The ESPP is implemented by consecutive offering periods with a new offering period commencing on the first trading day on or after May 15 and terminating on the last trading day in the period ending the following November 14, or commencing on the first trading day on or after November 15 and terminating on the last trading day in the period ending the following May 14, or on such other date as the Administrator will determine, and continuing thereafter until terminated in accordance with the ESPP. The Administrator has the power to change the duration of offering periods (including the commencement dates thereof) with respect to future offerings without stockholder approval if such change is announced prior to the scheduled beginning of the first offering period to be affected thereafter.

An employee may become a participant in the ESPP by completing a subscription agreement authorizing payroll deductions in the form of Exhibit A to the ESPP and may elect to have payroll deductions on each pay day during the offering period in an amount not less than 1% and not exceeding 10% of the compensation the participant receives on each pay day during the offering period. Once an employee becomes a participant in the ESPP, the employee automatically will participate in each successive offering period until the employee withdraws from the ESPP or the employee's employment with the Company or the designated subsidiaries terminates. At the beginning

of each offering period, each participant automatically is granted an option to purchase shares of Company's Common Stock. The option expires at the end of the offering period or upon termination of employment, whichever is earlier, but is exercised at the end of each offering period to the extent of the payroll deductions accumulated during such offering period unless the participant has withdrawn from the ESPP.

Purchase Price

The exercise price of shares purchased under the ESPP will be 85% of the lesser of the fair market value of Common Stock on (i) the enrollment date or (ii) the exercise date of the applicable offering period. The fair market value of Common Stock will be the closing price per share as reported on any established stock exchange market system or the mean of the closing bid and asked prices, if no sales were reported, as quoted on such exchange or reported in *The Wall Street Journal*.

Payment of Purchase Price; Payroll Deductions

On the enrollment date of each offering period, each employee participating in such offering period will be granted an option to purchase on the exercise date of such offering period (at the applicable purchase price) up to a number of shares of the Company's Common Stock determined by dividing such employee's payroll deductions (or other contributions) accumulated prior to such exercise date and retained in the participant's account as of the exercise date by the applicable purchase price. In no event will an employee be permitted to purchase during each offering period more than 1,000 shares of the Company's Common Stock. During the offering period, a participant may discontinue his or her participation in the ESPP, and may decrease or increase the rate of payroll deductions in an offering period within limits set by the administrator.

All payroll deductions made for a participant will be credited to his or her account under the ESPP and are withheld in whole percentages only. A participant may not make any additional payments into such account. Funds received or held by the Company under the ESPP may be used for general corporate purposes.

Withdrawal

Generally, a participant may withdraw from an offering period at any time by written notice without affecting his or her eligibility to participate in future offering periods. However, if a participant withdraws from participation during a particular offering period, that participant may not participate again in the same offering period. To participate in a subsequent offering period, the participant must deliver to the Company a new subscription agreement.

Termination of Employment

Upon termination of a participant's employment for any reason, or failure of the participant to remain an employee, he or she will be deemed to have elected to withdraw from the plan and the payroll deduction will be credited to the participant's account (to the extent not used to make a purchase of Company's Common Stock) or will be returned to the participant or, in the case of death, to the person or persons entitled thereto as provided in the ESPP, and such participant's option will be automatically terminated.

Changes in Capitalization

Subject to any required action by the stockholders, the number and price per share of Common Stock covered by each option under the ESPP which have not yet been exercised and the number of shares of Common Stock which have been authorized for issuance under the Plan but not yet placed under option will be proportionately adjusted for any increase or decrease in the number of issued

shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease in the number of shares of Common Stock effected without receipt of consideration by the Company. For example, in September 2018, we enacted a 1-for-10 reverse stock split, and we adjusted the ESPP share reserve, related ESPP share limits, and outstanding offerings to reflect the same.

Dissolution or Liquidation

In the event of dissolution or liquidation of the Company, the offering period will be shortened by setting a new exercise date and will terminate immediately prior to the completion of the dissolution or liquidation, unless provided otherwise by the Administrator. The new exercise date will be prior to the dissolution or liquidation. The Administrator will notify each participant in writing, at least ten (10) business days prior to the new exercise date, that the exercise date for the participant's option has been changed to the new exercise date and that the participant's option will be exercised automatically on the new exercise date, unless prior to such date the participant has withdrawn from the offering period.

Merger or Change of Control

In the event of a merger or change of control (as defined in the ESPP), each option under the ESPP will be assumed or an equivalent option will be substituted by such successor corporation or a parent or subsidiary of such successor corporation. If no surviving corporation assumes outstanding rights or substitutes similar rights, the Administrator will shorten the offering period then in progress by setting a new exercise date on which such offering will end or cancel each outstanding right to purchase shares and refund all sums collected from participants for the offering period in progress. If the Administrator shortens any offering periods then in progress, the Administrator will notify each participant in writing at least ten (10) business days prior to the new exercise date, that the exercise date has been changed to the new exercise date and that the right will be exercised automatically on the new exercise date, unless the participant has already withdrawn from the offering.

Amendment and Termination

The Administrator may at any time amend or terminate the ESPP without approval of the stockholders; provided, however, that the Company will obtain stockholder approval of any amendment to the ESPP to the extent necessary to comply with Section 423 of the Code, or with any other applicable law or regulation, including requirements of Nasdaq or any established stock exchange. Any amendment or termination of the ESPP is subject to the rights of optionees under agreements entered into prior to such amendment or termination. However, the Administrator may, without regard to whether participant rights are adversely affected, make changes to offering periods, designate separate offerings, limit the frequency and/or number of changes in the amounts withheld during an offering period, and make certain other changes as provided in the ESPP.

Summary of U.S. Federal Income Tax Consequences

The following brief summary of the effect of federal income taxation upon the participant and with respect to the shares purchased under the ESPP does not purport to be complete, and does not discuss the tax consequences of a participant's death or the income tax laws of any state or foreign country in which the participant may reside.

The ESPP, and the right of participants to make purchases thereunder, is intended to qualify under the provisions of Sections 421 and 423 of the Code. Under these provisions, no income will be taxable to a participant until the shares purchased under the ESPP are sold or otherwise disposed of. Upon sale or other disposition of the shares, the participant will generally be subject to tax in an amount that depends upon the holding period. If the shares are sold or otherwise disposed of more than two years

from the first day of the applicable offering period and one year from the applicable date of purchase, the participant will recognize ordinary income measured as the lesser of (i) the excess of the fair market value of the shares at the time of such sale or disposition over the purchase price, or (ii) an amount equal to 15% of the fair market value of the shares as of the first day of the applicable offering period. Any additional gain will be treated as long-term capital gain. If the shares are sold or otherwise disposed of before the expiration of these holding periods, the participant will recognize ordinary income generally measured as the excess of the fair market value of the shares on the date the shares are purchased over the purchase price. Any additional gain or loss on such sale or disposition will be long-term or short-term capital gain or loss, depending on how long the shares have been held from the date of purchase. The Company generally is not entitled to a deduction for amounts taxed as ordinary income or capital gain to a participant except to the extent of ordinary income recognized by participants upon a sale or disposition of shares prior to the expiration of the holding periods described above.

Number of Shares Purchased by Certain Individuals and Groups

Given that participation in the ESPP is voluntary and is dependent on each employee's election to participate and his or her determination as to the level of payroll deductions, the actual number of shares that may be purchased by any individual is not determinable.

For illustrative purposes, the following table sets forth certain information regarding shares purchased under the ESPP during the last fiscal year and the payroll deductions accumulated at the end of the last fiscal year in accounts under the ESPP for each of the executive officers named in the Summary Compensation Table, for all current executive officers as a group and for all other employees who participated in the ESPP as a group:

<u>Name</u>	<u>Shares Purchased</u>	<u>Dollar Value*</u>	<u>Payroll Deductions as of Fiscal Year end</u>
John P. Amos Chief Executive Officer and Director	—	—	—
Mark K. Oki Senior Vice President, Chief Financial Officer and Chief Accounting Officer	700	335	1,440
Kenneth Suh President	—	—	—
John L. Slebir Senior Vice President, Business Development and General Counsel and Secretary	—	—	—
Santosh T. Varghese, M.D. Chief Medical Officer	700	335	799
Thomas B. King Former Interim Chief Executive Officer, Former Interim President and Director	—	—	—
All current executive officers, as a group	1,400	670	2,239
All other employees who are not executive officers, as a group	10,079	6,545	5,540

* Market value of shares on date of purchase, minus the purchase price under the ESPP.

Required Vote

Approval of the amendment to the ESPP to increase the number of shares reserved for issuance thereunder by 400,000 shares requires the affirmative "**FOR**" vote of a majority of the shares present in person or represented by Proxy entitled to vote at the Annual Meeting.

Board Recommendation

The Board believes strongly that the approval of the amendment to the ESPP is in the best interest of Company and the stockholders. The opportunity to purchase shares under the ESPP provides an important incentive to employees and helps the Company recruit, retain, and motivate talented employees. For the reasons stated above, the stockholders are being asked to approve the amendment to the ESPP to increase the number of shares reserved for issuance.

OUR BOARD UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE APPROVAL OF THE AMENDMENT TO THE 1994 EMPLOYEE STOCK PURCHASE PLAN.

CORPORATE GOVERNANCE

Board Meetings

The Board met 12 times during fiscal year 2018. All directors attended at least 75% of the aggregate of all meetings of the Board and of the committees on which they served during the year ended December 31, 2018.

Although we do not have a formal policy regarding attendance by members of the Board at our annual meetings of stockholders, directors are encouraged to attend annual meetings of stockholders. Five of our seven then serving directors attended the 2018 Annual Meeting of Stockholders.

Board Independence

As required under Rule 5605 of the Nasdaq Listing Rules, a listed company's board of directors must affirmatively determine that a majority of its directors are "independent," as defined by such listing standards. That definition includes a series of objective factors, including that the director is not an employee of the company and has not engaged in various types of business dealings with the company. Additionally, the board of directors must make a subjective determination as to each director that no relationship exists that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation, and nominating and corporate governance committees be independent and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act. Compensation committee members must also satisfy independence criteria set forth in Rule 10C-1 under the Exchange Act.

Consistent with these requirements, our Board has determined that each of Karen Ferrell, Edward A. Kangas, Thomas B. King, David Y. Norton, Jorge Plutzky, M.D., Eric W. Roberts and Herman Rosenman, which represent seven of our nine directors, currently satisfies the director independence standards of the Nasdaq Listing Rules. Mr. King served as our interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as our interim President from April 30, 2018 to May 30, 2018. Mr. King's position as an interim executive officer during such periods does not disqualify him from being considered independent under the Nasdaq Listing Rules as of the date of this Proxy Statement. Our Board has determined that John P. Amos, our Chief Executive Officer, is not independent by virtue of his employment with the Company, and Allan L. Shaw is not independent by virtue of his prior role as a consultant with the Company. The Board also determined that each member of the Audit, Compensation and Nominating and Governance Committees satisfies the independence standards for such committees established by the SEC and the Nasdaq Listing Rules, as applicable.

Board Leadership Structure

The Company maintains separate positions of the Chairman of the Board and the Chief Executive Officer. Having these positions separate allows our Chief Executive Officer to focus on the daily operations, while allowing the Chairman of the Board to lead the Board in its fundamental role of providing advice to and independent oversight of management. Though our charter documents do not require that our Chairman of the Board and Chief Executive Officer positions be separate, the Board believes that having separate positions is the appropriate leadership structure to assure good and efficient corporate governance. The Board has charged the Chairman of the Board with responsibility for presiding over meetings of the Board, developing meeting agendas in consultation with management, facilitating communication between management and the Board, representing director views to management and improving meeting effectiveness, among other things. Our Chairman of the Board is elected annually at the first Board meeting following the annual meeting of stockholders and is currently David Y. Norton.

Risk Oversight

Our Board as a whole is responsible for overseeing our risk management function. Members of our senior management team are responsible for implementation of our day-to-day risk management processes, while the Board, as a whole and through its Audit Committee, Compensation Committee, Nominating and Governance Committee and Corporate Development Committee, has responsibility for the oversight of overall risk management. As risk is inherent in every business and is rarely static, the Board and senior management routinely discuss and analyze any significant strategic, operational, financial, legal and compliance risks facing the Company, as well as our general risk management strategy and actions taken by senior management in compliance with this strategy. At meetings of the Board, senior management provides updates to the Board on any specific risk-related issues as they evolve, which allows the Board to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

In addition, each of the committees of our Board considers any risks that may be within its area of responsibilities and directors periodically engage in discussions with members of the senior management team as appropriate. Specifically, the Audit Committee assists the Board in fulfilling its oversight responsibilities with respect to risk management in the areas of financial reporting, internal controls, compliance with legal and regulatory requirements and cybersecurity (including protection of customer and employee data and other confidential information, and ensuring the security of data on the cloud). The Compensation Committee assists the Board in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs. The Nominating and Governance Committee assists the Board in fulfilling its oversight responsibilities with respect to the management of risks associated with board organization, membership and structure, succession planning for our directors and executive officers and corporate governance. The Corporate Development Committee assists the Board in assessing specific risks and issues relating to potential transactions not in the ordinary course of business.

Board Committees

The Board has Audit, Compensation, Nominating and Governance, and Corporate Development Committees. The written charter for each of these committees can be found on our website at www.vivus.com. All members of the Audit, Compensation, Nominating and Governance, and Corporate Development Committees are appointed by the Board. The following describes each committee, including its current membership, the number of meetings held during fiscal year 2018, and its function:

Audit Committee

The Audit Committee currently consists of directors Ferrell, King, Norton and Rosenman, none of whom is an employee of the Company and each of whom is independent within the meaning of the Nasdaq Listing Rules and the Exchange Act, in each case as currently in effect. The Board has determined that Mr. Rosenman is an "audit committee financial expert" as defined in the applicable SEC rules. Mr. Rosenman currently serves as Chairman of the Audit Committee. In 2018 until February 2018, Allan L. Shaw also served as a member of the Audit Committee. From February 2018 until February 2019, Jorge Plutzky, M.D. also served as a member of the Audit Committee. The Audit Committee held four meetings during fiscal year 2018.

The Audit Committee's main function is to oversee our accounting and financial reporting processes, internal system of control, independent registered public accounting firm relationships and

the audits of our financial statements. The Audit Committee's responsibilities include, among other things:

- assisting the Board in its oversight of the integrity of the Company's accounting and financial reporting process and the audits of the Company's financial statements by the Company's independent registered public accounting firm;
- monitoring the periodic reviews of the adequacy of the accounting and financial reporting processes and systems of internal control that are conducted by the independent registered public accounting firm and the Company's financial and senior management;
- evaluating the Company's compliance with legal and regulatory requirements under applicable securities law;
- interacting directly with and evaluating the performance of the independent registered public accounting firm, including engaging or dismissing the independent registered public accounting firm and monitoring the independent registered public accounting firm's qualifications and independence; and
- facilitating communication among the independent registered public accounting firm and the Company's financial and senior management and the Board.

Both our independent registered public accounting firm and internal financial personnel meet privately with the Audit Committee and have unrestricted access to the Audit Committee.

The Audit Committee Report is included herein below.

Compensation Committee

The Compensation Committee currently consists of directors Kangas, Norton and Rosenman, none of whom is currently or has served as an employee of the Company during fiscal year 2018 and each of whom is independent within the meaning of the Nasdaq Listing Rules and the Exchange Act, in each case as currently in effect. The Compensation Committee held nine meetings during fiscal year 2018. In 2018 until February 2018, Allan L. Shaw also served as a member and Chairman of the Compensation Committee. In 2018 until February 2019, Eric W. Roberts also served as a member of the Compensation Committee. No member of the Compensation Committee serves as a member of the board of directors or compensation committee of any entity that has one or more officers serving as a member of our Board or Compensation Committee. Mr. Norton currently serves as Chairman of the Compensation Committee. The Compensation Committee's responsibilities include, among other things:

- establishing and maintaining compensation and benefit plans, policies and programs designed to attract, motivate and retain personnel with the requisite skills and abilities to enable the Company to achieve superior operating results;
- reviewing the compensation of the Company's Chief Executive Officer, the Company's other executive officers as defined by Rule 3b-7 of the Exchange Act and the Company's non-employee directors; and
- ensuring compliance with the compensation rules, regulations and guidelines promulgated by Nasdaq, the SEC and other law, as applicable.

The Compensation Committee reviews and approves the salaries and incentive compensation of our officers and directors. In addition, the Compensation Committee approves all new hire equity grants, as well as equity grants for all employees as part of our annual performance review process.

The agenda for meetings of the Compensation Committee is prepared by the Compensation Committee Chair in consultation with management. The Compensation Committee may request that

any directors, officers or employees of the Company, or other persons whose advice and counsel are sought by the Compensation Committee, attend any meeting to provide such information as the Compensation Committee requests. In rendering its decisions, the Compensation Committee also considers the information regarding comparably sized companies in the biotechnology and pharmaceutical industries in the United States and its collective experience with other companies. The Chief Executive Officer and any other officers cannot be present during the portion of any meeting relating to their own compensation or performance.

The Compensation Committee is entitled to delegate any or all of its responsibilities to a subcommittee of the Compensation Committee, but only to the extent consistent with the Company's Amended and Restated Certificate of Incorporation, Amended and Restated Bylaws, as further amended, Section 162(m), Nasdaq Listing Rules and other applicable law. The Board retains the authority to review and approve cash and equity compensation for our officers and directors, which it exercises from time to time.

The Compensation Committee is committed to ensuring that compensation programs are designed to encourage high performance, promote accountability and assure that employee interests are aligned with the interests of the Company's stockholders. To this end, the Compensation Committee has directly selected and retained the services of Radford, an Aon Hewitt Company, or Radford, to assist it in evaluating executive and non-employee director compensation matters. During 2018, Radford only provided services to the Compensation Committee and such services were related exclusively to executive, equity and non-employee director compensation. In 2018, the Compensation Committee engaged Radford to conduct a peer group analysis, an analysis of the executive compensation programs, including that of the Chief Executive Officer, a review of ongoing equity strategies, and an analysis of non-employee directors' compensation. The Compensation Committee has the sole discretion to retain or obtain the advice of compensation consultants, legal counsel and other compensation advisers, direct responsibility for the appointment, compensation and oversight of the work of any compensation adviser, the right to receive from the Company appropriate funding, as determined by the Compensation Committee, for the payment of reasonable compensation to compensation advisers retained by the Compensation Committee and responsibility to consider certain independence factors before selecting such compensation advisers, other than in-house legal counsel. The compensation consultant reports directly and exclusively to the Compensation Committee with respect to executive and non-employee director compensation matters.

After review and consultation with Radford and executive management, the Compensation Committee has determined that Radford is independent and there is no conflict of interest resulting from retaining Radford currently or during the year ended December 31, 2018. In reaching these conclusions, the Compensation Committee considered the factors set forth in Rule 10C-1 of the Exchange Act and applicable Nasdaq Listing Rules.

The Compensation Committee Report is included herein below.

Nominating and Governance Committee

The Nominating and Governance Committee currently consists of directors King, Norton and Roberts, none of whom is an employee of the Company and each of whom is independent within the meaning of the Nasdaq Listing Rules as currently in effect. The Nominating and Governance Committee held two meetings during fiscal year 2018. Mr. Norton currently serves as Chairman of the Nominating and Governance Committee.

The Nominating and Governance Committee is responsible for:

- identifying, considering and recommending candidates for nomination to the Board;

- developing, reviewing and recommending to the Board, corporate governance guidelines and principles applicable to the Company;
- overseeing the evaluation of the Board, including from time to time conducting surveys of director observations, suggestions and preferences; and
- advising the Board on corporate governance matters and performance matters of the Board, including recommendations regarding the structure and composition of the Board and Board committees.

The Nominating and Governance Committee will consider properly submitted stockholder recommendations for candidates for membership on the Board as described below. Any stockholder recommendations proposed for consideration by the Nominating and Governance Committee should include the candidate's name and qualifications for membership on the Board and should be addressed to our Corporate Secretary at VIVUS, Inc., 900 E. Hamilton Avenue, Suite 550, Campbell, CA 95008. In addition, procedures for stockholder direct nomination of directors are discussed in detail in our Amended and Restated Bylaws, as further amended, which can be provided to you upon written request. The Nominating and Governance Committee will consider a director candidate recommended by our stockholders in the same manner as a nominee recommended by a member of the Board, management or other sources.

The Nominating and Governance Committee will utilize a variety of methods for identifying and evaluating nominees for director. The Nominating and Governance Committee intends to regularly assess the appropriate size of the Board, and whether any vacancies on the Board are expected due to retirement or otherwise. In the event that vacancies are anticipated, or otherwise arise, the Nominating and Governance Committee plans to consider various potential candidates for director. Candidates may come to the attention of the Nominating and Governance Committee through current members of the Board, professional search firms, stockholders or other persons. These candidates will be evaluated at regular or special meetings of the Nominating and Governance Committee, and may be considered at any point during the year. In evaluating such recommendations, the Nominating and Governance Committee uses the qualifications standards discussed below and seeks to achieve a balance of knowledge, experience and skill on the Board.

The Nominating and Governance Committee will use a variety of criteria to evaluate the qualifications and skills necessary for members of our Board. The Nominating and Governance Committee has also specified the following minimum qualifications that it believes must be met by a nominee for a position on the Board as follows:

- possession of the highest professional and personal ethics and values;
- the ability to think and act independently;
- broad experience at the policy-making level in business, healthcare, education, or government;
- a commitment to enhancing stockholder value and providing insight and practical wisdom based on experience;
- service on other boards of public companies limited to a number that permits a director, given each director's individual circumstances, to perform all director duties responsibly; and
- the ability to represent the interests of our stockholders.

While the Company does not have a formal policy on director diversity, the Board and the Nominating and Governance Committee also consider diversity when reviewing the composition of the Board and considering the slate of nominees for annual election to the Board and the appointment of individual directors to the Board. In this context, diversity factors include without limitation experience, specialized expertise, geographic location, cultural background and gender. Diversity factors are then

considered with other factors by our Nominating and Governance Committee in the context of an assessment of the perceived needs of our Board on an annual basis or at a particular point in time.

After completing its evaluation, the Nominating and Governance Committee makes a recommendation to the full Board as to the persons who should be nominated to the Board, and the Board determines the nominees after considering the recommendation and report of the Nominating and Governance Committee.

Corporate Development Committee

The Corporate Development Committee currently consists of directors King, Norton, Plutzky, Roberts, Rosenman and Shaw, none of whom is an employee of the Company. The Corporate Development Committee held six meetings during fiscal year 2018. Mr. Roberts currently serves as Chairman of the Corporate Development Committee.

The Corporate Development Committee is responsible for:

- reviewing and making recommendations with respect to the Company's long-term business goals and strategic plans developed by management;
- assisting management in the review of transactions not in the ordinary course of business; and
- reviewing the integration plans for proposed transactions as applicable.

Compensation Committee Interlocks and Insider Participation

None of our directors who served on our Compensation Committee during 2018 is currently or has been, at any time since our formation, one of our officers or employees. However, Mr. Shaw previously served on the Compensation Committee in 2018 until February 1, 2018, and on February 26, 2018, he entered into a Consulting Agreement with the Company, effective February 1, 2018. During 2018, no executive officer 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 or our Compensation Committee. The Compensation Committee currently consists of directors Kangas, Norton and Rosenman. None of the members of our Compensation Committee during 2018 currently has or has had any relationship or transaction with a related person requiring disclosure pursuant to Item 404 of Regulation S-K, other than the Consulting Agreement between the Company and Mr. Shaw as described above and as discussed in more detail in the section entitled "Certain Relationships and Related Transactions—Consulting Agreement and Stock Purchase Agreement."

Stockholder Communications to Directors

Stockholders may communicate directly with our Board by sending a letter addressed to:

General Counsel
VIVUS, Inc.
900 E. Hamilton Avenue, Suite 550
Campbell, CA 95008

Our General Counsel will ensure that a summary of all communications received is provided to the Board at its regularly scheduled meetings. Stockholders who would like their submission directed to a member of the Board may so specify, and the communication will be forwarded, as appropriate. Where the nature of a communication warrants, the General Counsel may decide to obtain the more immediate attention of the appropriate committee of the Board or a non-management director, management or independent advisors, as the General Counsel considers appropriate. The General Counsel may decide, in the exercise of his judgment, whether a response to a stockholder communication is necessary.

Code of Business Conduct and Ethics

The Board has adopted a Code of Business Conduct and Ethics, which is applicable to all of our employees, officers and directors. The Code of Business Conduct and Ethics may be found on our website at www.vivus.com. We will disclose any amendment to the Code of Business Conduct and Ethics or waiver of a provision of the Code of Business Conduct and Ethics, including the name of the person to whom the waiver was granted, on our website on the Investor Relations page within four business days following the date of such amendment or waiver.

Corporate Governance Guidelines

The Board has adopted Corporate Governance Guidelines, which set forth amongst other things the principles that guide the Board's exercise of its responsibility to oversee corporate governance, maintain its independence and evaluate its own performance. Our Corporate Governance Guidelines provide that the Board shall elect its Chairman and appoint the Company's Chief Executive Officer in accordance with the best interests of the Company. Our Corporate Governance Guidelines also provide that directors should not serve on boards of public companies in addition to the Company's Board where such service is likely to interfere with the performance of the director's duties to the Company, taking into account the individual, the nature of his or her activities and such other factors or considerations as the Board deems relevant. The Corporate Governance Guidelines may be found on our website at www.vivus.com.

EXECUTIVE OFFICERS

Officers serve at the discretion of the Board. The following table and the biographical information that follows it set forth information as of April 1, 2019 regarding our executive officers:

Name	Age	Position
John P. Amos	52	Chief Executive Officer and Director
Mark K. Oki	50	Senior Vice President, Chief Financial Officer and Chief Accounting Officer
Kenneth Suh	43	President
John L. Slebir	53	Senior Vice President, Business Development and General Counsel and Secretary
M. Scott Oehrlein	53	Chief Operations Officer
Santosh T. Varghese, M.D.	48	Chief Medical Officer

The biographical information of Mr. Amos is set forth above under Proposal No. 1, "Election of Directors."

Mark K. Oki has served as our Senior Vice President, Chief Financial Officer and Chief Accounting Officer since February 2019. From October 2015 until February 2019, Mr. Oki served as our Chief Financial Officer and Chief Accounting Officer. Prior to this, Mr. Oki held the following positions at Alexza Pharmaceuticals, Inc., a publicly traded pharmaceutical company: Senior Vice President, Finance and Chief Financial Officer from July 2012 until October 2015, Principal Accounting Officer from May 2010 until October 2015, Principal Financial Officer and Secretary from December 2011 until October 2015, Vice President, Finance and Controller from February 2010 until July 2012 and Controller from April 2006 until February 2010. From June 2001 until April 2006, he served as the Controller of Pharmacyclics, Inc., a publicly traded development stage pharmaceutical company. From 1998 until 2001, Mr. Oki held several positions at Incyte Genomics, Inc., now Incyte Corporation, a publicly traded company, including most recently as Assistant Controller. From 1992 until 1997, he held several positions at Deloitte & Touche LLP, a public accounting firm. Mr. Oki holds a B.S. in Business Administration with a concentration in Accounting from San Jose State University.

Kenneth Suh has served as our President since August 2018. Mr. Suh founded Willow Biopharma Inc., a biopharmaceutical company, in 2015 and served as the President and Chief Executive Officer and as a director from August 2015 to August 2018. In April 2018, Willow Biopharma Inc. became a wholly owned subsidiary of the Company, and Mr. Suh was reappointed as the President and Chief Executive Officer and as a director of Willow Biopharma Inc. In August 2018, Mr. Suh resigned as the President and Chief Executive Officer and as a director of Willow Biopharma Inc. Mr. Suh also founded KRIM Biopharma Inc., a biopharmaceutical company, in 2013 and served as the President and Chief Executive Officer from August 2013 to August 2015 and as a director from August 2013 to August 2015. Mr. Suh held the following roles for Novartis Pharma Canada, a pharmaceutical company: Franchise Lead from 2012 to 2013, Brand Manager from 2010 to 2012, Associate Brand Manager from 2009 to 2010 and Medical Representative from 2006 to 2009. He received a Bachelor of Commerce, Honors Program from the University of Guelph, Ontario.

John L. Slebir has served as our Senior Vice President, Business Development and General Counsel since January 2014, and, since June 2012, he also has served as our Secretary. From June 2011 until January 2014, Mr. Slebir served as our Vice President, Business Development and General Counsel, from January 2011 until June 2011, he served as our Vice President, General Counsel, and, from September 2009 until January 2011, he served as our General Counsel on a part-time basis. From March 1999 until January 2011, Mr. Slebir served as an attorney at Wilson Sonsini Goodrich & Rosati, P.C., specializing in corporate securities and corporate governance. Prior to joining Wilson Sonsini Goodrich & Rosati, P.C., Mr. Slebir was an attorney at two prominent Bay Area law firms

specialized in insurance and sporting equipment defense litigation. Mr. Slebir holds a B.A. in Communications from San Diego State University and a J.D. from Santa Clara University School of Law.

M. Scott Oehrlein has served as our Chief Operations Officer since April 30, 2018. Mr. Oehrlein served as the Global Chief Operations Officer of Willow Biopharma Inc., a biopharmaceutical company, from November 2017 to April 2018 when it was acquired by us. He served as Vice President and Head of General Medicines Sales/Diabetes and CV Sales, U.S. Sanofi, a global biopharmaceutical company, from April 2014 to June 2017. Mr. Oehrlein held various roles for Novartis Pharmaceuticals Corporation, a global healthcare company, from August 2004 to April 2014 including the following: Vice President, Head of Primary Care Sales US from April 2012 to April 2014, General Manager South Operating Unit from August 2011 to March 2012, and Vice President Primary Care Franchise, Novartis Canada Montreal from January 2009 to July 2011. He began his career as a sales representative with The Upjohn Company, a global pharmaceutical company, in 1989 before moving into multiple leadership roles in sales and marketing. He received a B.A. in Biology and Pre-Medicine from Franklin and Marshall College.

Santosh T. Varghese, M.D. has served as our Chief Medical Officer since January 2016. Dr. Varghese served as our Vice President, Medical & Regulatory Affairs, Pharmacovigilance, and QA from October 2013 until December 2015, as our Vice President, Head of Medical Affairs, Pharmacovigilance, and Regulatory Compliance from July 2013 until October 2013, as our Vice President, Head of Medical Affairs and Pharmacovigilance from April 2012 until July 2013, and as our Vice President, Head of Medical Affairs from March 2012 until April 2012. Prior to this, Dr. Varghese was Senior Vice President, Medical Affairs at Elan Pharmaceuticals, a biopharmaceutical company, from January 2011 until March 2012. From April 2010 until January 2011, Dr. Varghese served as an executive consultant in the pharmaceutical industry for medical education and pharmaceutical companies. From June 2008 until April 2010, he was Vice President Primary Care & Cardiovascular in Global Medical Affairs at Schering-Plough Corporation (now Merck & Co.), a pharmaceutical company, in addition to other senior roles at Schering-Plough Corporation from May 2006 until June 2008. From November 2000 until May 2006, he held senior roles at Aventis and Sanofi-Aventis (now Sanofi SA), a pharmaceutical company. Dr. Varghese previously served on the board of directors of the American Lung Association—New York, and was an Adjunct Associate Professor at Touro University College of Medicine (now New York Medical College). Dr. Varghese is the co-author of abstracts and journal publications in multiple therapeutic areas. Dr. Varghese holds a B.S. in Biology from Pennsylvania State University and an M.D. from St. George's University School of Medicine. He completed his medical training in the Caribbean, United States, and United Kingdom.

AUDIT COMMITTEE REPORT

Notwithstanding any statement to the contrary in any of our previous or future filings with the SEC, this report of the Audit Committee of our Board of Directors shall not be deemed "filed" with the SEC or "soliciting material" under the Securities Exchange Act of 1934, as amended, and shall not be incorporated by reference into any such filings.

The following is the report of the Audit Committee of the Board of Directors. The Audit Committee has reviewed and discussed our audited financial statements for the fiscal year ended December 31, 2018 with our management. In addition, the Audit Committee has discussed with OUM & Co. LLP, our independent registered public accounting firm, or the Auditors, the matters required to be discussed by the Statement on Auditing Standards No. 1301, "Communications with Audit Committees," as adopted by the Public Company Accounting Oversight Board ("**PCAOB**").

The Audit Committee also has received the written disclosures and the letter from the Auditors required by applicable requirements of the PCAOB regarding the Auditors' communications with the Audit Committee concerning independence, and has discussed with the Auditors the Auditors' independence.

Based on the Audit Committee's review of the matters noted above and its discussions with our Auditors and our management, the Audit Committee recommended to the Board of Directors that the financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

AUDIT COMMITTEE
OF THE BOARD OF DIRECTORS
Herman Rosenman, *Chairman*
Karen Ferrell
Thomas B. King
David Y. Norton

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

The following Compensation Discussion and Analysis describes the philosophy, objectives and structure of our 2018 executive compensation program. This includes discussion and background information regarding the compensation of our named executive officers.

We refer to the following individuals as our "named executive officers" for 2018:

Name	Title
John P. Amos	Chief Executive Officer
Mark K. Oki	Senior Vice President, Chief Financial Officer and Chief Accounting Officer
Kenneth Suh	President
John L. Slebir	Senior Vice President, Business Development and General Counsel and Secretary
Santosh T. Varghese, M.D.	Chief Medical Officer
Thomas B. King	Former Interim Chief Executive Officer and Former Interim President

General Philosophy

We compensate our named executive officers through a combination of base salary, cash bonus and equity compensation designed to be competitive with comparable companies. Our core objective is to attract, retain, reward and motivate our named executive officers and to align our performance with the long-term interests of our stockholders. We evaluate our compensation based on a number of factors, including corporate and individual performance.

Our compensation programs are designed to:

- attract and retain our named executive officers by providing an overall compensation package that is competitive in the market in which we compete through cash bonuses and long-term equity awards based on corporate and individual performance;
- share the risks and rewards of our business with our named executive officers;
- align the interests of our named executive officers with the interests of our stockholders in particular through equity awards; and
- compensate our named executive officers in a manner that is efficient and affordable for the Company.

In determining the compensation for our named executive officers, we, in connection with consulting with our compensation consultant, Radford, consider a number of factors, including information regarding comparably sized companies in the biotechnology and pharmaceutical industries in the United States. We also consider the seniority level of the employee, and the employee's overall performance and contribution to the Company.

Executive Summary

In 2018, we refocused VIVUS' business strategy to building a commercial company generating positive cash flows. We added to our team three new executives with significant experience in acquiring and commercializing cash flow generating pharmaceutical products, Mr. Amos as our Chief Executive Officer, Mr. Suh as our President, and Mr. Oerhleim as our Chief Operations Officer. In addition, we acquired PANCREAZE®, a cash flow generating asset. Our focus in the second half of 2018 and the

first quarter of 2019 was commercializing PANCREAZE and Qsymia®, maximizing the value of STENDRA®/SPEDRA™, maintaining our Nasdaq listing and addressing our outstanding debt balances. In the first quarter of 2019, we relaunched PANCREAZE, with a sales force of 10 representatives focused on targeting the top 40% of U.S. physicians who prescribe treatment for exocrine pancreatic insufficiency. We are rolling out a direct-to-consumer distribution channel for Qsymia, which we believe will make Qsymia available to a greater number of potential customers and increased our sales team to 21 representatives. We gained approval for STENDRA/SPEDRA in Russia, Jordan and Saudi Arabia. We completed our 1-for-10 reverse stock split allowing for our continued listing on Nasdaq, and repurchased a total of \$68.6 million of our convertible notes at a discount to face value. We continue the development of VI-0106 and anticipate filing an Investigational New Drug Application with the U.S. Food and Drug Administration in 2019.

Stockholder Say-on-Pay Votes

In accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, we held a non-binding stockholder vote at our 2018 Annual Meeting of Stockholders on our 2017 executive compensation practices. The Compensation Committee, while not bound to act on a negative vote, carefully considers the opinion of its stockholders in making compensation decisions. We also have an ongoing dialogue with our largest stockholders about various aspects of our business and corporate governance, and we take into consideration the concerns raised by such stockholders. The stockholders did not approve, on an advisory basis, our 2017 executive compensation at the 2018 Annual Meeting. After careful consideration, the Compensation Committee in conjunction with executive management reduced the number of equity awards granted to our then serving named executive officers, continued to integrate the changes to our senior management team in 2018 (including the hiring of a new Chief Executive Officer and a new President) with the goal of executing on our business strategy, changed the composition of the Board of Directors and changed the composition of the Compensation Committee in February 2019. In alignment with our philosophy on stockholder say-on-pay and with the results of the say-on-pay frequency vote held at our 2017 Annual Meeting, we intend to continue to hold non-binding stockholder say-on-pay votes annually.

Executive Compensation Program Objectives

Executive Compensation Programs

Our Compensation Committee relies on experience with other companies in our industry and third-party industry compensation surveys, including those compiled and periodically provided to the Compensation Committee by Radford, executive compensation data as reported in peer companies' proxy statements, and internally generated comparisons of the various elements of total compensation to peer group companies (the "**Peer Group**") to determine base salary, performance-based cash bonuses and performance-based equity awards and the portion of total compensation each element should comprise. Given our named executive officers' level of responsibility in the Company and impact on the performance of the Company, we believe that a larger portion of our named executive officers' compensation should be based on performance than that of our lower-level employees. Consistent with our compensation philosophy, we have structured each element of our compensation program as described below.

We design our base pay to provide the essential reward for an employee's work. Once base pay levels are determined, annual increases in base pay are provided to recognize an employee's expanded role and capabilities, specific performance achievements and contributions. Adjustments may also be made for changes in comparable peer company compensation levels in order to remain competitive to attract and retain employees.

We also utilize annual cash bonuses to compensate employees for the achievement of corporate objectives as well as an employee's outstanding results while allowing us to remain competitive with other companies.

We utilize equity-based compensation to ensure that we have the ability to retain employees over a longer period of time and to provide employees with a form of reward that aligns their interests with those of our stockholders. Employees whose skills and results we deem to be critical to our long-term success are eligible to receive higher levels of equity-based compensation.

In 2018, our annual equity-based compensation to our named executive officers consisted of stock options. The annual equity awards to our then serving named executive officers, Messrs. Oki and Slebir and Dr. Varghese, and our other employees vest over a period of four years, providing a long-term incentive to our employees as they work on multi-year commercialization and drug development programs. Also, in April 2018, Messrs. Amos and Suh were granted equity awards under our 2018 Inducement Equity Incentive Plan, which also vest over a period of four years. Further, in April 2018, each of Messrs. Amos, Oki, Slebir and Suh were granted an additional option award under an equity bonus plan; the option awards vest upon satisfaction of a performance target involving the Company obtaining and retaining for 30 consecutive days, a market capitalization of \$300 million or greater, within 36 months.

Mr. King served as the Company's interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as the Company's interim President from April 30, 2018 to May 30, 2018. Additionally, Mr. King has been on the Company's Board since May 24, 2017. Mr. King's equity-based compensation during 2018 was for his role as a non-employee director on the Company's Board and for his role as the Company's interim Chief Executive Officer. The two 2018 option awards to Mr. King for his role as the Company's interim Chief Executive Officer vest as follows: one award vests over a three year period and the other award was fully vested on the grant date. The 2018 option award to Mr. King for his role as a non-employee director vests monthly over a one year period.

Core benefits, such as our basic health benefits, 401(k) program, disability and life insurance plans, are designed to provide support to employees and their families and to be competitive with other companies in our industry.

Our Peer Group

For determining 2018 compensation levels, our Compensation Committee, after consulting with Radford, chose a group of 22 companies to include in the Peer Group based on their similarity to us in terms of industry focus, stage of development, market capitalization size, revenues, financial position, entity size, pharmaceutical assets, business strategy, and the geographical location of the talent pool with which we compete. The market data for the Peer Group was drawn from publicly available

documents. For 2018, the Peer Group, which was determined by the Compensation Committee after consulting with Radford, consisted of the following companies:

AcelRx Pharmaceuticals, Inc.	Fortress Biotech, Inc.
Adamis Pharmaceuticals Corporation	Juniper Pharmaceuticals, Inc.
ADMA Biologics, Inc.	MannKind Corporation
Alimera Sciences, Inc.	Neos Therapeutics, Inc.
Aralez Pharmaceuticals Inc.	Orexigen Therapeutics, Inc.
Arena Pharmaceuticals, Inc.	Pernix Therapeutics Holdings, Inc.
BioDelivery Sciences International, Inc.	Retrophin, Inc.
Corium International, Inc.	Sorrento Therapeutics, Inc.
CTI BioPharma Corp.	Teligent, Inc.
Cumberland Pharmaceuticals Inc.	Verastem, Inc.
Endocyte, Inc.	Vericel Corporation

The data on the compensation practices of the Peer Group is gathered by our searches of publicly available information. Due to the variations between companies reporting the individual and roles for which compensation is disclosed, directly comparable information is not available from each peer company with respect to each of our named executive officers. In considering the Peer Group compensation data, the Compensation Committee recognizes that executives at different companies can play significantly different roles, with different responsibilities and scope of work, even though they may hold similar titles or positions. Moreover, it is not always possible to determine the respective qualitative factors that may influence compensation from the publicly reported compensation data, such as scope of each named executive officer's responsibilities, their performance during the period under consideration or their perceived importance to their companies' business, strategy and objectives. Accordingly, the Compensation Committee looked to information about the Peer Group as one of a number of considerations in establishing executive compensation levels (as described in more detail below). In determining compensation for our named executive officers, the Compensation Committee reviewed both Peer Group information and the collective experience of the members of our Compensation Committee and executive management to establish our compensation practices.

Executive Compensation Components

We have structured each element of our compensation package as follows:

Base Salary

We determine our named executive officers' salaries based on job responsibilities and individual experience, and we benchmark the amounts we pay against comparable competitive market compensation for similar positions within our Peer Group and industry. Specifically, we utilize information obtained from our comparison of Peer Group compensation data and the annual Radford Global Life Sciences Survey (the "**Comparison Data**"). Our Compensation Committee reviews the salaries of our named executive officers annually, and our Compensation Committee grants increases in salaries based on a review of the Comparison Data and of individual performance during the prior calendar year provided that any increases are within the guidelines provided by Radford and determined by the Compensation Committee for each position. Guidelines are adjusted and modified on an annual basis based on information obtained from our review of the Comparison Data, as well as from our Compensation Committee's and management's experience and general employment market conditions for our industry and geographic area. Increases in base salary are based on individual performance as merit increases and on the Comparison Data as market increases; such increases are not automatic or guaranteed.

In January 2018, our Compensation Committee reviewed base salaries for our then serving named executive officers. The Compensation Committee considered a number of factors in setting the 2018 base salaries for our then serving named executive officers, including maximizing the value of Qsymia and STENDRA/SPEDRA, building our product development pipeline, identifying and acquiring a cash flow producing product, and managing our cost structure. In addition, the Compensation Committee reviewed the Comparison Data and the individual performance of our named executive officers during the prior calendar year. Following the Compensation Committee's review, Messrs. Oki and Slebir and Dr. Varghese received increases to their base salaries.

The table below provides the base salary for each named executive officer:

<u>Name</u>	<u>2018 Increase to Base Salary</u>	<u>2018 Base Salary (\$)</u>
John P. Amos(1)	—	545,000
Mark K. Oki	6%	383,985
Kenneth Suh(2)	—	460,000
John L. Slebir	3%	482,710
Santosh T. Varghese, M.D.	1%	426,120
Thomas B. King(3)	—	507,000

- (1) Effective April 30, 2018, Mr. Amos was appointed to serve as the Company's Chief Executive Officer.
- (2) Effective August 3, 2018, Mr. Suh was appointed to serve as the Company's President. Mr. Suh previously served as President and Chief Executive Officer of Willow Biopharma Inc., a wholly owned subsidiary of the Company.
- (3) Mr. King served as the Company's interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as the Company's interim President from April 30, 2018 to May 30, 2018.

Cash Bonus Plans

Annual Bonus Plan. We awarded cash bonuses under the Annual Bonus Plan to our eligible named executive officers based on our overall corporate performance, achievement of general corporate performance objectives established by our Board of Directors in August 2018 and individual performance. The cash bonuses are based on an end-of-year assessment by our Compensation Committee. The corporate performance and the achievement of corporate objectives determine the percent of the eligible cash bonus to be paid to each eligible named executive officer. Each eligible named executive officer's individual performance is reviewed to determine how such named executive officer's performance contributed to our overall corporate performance and achievement of corporate performance objectives. The Compensation Committee uses this information to determine the named executive officer's cash bonus award, such that the percent of the eligible bonus to be paid to a named executive officer may be increased, decreased or eliminated based on the individual performance review. Cash bonuses under the Annual Bonus Plan are awarded on a discretionary basis, and the Compensation Committee may modify, eliminate or adjust corporate objectives at any time, thereby ensuring that employees are compensated for performance.

For 2018, our corporate performance objectives as approved by our Board in August 2018, were as follows:

- achieving certain strategic goals to increase enterprise and stockholder value;
- achieving certain PANCREAZE and Qsymia commercialization goals; and

- achieving certain corporate development goals, certain compliance excellence goals and certain human resources goals.

In the Compensation Committee's opinion, the Company succeeded in meeting the following corporate objective: achieving certain strategic goals to increase enterprise and stockholder value. Further, in the Compensation Committee's opinion, the Company succeeded, in part, in meeting the following corporate objectives: achieving certain PANCREAZE and Qsymia commercialization goals and achieving certain corporate development goals, certain compliance excellence goals and certain human resources goals. Based on the achievements in 2018, the Compensation Committee determined that bonuses under the Annual Bonus Plan equaling 85% of the eligible cash bonus potential would be paid for 2018 to our eligible employees under the plan, including our eligible named executive officers.

The table below provides the target bonus for each named executive officer who participated in the Annual Bonus Plan for 2018 and the executive's actual bonus amount:

Name	2018 Target Bonus as a Percentage of Base Salary	2018 Target Bonus (\$)	2018 Maximum Bonus as a Percentage of Base Salary	2018 Maximum Bonus (\$)(1)	2018 Actual Bonus as a Percentage of Base Salary	2018 Actual Bonus (\$)
John P. Amos(2)	60%	327,000	60%	327,000	34%	186,227
Mark K. Oki	40%	153,594	40%	153,594	34%	130,555
Kenneth Suh(2)	50%	230,000	50%	230,000	28%	130,985
John L. Slebir	50%	241,355	50%	241,355	43%	205,152
Santosh T. Varghese, M.D.	40%	170,448	40%	170,448	34%	144,881
Thomas B. King(3)	—	—	—	—	—	—

- (1) The Compensation Committee may award up to 10% of base salary of additional bonus to each named executive officer based on individual performance.
- (2) Amounts for Messrs. Amos and Suh represent a pro rata portion of their respective bonus under the Annual Bonus Plan based on the time that they each served in their respective positions with the Company in 2018.
- (3) Mr. King served as the interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as the interim President from April 30, 2018 to May 30, 2018. Mr. King did not participate in the Annual Bonus Plan for 2018.

For 2019, under the Annual Bonus Plan, the Compensation Committee determined that our Chief Executive Officer, Chief Financial Officer, Senior Vice Presidents (or equivalent pay grade) and Vice Presidents (or equivalent pay grade) would be eligible to receive target and maximum cash bonuses of up to 60%, 50%, 50% and 40% of their base salaries, respectively. The table below provides the 2019

base salary and the target and maximum bonuses for each named executive officer who is participating in the Annual Bonus Plan for 2019:

Name	2019 Base Salary (\$)	2019 Target Bonus as a Percentage of Base Salary	2019 Target Bonus (\$)	2019 Maximum Bonus as a Percentage of Base Salary	2019 Maximum Bonus (\$)(1)
John P. Amos	545,000	60%	327,000	60%	327,000
Mark K. Oki	411,000	50%	205,500	50%	205,500
Kenneth Suh	473,800	50%	236,900	50%	236,900
John L. Slebir	497,200	50%	248,600	50%	248,600
Santosh T. Varghese, M.D.	438,900	40%	175,560	40%	175,560

- (1) The Compensation Committee may award up to 10% of base salary of additional bonus to each named executive officer based on individual performance.

Supplemental Cash Bonus Plan. We implemented a Supplemental Cash Bonus Plan. Under the Supplemental Cash Bonus Plan, our named executive officers, other than Mr. King, are eligible to each receive a supplemental cash bonus of \$200,000 should the Company achieve certain financial metrics in fiscal year 2019; provided, however, that the payment of the supplemental cash bonus shall be at the sole discretion of the Compensation Committee and made only to eligible officers in good standing and employed on the date of payment.

2018 Cash Bonus. In June 2018, we awarded special bonus payments to Messrs. Oki and Slebir in the amount of \$50,000 each for their performance in the first half of 2018 in connection with the acquisition of the shares of Willow Biopharma Inc. and onboarding of the members of new management, the acquisition of the product PANCREAZE® from Janssen Pharmaceuticals, Inc., and the financing with Athyrium Capital Management, L.P.

Equity Compensation

We award equity compensation to our named executive officers based on the performance of the named executive officer and guidelines provided by Radford related to each named executive officer's position in the Company. In addition, we rely on the assistance and recommendations of Radford with regards to peer practices and pay levels, as well as other relevant information regarding companies in our industry. We utilize the Comparison Data to modify and adjust our equity award guidelines. We typically base awards to newly hired employees on these guidelines, and we base awards to continuing employees on these guidelines along with an employee's performance for the prior fiscal year. In determining the amount of awards, we generally do not consider an employee's current equity ownership in the Company or the prior awards that are fully vested. Rather, we evaluate each employee's awards based on the factors described above and competitive market factors in our industry.

Our stock option awards typically vest over a four-year period subject to the continued service of the employee to the Company. Twenty-five percent of the shares typically vest on the first anniversary of the option award, with the remaining shares vesting monthly in equal amounts over the remainder of the vesting period. Our restricted stock unit awards typically vest over a four-year period subject to the continued service of the employee to the Company. Twenty-five percent of the shares typically vest on each annual anniversary of the restricted stock unit award. Unless our employees (including our named executive officers) elect otherwise, upon the vesting of the restricted stock units shares of Common Stock are sold to satisfy the tax liability due upon such vesting. We believe these vesting arrangements encourage our employees to continue service to the Company for a longer period of time and remain focused on our multi-year long-term drug development and commercialization programs.

Timing of Equity Awards. Our Compensation Committee typically makes award decisions for employees at its first meeting in each fiscal year. We believe determining annual awards at this time allow the Compensation Committee to consider a number of factors related to the stock option award and restricted stock unit award decisions, including corporate performance for the prior fiscal year, employee performance for the prior fiscal year and expectations for the upcoming fiscal year. With respect to newly hired employees, our practice is typically to make stock option awards at the first meeting of the Compensation Committee following the employee's hire date. We do not plan or time our stock option awards in coordination with the release of material non-public information for the purpose of affecting the value of executive compensation.

Allocation of Equity Compensation. In 2018, we granted stock options to purchase 1,157,668 shares of our Common Stock, of which stock options to purchase (i) a total of 718,750 shares were awarded to named executive officers (includes shares granted to Mr. King during 2018 for his role as a non-employee director on the Company's Board), representing approximately 62% of all stock option awards in 2018, and (ii) a total of 160,000 shares were awarded to directors (excludes shares granted to Mr. King during 2018 for his role as a non-employee director on the Company's Board and includes shares granted to Mr. Shaw during 2018 for his role as a consultant with the Company), representing approximately 14% of all stock option awards in 2018. Our Compensation Committee does not apply a formula for allocating stock options and restricted stock units to named executive officers. Instead, our Compensation Committee considers the role and responsibilities of the named executive officers, competitive factors, the non-equity compensation received by the named executive officers and the total number of stock options and restricted stock units to be granted in the fiscal year. Mr. King received a stock option award to purchase 15,000 shares of the Company's Common Stock for his role as a non-employee director on the Company's Board in 2018 and received stock option awards to purchase 80,000 shares of the Company's Common Stock for his role as interim Chief Executive Officer in 2018.

Type of Equity Awards. Under our 2018 Equity Incentive Plan, we may award incentive stock options, within the meaning of Section 422 of the Code to our employees, and we may award nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, performance units and performance shares to our employees, directors and consultants. In 2018, we awarded stock options to our named executive officers. In 2018, Mr. King received stock options for his role as interim Chief Executive Officer and for his role as a non-employee director on the Company's Board.

Equity Awards in 2018. In January 2018, our Compensation Committee reviewed equity compensation for our then serving named executive officers. The Compensation Committee reviewed the Comparison Data and the individual performance of such named executive officers during the prior calendar year. Following the Compensation Committee's review, all of our named executive officers, with the exception of Messrs. Amos, Suh and King, received stock options as reflected in the 2018 Grants of Plan-Based Awards Table below. In April 2018, Messrs. Amos and Suh were granted equity awards under our 2018 Inducement Equity Incentive Plan as reflected in the 2018 Grants of Plan-Based Awards Table below. Also, in April 2018, each of Messrs. Amos, Oki, Slebir and Suh were granted an additional stock option award under an equity bonus plan as reflected in the 2018 Grants of Plan-Based Awards Table below. Further, in 2018, Mr. King received stock options for his role as interim Chief Executive Officer and for his role as a non-employee director on the Company's Board as reflected in the 2018 Grants of Plan-Based Awards Table below.

Retirement Savings Plan

We maintain a 401(k) retirement savings plan for the benefit of our eligible employees. Employees may elect to contribute their compensation up to the statutorily prescribed limit. We currently match employee contributions up to a maximum of 4% of an employee's salary per pay period. In 2018, the employer-match contribution limit was \$10,800 per employee.

Change of Control Benefits

A description of the change of control benefits given to our named executive officers and a table showing potential payments upon termination or change of control of our named executive officers are set forth below under the section entitled "Potential Payments Upon Termination or Change of Control for each Named Executive Officer."

Perquisites and Other Benefits

We annually review the perquisites that our named executive officers receive. We offer short-term and long-term disability insurance plans to all of our employees, including all of our named executive officers.

Compensation Process

The Compensation Committee reviews and approves the salaries and incentive compensation of our named executive officers, executive and non-executive officers and non-employee directors and reviews and approves all new hire stock option awards to employees. In addition, the Compensation Committee approves equity awards for all employees as part of our annual performance review process. The Compensation Committee approves a pool of equity awards for employees who are not executive officers, and the Chief Executive Officer distributes this pool in his discretion and based on the performance of each individual. The agendas for meetings of the Compensation Committee are prepared by the Compensation Committee Chairman in consultation with management. Our Chief Executive Officer, Chief Financial Officer, and General Counsel typically attend the meetings of the Compensation Committee, but the Chief Executive Officer, the Chief Financial Officer and the General Counsel do not participate in deliberations relating to their own compensation. In rendering its decisions, the Compensation Committee considers the recommendations of the Chief Executive Officer, with input by the Chief Financial Officer and the General Counsel, the information regarding comparably sized companies in the biotechnology and pharmaceutical industries in the United States and its collective experience with other companies. Additionally, the Compensation Committee considers data and information provided by Radford. The Compensation Committee reviews the performance and compensation of the Chief Executive Officer and Chief Financial Officer annually, in addition to all other executive and non-executive officers.

Our Compensation Committee also works with our Chief Executive Officer and Chief Financial Officer in evaluating the financial, accounting, tax and retention implications of our various compensation programs.

Effect of Accounting and Tax Treatment on Compensation Decisions

Generally, Section 162(m) of the Code disallows a tax deduction to any publicly-held corporation for any remuneration in excess of \$1.0 million paid in any taxable year to its chief executive officer and each of its three next most highly-compensated named executive officers (other than its chief financial officer only for fiscal years prior to 2017). Remuneration in excess of \$1.0 million may be deducted if, among other things, it qualifies as "performance-based compensation" within the meaning of the Code.

The 2017 tax reform legislation removed the "performance-based compensation" exception from Section 162(m). Accordingly, awards made after November 2, 2017, generally are not eligible for the "performance-based compensation" exception and will not be deductible to the extent that they cause the compensation of the affected executive officers to exceed \$1 million in any year. Awards that were made and subject to binding written contracts in effect on November 2, 2017, are "grandfathered" under prior law and can still qualify as deductible "performance-based compensation," even if paid in future years. Our Compensation Committee will continue to monitor these awards and endeavor to ensure that they are deductible if and when paid. While the Compensation Committee considers the

deductibility of compensation as one factor in determining executive compensation, the Compensation Committee believes that it is in the best interests of our stockholders to maintain flexibility in our approach to executive compensation and to structure a program that we consider to be the most effective in attracting, motivating and retaining key employees.

Executive Time Off

All of our full-time employees, including our named executive officers, receive three to seven weeks of vacation each year, based upon the length of service. Mr. King, our former interim Chief Executive Officer from December 31, 2017 to April 30, 2018, then interim President from April 30, 2018 to May 30, 2018, was entitled to receive four weeks of vacation each year. Mr. Amos, our current Chief Executive Officer, is entitled to receive three weeks of vacation each year. Unused vacation carries over to the following year and may accumulate up to three weeks at any time. Upon termination, all employees are paid their accrued benefit that existed as of the date of such termination. Additionally, all employees receive two personal days and eight sick days each year. Unused personal days carry over to the following year and may accumulate up to two days. All employees are paid their accrued benefit of any unused personal days as of the date of termination. Sick days expire if unused as of the date of termination or the end of the calendar year.

Compensation Committee Report

The information contained in this report shall not be deemed to be "soliciting material" or "filed" with the SEC or subject to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the Company specifically incorporates it by reference into a document filed under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis with management. Based on this review and discussion, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement.

COMPENSATION COMMITTEE
OF THE BOARD OF DIRECTORS

David Y. Norton, *Chairman*
Edward A. Kangas
Herman Rosenman

EXECUTIVE AND DIRECTOR COMPENSATION TABLES

2018 Summary Compensation Table

The following table presents information for our fiscal year ended December 31, 2018 concerning the total compensation paid to or accrued for our Chief Executive Officer, former interim Chief Executive Officer, Chief Financial Officer, and each of our three other most highly compensated executive officers. We refer to these executive officers as our "named executive officers" below.

Name and Principal Position	Year	Salary \$(1)	Bonus \$(2)	Stock Awards \$(3)	Option Awards \$(3)	Non-Equity Incentive Plan Compensation \$(4)	All Other Compensation \$(5)	Total \$(6)
John P. Amos(6) Chief Executive Officer and Director	2018	365,429	—	—	532,440	186,227	10,800	1,094,896
Mark K. Oki(7) Senior Vice President, Chief Financial Officer and Chief Accounting Officer	2018	383,986	50,000	—	102,870	130,555	10,800	678,211
	2017	362,250	—	—	210,595	100,561	10,800	684,206
	2016	350,000	—	—	52,510	126,000	4,000	532,510
Kenneth Suh(8) President	2018	306,140	—	—	348,840	130,985	100,000	885,965
John L. Slebir Senior Vice President, Business Development and General Counsel and Secretary	2018	482,710	50,000	—	117,045	205,152	10,800	865,707
	2017	468,650	—	—	239,313	162,622	10,800	881,385
	2016	452,800	—	—	351,000	203,760	10,600	1,018,160
Santosh T. Varghese, M.D. Chief Medical Officer	2018	426,120	—	—	49,613	144,881	10,800	631,414
	2017	421,900	—	—	210,595	75,942	10,800	719,237
	2016	407,600	—	—	308,880	146,736	10,600	873,816
Thomas B. King(9) Former Interim Chief Executive Officer, Former Interim President and Director	2018	217,587	—	—	242,458	—	23,333	483,378
	2017	—	—	—	59,688	—	30,176	89,864

- (1) The amounts in this column include payments in respect of vacation, personal days, holidays and sick days taken during the fiscal years presented.
- (2) The amounts included in this column represent special bonus payments that were approved by the Compensation Committee in June 2018 and paid to Messrs. Oki and Slebir for their performance in the first half of 2018 in connection with the acquisition of the shares of Willow Biopharma Inc. and onboarding of the members of new management, the acquisition of the product PANCREAZE® from Janssen Pharmaceuticals, Inc., and the financing with Athyrion Capital Management, L.P.
- (3) The amounts included in this column do not reflect compensation actually received by the named executive officer but represent the grant date fair value computed in accordance with FASB ASC Topic 718. The valuation assumptions used in determining such amounts are described in Note 15 to our consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018. See also the 2018 Grants of Plan-Based Awards table below for information on option awards made in 2018.
- (4) The amounts for fiscal year 2018 in this column consist of cash bonus payments under the Annual Bonus Plan approved by the Compensation Committee in January 2019. Please see "Compensation Discussion and Analysis" above for a description of the Annual Bonus Plan.

- (5) The amounts in this column include (i) contributions made by the Company under its 401(k) Plan; (ii) reimbursement for moving expenses; and (iii) Board fees earned or paid in cash to Mr. King for his role as a non-employee director on the Company's Board, as provided in the following table:

Name	Year	401(k) Contributions (\$)	Reimbursement for Moving Expenses (\$)	Board Fees (\$)
John P. Amos	2018	10,800	—	—
Mark K. Oki	2018	10,800	—	—
Kenneth Suh	2018	—	100,000	—
John L. Slebir	2018	10,800	—	—
Santosh T. Varghese, M.D.	2018	10,800	—	—
Thomas B. King	2018	—	—	23,333

- (6) Mr. Amos was appointed to serve as the Company's Chief Executive Officer, effective April 30, 2018.
- (7) The Board of Directors of the Company authorized and approved the promotion of Mr. Oki from his role as Chief Financial Officer and Chief Accounting Officer to the role of Senior Vice President, Chief Financial Officer and Chief Accounting Officer, effective February 21, 2019.
- (8) Mr. Suh was appointed to serve as the Company's President, effective August 3, 2018. Mr. Suh previously served as President and Chief Executive Officer of Willow Biopharma Inc., a wholly owned subsidiary of the Company. Prior to Mr. Suh's appointment as the Company's President, he received compensation in Canadian dollars. Amounts shown reflect the exchange rate from Canadian dollars to U.S. dollars of 0.768, the average exchange rate over the period of such compensation.
- (9) The amount in the Option Awards column for fiscal year 2018 represents the value of stock option awards received by Mr. King for his role as interim Chief Executive Officer and for his role as a non-employee director on the Company's Board, and the amount in the Option Awards column for fiscal year 2017 represents the value of stock option awards received by Mr. King for his role as a non-employee director on the Company's Board. The amounts in the All Other Compensation column represent fees earned or paid in cash to Mr. King for his role as a non-employee director on the Company's Board. Mr. King served as the Company's interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as the Company's interim President from April 30, 2018 to May 30, 2018. Mr. King has been on the Company's Board since May 24, 2017.

2018 Grants of Plan-Based Awards

The following table provides information with regard to each grant of an award made to a named executive officer under any plan during the fiscal year ended December 31, 2018.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			All Other Stock Awards: Number of Shares of Stock or Units(#)	All Other Option Awards: Number of Securities Underlying Options(#)	Exercise or Base Price of Option Awards (\$/Sh)(2)	Grant Date Fair Value of Stock and Option Awards\$(3)
		Threshold(\$)	Target(\$)	Maximum(\$)				
John P. Amos								
Stock Options	4/30/2018	—	—	—	—	270,000	3.70	495,720
	4/30/2018	—	—	—	—	20,000	3.70	36,720
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	327,000	327,000	—	—	—	—
Mark K. Oki								
Stock Options	2/2/2018	—	—	—	—	35,000	4.00	66,150
	4/30/2018	—	—	—	—	20,000	3.70	36,720
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	153,594	153,594	—	—	—	—
Kenneth Suh								
Stock Options	4/30/2018	—	—	—	—	170,000	3.70	312,120
	4/30/2018	—	—	—	—	20,000	3.70	36,720
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	230,000	230,000	—	—	—	—
John L. Slebir								
Stock Options	2/2/2018	—	—	—	—	42,500	4.00	80,325
	4/30/2018	—	—	—	—	20,000	3.70	36,720
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	241,355	241,355	—	—	—	—
Santosh T. Varghese, M.D.								
Stock Options	2/2/2018	—	—	—	—	26,250	4.00	49,613
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	170,448	170,448	—	—	—	—
Thomas B. King(4)								
Stock Options	1/26/2018	—	—	—	—	60,000	4.60	130,380
	6/15/2018	—	—	—	—	20,000	8.40	84,260
	10/26/2018	—	—	—	—	15,000	3.53	27,818
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	—	—	—	—	—	—

- (1) The row entitled "Annual Bonus Plan" for each respective named executive officer in the table above reflects the threshold, target and maximum value of a cash bonus award to each respective named executive officer for 2018 under the Annual Bonus Plan approved by the Compensation Committee in January 2019. Please see "Compensation Discussion and Analysis" above for further detail on the maximum value of a cash bonus award to each respective named executive officer. The cash bonus award amounts actually paid under the Annual Bonus Plan to the named executive officers for 2018 are shown in the Summary Compensation Table for 2018 under the heading "Non-Equity Incentive Plan Compensation." Please see "Compensation Discussion and Analysis" above for a description of the Annual Bonus Plan.
- (2) Stock options are granted at an exercise price equal to the fair market value of the Company's Common Stock, as determined by reference to the closing price reported by The Nasdaq Global Select Market on the date of grant.

- (3) The grant date fair value of stock awards is calculated based on the market value of the Company's Common Stock on the date of grant. The grant date fair value of option awards is calculated using the Black-Scholes option pricing model on the date of the grant.
- (4) The information in the table above relates to stock option awards received by Mr. King for his role as interim Chief Executive Officer and for his role as a non-employee director on the Company's Board. Mr. King served as the Company's interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as the Company's interim President from April 30, 2018 to May 30, 2018. Mr. King has been on the Company's Board since May 24, 2017.

Outstanding Equity Awards at Fiscal Year-End

The following table presents certain information concerning the outstanding equity awards held as of December 31, 2018 by each named executive officer.

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options (#) Exercisable(1)	Number of Securities Underlying Unexercised Options (#) Unexercisable(1)	Option Exercise Price (\$)(2)	Option Expiration Date(3)	Number of Shares or Units of Stock That Have Not Vested(4)	Market Value of Shares or Units of Stock That Have Not Vested (\$)(5)
John P. Amos	—	270,000	3.70	4/30/2025		
		20,000	3.70	4/30/2025		
Mark K. Oki	17,813	4,687	12.60	10/30/2022		
	6,818	2,532	10.60	1/22/2023		
	18,449	20,051	11.20	1/27/2024		
	—	35,000	4.00	2/2/2025		
	—	20,000	3.70	4/30/2025		
Kenneth Suh	—	170,000	3.70	4/30/2025		
		20,000	3.70	4/30/2025		
John L. Slebir	375	—	63.90	9/4/2019	162	361
	16,626	—	87.40	1/21/2021		
	5,001	—	120.40	1/27/2022		
	7,001	—	123.90	1/25/2023		
	5,101	—	77.50	1/28/2021		
	24,557	83	27.40	1/23/2022		
	45,573	16,927	10.60	1/22/2023		
	20,963	22,787	11.20	1/27/2024		
	—	42,500	4.00	2/2/2025		
	—	20,000	3.70	4/30/2025		
Santosh T. Varghese, M.D.	20,001	—	242.30	4/25/2022	92	205
	5,251	—	123.90	1/25/2023		
	3,401	—	77.50	1/28/2021		
	13,840	130	27.40	1/23/2022		
	40,105	14,895	10.60	1/22/2023		
	18,448	20,052	11.20	1/27/2024		
	—	26,250	4.00	2/2/2025		
Thomas B. King(6)	6,598	5,902	11.50	7/27/2024		
	20,001	39,999	4.60	1/26/2025		
	20,000	—	8.40	6/15/2025		
	2,500	12,500	3.53	10/26/2025		

- (1) The stock options outstanding generally vest, subject to the employee's continued service to the Company, with respect to 25% of the options upon the one year anniversary of the grant date and 1/36th of the remaining options vesting each month thereafter, with full vesting occurring on the fourth anniversary of the date of grant. Mr. King's option grant on July 27, 2017 provides for monthly vesting of 1/36th of the total number of options granted commencing after May 24, 2017, subject to his continued service to the Company; Mr. King's option grant on January 26, 2018 provides for monthly vesting of 1/36th of the total number of options granted on the last day of each month commencing January 31, 2018, subject to his continued service to the Company; Mr. King's option grant on June 15, 2018 was fully vested on the grant date; and Mr. King's option grant on October 26, 2018 provides for monthly vesting of 1/12th of the total number of options granted commencing on the grant date, subject to his continued service to the Company. Messrs. Amos, Oki, Suh and Slebir

received grants of 20,000 options each on April 30, 2018 which will vest upon the Company achieving and sustaining a market capitalization of \$300 million or more for 30 consecutive days at any time on or prior to April 30, 2021, subject to their continued service to the Company.

- (2) Stock options are granted at an exercise price equal to the fair market value of our Common Stock, as determined by reference to the closing price reported by The Nasdaq Global Select Market on the date of grant.
- (3) Options granted in January 2013 or prior thereto generally expire 10 years from the date of grant, and options granted after January 2013 generally expire seven years from the date of grant.
- (4) Subject to the employee's continued service to the Company, the restricted stock unit awards outstanding vest over a four year period with 25% vesting on January 1, 2016 and an additional 1/16th vesting at the end of each calendar quarter thereafter (i.e. March 31st, June 30th, September 30th and December 31st).
- (5) The market value of unvested restricted stock units is based on the closing price of our Common Stock on The Nasdaq Global Select Market of \$2.23 per share on December 31, 2018.
- (6) The information in the table above relates to stock option awards received by Mr. King for his role as interim Chief Executive Officer and for his role as a non-employee director on the Company's Board. Mr. King served as the Company's interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as the Company's interim President from April 30, 2018 to May 30, 2018. Mr. King has been on the Company's Board since May 24, 2017.

2018 Option Exercises and Stock Vested

The following table shows the number of shares acquired pursuant to the vesting of restricted stock units by each named executive officer during the fiscal year ended December 31, 2018 and the aggregate dollar amount realized by the named executive officer upon vesting of the restricted stock units.

<u>Name</u>	<u>Stock Awards</u>	
	<u>Number of Shares Acquired on Vesting(#)</u>	<u>Value Realized on Vesting(\$)(1)</u>
John P. Amos	—	—
Mark K. Oki	—	—
Kenneth Suh	—	—
John L. Slebir	788	3,882
Santosh T. Varghese, M.D.	460	2,262
Thomas B. King	—	—

- (1) The aggregate dollar amount realized upon vesting is based on the closing price of our Common Stock on The Nasdaq Global Select Market on the vesting dates.

Potential Payments Upon Termination or Change of Control for each Named Executive Officer

Based upon a hypothetical triggering date of December 31, 2018, the quantifiable benefits for each named executive officer upon the occurrence of certain specified events are set forth in the table below.

Executive benefits and payments upon termination:	Involuntary termination not for cause or by constructive termination not in connection with a change of control(\$)	Benefits in connection with a change of control(\$)	Involuntary termination not for cause or by constructive termination in connection with a change of control(\$)	Death or Disability(\$)
John P. Amos				
Base salary	545,000	—	817,500	—
Bonus	327,000	—	490,500	—
Medical continuation	37,500	—	56,250	—
Outplacement services	—	—	—	—
Value of accelerated stock options(1)	—	—	—	—
Value of accelerated restricted stock units(2)	—	—	—	—
Mark K. Oki				
Base salary	383,985	—	575,978	—
Bonus	276,009	—	352,806	—
Medical continuation	37,500	—	56,250	—
Outplacement services	—	—	—	—
Value of accelerated stock options(1)	—	—	—	—
Value of accelerated restricted stock units(2)	—	—	—	—
Kenneth Suh				
Base salary	460,000	—	690,000	—
Bonus	230,000	—	345,000	—
Medical continuation	37,500	—	56,250	—
Outplacement services	—	—	—	—
Value of accelerated stock options(1)	—	—	—	—
Value of accelerated restricted stock units(2)	—	—	—	—
John L. Slebir				
Base salary	482,710	—	724,065	—
Bonus	433,715	—	554,393	—
Medical continuation	37,500	—	56,250	—
Outplacement services	—	—	—	—
Value of accelerated stock options(1)	—	—	—	—
Value of accelerated restricted stock units(2)	181	—	361	—
Santosh T. Varghese, M.D.				
Base salary	426,120	—	639,180	—
Bonus	285,500	—	370,724	—
Medical continuation	37,500	—	56,250	—
Outplacement services	—	—	—	—
Value of accelerated stock options(1)	—	—	—	—
Value of accelerated restricted stock units(2)	103	—	205	—
Thomas B. King(3)				
Base salary	—	—	—	—
Bonus	—	—	—	—
Medical continuation	—	—	—	—
Outplacement services	—	—	—	—
Value of accelerated stock options(1)	—	—	—	—
Value of accelerated restricted stock units(2)	—	—	—	—

- (1) Represents the aggregate value of the acceleration of vesting of the named executive officer's unvested stock options based on the product of (i) the spread between the closing price of our Common Stock on

December 31, 2018 of \$2.23 and the exercise price of the stock options, and (ii) the number of shares of our Common Stock underlying unvested stock options. Aggregate intrinsic value represents only the value for those stock options in which the exercise price of the option is less than the market value of our Common Stock on December 31, 2018. The exercise price of all outstanding stock option awards was greater than the market value of our Common Stock on December 31, 2018.

- (2) Represents the aggregate value of the acceleration of vesting of the named executive officer's unvested restricted stock units based on the product of (i) \$2.23, which is the closing price of our Common Stock on December 31, 2018, and (ii) the number of shares of our Common Stock underlying unvested restricted stock units.
- (3) Mr. King served as the Company's interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as the Company's interim President from April 30, 2018 to May 30, 2018. Mr. King does not currently have any termination or change of control benefits provided to him under any agreement.

The Compensation Committee believes that providing our named executive officers protection against a termination of employment by the Company without cause or by a named executive officer for good reason is consistent with competitive practices and will help retain our named executive officers and maintain leadership stability. The Compensation Committee also believes that providing our named executive officers with benefits upon a change of control is in the best interests of our stockholders because change of control benefits help reduce the potential reluctance of our named executive officers to pursue certain change of control transactions that create employment uncertainty. The change of control benefits are designed to help retain the Company's named executive officers and maintain a stable work environment.

Because of the so-called "parachute" tax imposed by Section 280G of the Code, we limit the change of control benefits of our named executive officers such that no taxes will be imposed under Section 280G. For our named executive officers, we have agreed that their severance benefits will be either (i) delivered in full, or (ii) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by the named executive officer on an after-tax basis of the greatest amount of severance benefits, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code.

Termination and Change of Control Benefits for our Former Interim Chief Executive Officer and Former Interim President

Our former interim Chief Executive Officer and former interim President does not currently have any termination or change of control benefits provided to him under any agreement.

Termination and Change of Control Benefits for our Other Named Executive Officers

We have entered into a Third Amended and Restated Change of Control and Severance Agreement (the "**Amended Agreement**") with each of our named executive officers, other than Mr. King.

The Amended Agreement provides that if the named executive officer's employment with the Company is terminated without Cause or by the named executive officer for Good Reason and the termination does not occur within three months before a Change of Control or 18 months after a Change of Control (as such terms are defined in the Amended Agreement) of the Company, the named executive officer will receive, subject to signing a release of claims in favor of the Company, (i) monthly severance payments equal to the monthly salary the named executive officer was receiving immediately prior to the termination date for twelve months, (ii) monthly severance payments equal to 1/12th of the named executive officer's target bonus for the fiscal year in which the termination occurs for twelve months, (iii) an additional pro rata portion of the named executive officer's target bonus for

the fiscal year in which the termination occurs calculated based on the number of months during such fiscal year the named executive officer was employed by the Company (and a prior fiscal year to the extent the bonus for such prior fiscal year has not yet been declared and paid by the Company) multiplied by the average of the actual bonus percentage payouts in the two most recent years prior to the year of termination, (iv) up to twelve months of reimbursement for premiums paid for COBRA coverage, and (vi) any then-outstanding and unvested equity awards held by the named executive officer are subject to 50% accelerated vesting.

The Amended Agreement also provides that if the named executive officer's employment with the Company is terminated by the Company without Cause or by the named executive officer for Good Reason within three months before a Change of Control or 18 months after a Change of Control, the named executive officer will receive, subject to signing a release of claims in favor of the Company, (i) monthly severance payments equal to the monthly salary the named executive officer was receiving immediately prior to the Change of Control for 18 months, (ii) monthly severance payments equal to 1/12th of the named executive officer's target bonus for the fiscal year in which the termination occurs for 18 months, (iii) an additional pro rata portion of the named executive officer's target bonus for the fiscal year in which the termination occurs calculated based on the number of months during such fiscal year the named executive officer was employed by the Company (and a prior fiscal year to the extent the bonus for such prior fiscal year has not yet been declared and paid by the Company) multiplied by the average of the actual bonus percentage payouts in the two most recent years prior to the year of termination, and (iv) up to 18 months of reimbursement for premiums paid for COBRA coverage. The Amended Agreement also provides that if the named executive officer's employment is terminated without Cause or for Good Reason within three months before a Change of Control or 18 months after a Change of Control, all equity awards granted to the named executive officer by the Company will automatically vest in full and become immediately exercisable.

For purposes of the Amended Agreement, a "Change of Control" occurs when:

- any person becomes a beneficial owner, directly or indirectly, of securities of the Company representing 15% or more of the total voting power represented by the Company's then outstanding voting securities without the approval of the Board;
- a merger or consolidation occurs, whether or not approved by the Board, other than a merger or consolidation which results in the outstanding voting securities of the Company immediately prior to the merger or consolidation to represent more than 50% of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation;
- the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets; or
- there is a change in the composition of the Board, as a result of which fewer than a majority of the directors are "Incumbent Directors." Incumbent Directors are directors who are either (i) directors of the Company as of May 1, 2018, or (ii) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination. An individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of the Company's directors is not considered an Incumbent Director.

Chief Executive Officer Pay Ratio

We identified our median employee by reviewing annual base salaries for all persons who were employed by us on December 31, 2018. We annualized the base salary of all employees who were hired in 2018 but did not work for the entire year. After identifying the median employee, we calculated the annual total compensation for this employee using the same methodology we use for our named executive officers as disclosed in the Summary Compensation Table for 2018 above. The annual total compensation of our median employee was \$131,224.

Mr. King was appointed to serve as the Company's interim Chief Executive Officer, effective December 31, 2017, and served in this role until April 30, 2018. Mr. Amos was appointed to serve as the Company's Chief Executive Officer, effective April 30, 2018. We calculated the Chief Executive Officer pay ratio using Mr. Amos' compensation. Mr. Amos' annualized total compensation for 2018 for purposes of this Chief Executive Officer pay ratio disclosure was \$1,266,811. Based on this information, for 2018, the ratio of the compensation of the Chief Executive Officer to the median employee was estimated to be 10:1. The above ratio, annual total compensation amount and annualized total compensation amount have been calculated using methodologies and assumptions permitted by SEC rules.

Director Compensation

The following table sets forth the compensation paid by us during the fiscal year ended December 31, 2018 to our non-employee directors:

Name	Year	Fees Earned or Paid in Cash\$(1)	Stock Awards\$(2)	Option Awards\$(3)	All Other Compensation \$(4)	Total\$(5)
Karen Ferrell(5)(7)	2018	10,000	—	41,726	—	51,726
Edward A. Kangas(5)(7)	2018	10,000	—	41,726	—	51,726
Thomas B. King(5)(6)(7)	2018	23,333	—	242,458	—	265,791
David Y. Norton(5)(7)	2018	93,750	—	27,818	—	121,568
Jorge Plutzky, M.D.(5)(7)	2018	48,750	—	27,818	—	76,568
Eric W. Roberts(5)(7)	2018	70,000	—	27,818	2,388	100,206
Herman Rosenman(5)(7)	2018	83,062	—	27,818	—	110,880
Allan L. Shaw(5)(7)(8)	2018	46,250	—	123,214	2,300	171,764

- (1) Under the cash compensation arrangement approved by the Board on April 29, 2016, each non-employee director will receive an annual retainer of \$40,000, with the Chairman of the Board of Directors receiving an additional \$25,000 per year, the Chairman of the Audit Committee receiving an additional \$20,000 per year, the Chairman of the Compensation Committee receiving an additional \$15,000 per year, the Chairman of the Nominating and Governance Committee receiving an additional \$10,000 per year, members of the Audit Committee (other than the Chairman of such Committee) receiving an additional \$10,000 per year, members of the Compensation Committee (other than the Chairman of such Committee) receiving an additional \$7,500 per year, members of the Nominating and Governance Committee (other than the Chairman of such Committee) receiving an additional \$5,000 per year, and members of any unchartered committees receiving an additional \$1,500 per meeting attended. The annual retainers, less any amounts previously paid under the then existing compensation arrangement, will be paid in equal quarterly installments effective as of October 30, 2015, and the per meeting fees for any unchartered committees will be paid quarterly effective as of April 29, 2016. In addition, under the changes to the cash compensation arrangement approved by the Board on January 2, 2018, certain non-employee directors will also receive the following: the Chairman of the Corporate Development Committee will receive an additional \$17,500 per year and members of the

Corporate Development Committee (other than the Chairman of such Committee) will receive an additional \$8,750 per year.

- (2) As of December 31, 2018, there were no restricted stock units outstanding for our non-employee directors.
- (3) As of December 31, 2018, the aggregate number of stock options outstanding for each non-employee director was as follows:

<u>Name</u>	<u>Stock options outstanding at 12/31/18</u>
Karen Ferrell	22,500
Edward A. Kangas	22,500
Thomas B. King	107,500
David Y. Norton	37,500
Jorge Plutzky, M.D.	37,500
Eric W. Roberts	32,500
Herman Rosenman	27,500
Allan L. Shaw	52,500

- (4) During 2018, restricted stock units held by non-employee directors of the Company vested. These restricted stock units were settled by issuing to each non-employee director shares in the amount due to the director upon vesting, less the portion required to satisfy the estimated income tax liability based on the published stock price at the close of market on the settlement date or the next trading day, which the Company issued to the non-employee director in cash. The amounts shown in this column for each non-employee director represents this cash.
- (5) Messrs. Roberts and Shaw have served as directors of the Company since September 2015, Messrs. Norton and Rosenman have served as directors of the Company since July 2013, Dr. Plutzky has served as a director of the Company since May 2013, Mr. King has served as a director of the Company since May 2017, and Ms. Ferrell and Mr. Kangas have served as directors of the Company since October 2018.
- (6) The disclosure in this table and footnotes include stock option awards granted to Mr. King for his role as the Company's interim Chief Executive Officer. Mr. King has been on the Company's Board since May 24, 2017. Mr. King served as the Company's interim Chief Executive Officer from December 31, 2017 to April 30, 2018 and as the Company's interim President from April 30, 2018 to May 30, 2018; Mr. King did not participate in the Company's cash and equity compensation arrangement for non-employee directors during these periods.
- (7) From January 2018 to February 2018, the Audit Committee consisted of Messrs. Norton, Rosenman and Shaw, with Mr. Rosenman designated as the Chairman of the Audit Committee. From February 2018 to February 2019, the Audit Committee consisted of Messrs. Norton and Rosenman and Dr. Plutzky, with Mr. Rosenman designated as the Chairman of the Audit Committee. Since February 2019, the Audit Committee has consisted of Messrs. King, Norton and Rosenman and Ms. Ferrell, with Mr. Rosenman designated as the Chairman of the Audit Committee.

From January 2018 to February 2019, the Nominating and Governance Committee consisted of Messrs. Norton and Roberts, with Mr. Norton acting as the Chairman of the Nominating and Governance Committee from January 2017 to February 2018 and designated as the Chairman of the Nominating and Governance Committee from February 2018 to February 2019. Since February 2019, the Nominating and Governance Committee has consisted of Messrs. King, Norton and

Roberts, with Mr. Norton designated as the Chairman of the Nominating and Governance Committee.

From January 2018 to February 1, 2018, the Compensation Committee consisted of Messrs. Roberts, Rosenman and Shaw, with Mr. Shaw designated as the Chairman of the Compensation Committee. From February 2, 2018 to February 22, 2018, the Compensation Committee consisted of Messrs. Roberts, and Rosenman, with Mr. Roberts acting as the Chairman of the Compensation Committee. From February 23, 2018 to February 2019, the Compensation Committee consisted of Messrs. Norton, Roberts and Rosenman, with Mr. Norton designated as the Chairman of the Compensation Committee. Since February 2019, the Compensation Committee has consisted of Messrs. Kangas, Norton and Rosenman, with Mr. Norton designated as the Chairman of the Compensation Committee.

Since becoming a chartered committee of the Board on January 2, 2018 to February 2019, the Corporate Development Committee consisted of Messrs. Norton, Roberts and Rosenman and Dr. Plutzky, with Mr. Roberts designated as the Chairman of the Corporate Development Committee. Since February 2019, the Corporate Development Committee has consisted of Messrs. King, Norton, Roberts, Rosenman and Shaw and Dr. Plutzky, with Mr. Roberts designated as the Chairman of the Corporate Development Committee.

Mr. Norton has served as the Chairman of the Board of Directors since September 2014.

- (8) The disclosure in this table and footnotes include stock option awards granted to Mr. Shaw for his role as a consultant to the Company. On February 26, 2018, Mr. Shaw entered into a Consulting Agreement, effective February 1, 2018, with the Company. Mr. Shaw has served as a member of the Company's Board since September 15, 2015, and Mr. Shaw will continue serving on the Board. Effective February 1, 2018, Mr. Shaw resigned from the Company's Audit Committee and Compensation Committee. Since February 2019, Mr. Shaw has served as a member of the Company's Corporate Development Committee. As a continuing Board member, Mr. Shaw will continue to participate in the Company's cash and equity compensation arrangement for non-employee directors.

The cash and equity compensation arrangement for the Company's non-employee directors is indicated below.

Under the cash compensation arrangement, each non-employee director will receive an annual retainer of \$40,000, with the Chairman of the Board of Directors receiving an additional \$25,000 per year, the Chairman of the Audit Committee receiving an additional \$20,000 per year, the Chairman of the Compensation Committee receiving an additional \$15,000 per year, the Chairman of the Nominating and Governance Committee receiving an additional \$10,000 per year, members of the Audit Committee (other than the Chairman of such Committee) receiving an additional \$10,000 per year, members of the Compensation Committee (other than the Chairman of such Committee) receiving an additional \$7,500 per year, members of the Nominating and Governance Committee (other than the Chairman of such Committee) receiving an additional \$5,000 per year, and members of any unchartered committees receiving an additional \$1,500 per meeting attended. The annual retainers, less any amounts previously paid under the then existing compensation arrangement, will be paid in equal quarterly installments effective as of October 30, 2015, and the per meeting fees for any unchartered committees will be paid quarterly effective as of April 29, 2016.

Under the equity compensation arrangement, following the initial appointment or election to the Board, each non-employee director will be granted as determined by the Compensation Committee of the Board (i) a non-qualified stock option to purchase 22,500 shares of Common Stock with an exercise price equal to the fair market value of our Common Stock as of the date of grant, or (ii) an equivalent number of restricted stock units to afford approximately the same value of (i), or (iii) a combination

thereof (the "**Initial Grant**"). Initial Grants vest monthly over three (3) years on each monthly anniversary date commencing on the date service as a non-employee director began and will continue to vest, subject to each such non-employee director continuing to be a Service Provider (as defined in the 2018 Plan) on the relevant vesting dates and, if stock options, have (i) a seven (7) year term and (ii) a six (6) month post-termination exercise period.

Thereafter, provided that the non-employee director is re-elected to the Board and has served as a director for at least six (6) months as of such election date, each such non-employee director will be granted on the date of the Annual Meeting of Stockholders as determined by the Compensation Committee of the Board (i) a non-qualified stock option to purchase 15,000 shares of Common Stock with an exercise price equal to the fair market value of our Common Stock as of the date of grant, or (ii) an equivalent number of restricted stock units to afford approximately the same value of (i), or (iii) a combination thereof (the "**Subsequent Grant**"). Subsequent Grants vest monthly over one (1) year following the date of grant, subject to each such non-employee director continuing to be a Service Provider on the relevant vesting dates and, if stock options, have (i) a seven (7) year term and (ii) a six (6) month post-termination exercise period.

On January 2, 2018, the Board approved changes to the cash compensation arrangement for the Board, such that certain non-employee directors will also receive the following: the Chairman of the Corporate Development Committee will receive an additional \$17,500 per year and members of the Corporate Development Committee (other than the Chairman of such Committee) will receive an additional \$8,750 per year.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information known to us with respect to beneficial ownership of our Common Stock as of April 1, 2019 by (i) each person or entity who is known by us to own beneficially more than 5% of our Common Stock; (ii) each of our directors; (iii) each of our named executive officers, as specified in the "Compensation Discussion and Analysis" section of this Proxy Statement; and (iv) all directors and executive officers as a group. Unless otherwise noted, the address of the persons or entities shown in the table is 900 E. Hamilton Avenue, Suite 550, Campbell, California, 95008.

Name	Beneficially Owned Stock(1)	
	Number of Shares	Percent
5% Holders		
Renaissance Technologies LLC(2)	644,475	6.1%
Steven Chlavin(3)	610,000	5.7%
Non-Employee Directors		
Karen Ferrell(4)	4,375	*
Edward A. Kangas(5)	4,375	*
David Y. Norton(6)	37,025	*
Jorge Plutzky, M.D.(7)	36,589	*
Eric W. Roberts(8)	33,110	*
Herman Rosenman(9)	34,107	*
Allan L. Shaw(10)	51,263	*
Named Executive Officers		
John P. Amos(11)	343,475	3.2%
Mark K. Oki(12)	71,345	*
Kenneth Suh(13)	261,141	2.5%
John L. Slebir(14)	162,839	1.5%
Santosh T. Varghese, M.D.(15)	127,988	1.2%
Thomas B. King(16)	65,418	*
All directors and executive officers as a group (14 persons)(17)	1,273,741	12.0%

* Less than 1%

- (1) Applicable percentage ownership is based on 10,637,164 shares of Common Stock outstanding as of April 1, 2019. Beneficial ownership is determined in accordance with SEC rules. In computing the number of shares beneficially owned by a person and the percentage of ownership of that person, shares of Common Stock subject to options, restricted stock units and warrants held by that person that will be exercisable/vested within 60 days of April 1, 2019 are deemed outstanding. Those shares, however, are not deemed outstanding for the purpose of computing the percentage ownership of any other person. The persons named in this table have sole voting and investment power with respect to all shares of Common Stock shown as beneficially owned by them, subject to community property laws, where applicable, and except as indicated in the other footnotes to this table.
- (2) Consists of 644,475 shares of Common Stock as to which Renaissance Technologies LLC and its affiliates (together "Renaissance Technologies") have sole voting and dispositive power. Beneficial ownership information is based on a Schedule 13G/A filed with the SEC on February 13, 2019. The address of Renaissance Technologies is 800 Third Avenue, New York, New York, 10022.

- (3) Consists of 610,000 shares of Common Stock as to which Steven Chlavin has sole voting and dispositive power. Beneficial ownership information is based on a Schedule 13G filed with the SEC on January 18, 2019. The address of Steven Chlavin is 9663 Santa Monica Blvd., Suite 214, Beverly Hills, California, 90210.
- (4) Consists of 4,375 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (5) Consists of 4,375 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (6) Consists of (i) 5,775 shares of Common Stock and (ii) 31,250 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (7) Consists of (i) 5,339 shares of Common Stock and (ii) 31,250 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (8) Consists of (i) 6,860 shares of Common Stock and (ii) 26,250 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (9) Consists of (i) 7,357 shares of Common Stock, (ii) 500 shares of Common Stock Mr. Rosenman is deemed to beneficially own that are held in an Individual Retirement Account for the benefit of Mr. Rosenman, (iii) 5,000 shares of Common Stock Mr. Rosenman is deemed to beneficially own that are held by his spouse, and (iv) 21,250 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (10) Consists of (i) 5,013 shares of Common Stock and (ii) 46,250 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (11) Consists of (i) 170,850 shares of Common Stock, (ii) 73,125 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019, and (iii) 99,500 warrants to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (12) Consists of (i) 10,000 shares of Common Stock and (ii) 61,345 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (13) Consists of (i) 46,041 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019, and (ii) 215,100 warrants to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (14) Consists of (i) 13,209 shares of Common Stock and (ii) 149,630 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (15) Consists of (i) 8,869 shares of Common Stock and (ii) 119,119 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (16) Consists of 65,418 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.
- (17) Includes (i) 696,469 options to purchase shares of Common Stock exercisable within 60 days of April 1, 2019 and (iii) 338,500 warrants to purchase shares of Common Stock exercisable within 60 days of April 1, 2019.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our executive officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file certain reports of ownership with the SEC. Such officers, directors and stockholders are also required by SEC rules to provide us with copies of all Section 16(a) forms that they file. Based solely on our review of copies of such forms received by us or on written representations from reporting persons that no other reports were required during the fiscal year ended December 31, 2018, we believe that during 2018, all of our executive officers, directors and 10% stockholders timely complied with all Section 16(a) filing requirements.

EQUITY COMPENSATION PLAN INFORMATION

Information about our equity compensation plans at December 31, 2018, that were approved by our stockholders was as follows:

<u>Plan Category</u>	<u>Number of Shares to be issued Upon Exercise of Outstanding Options and Rights</u>	<u>Weighted Average Exercise Price of Outstanding Options</u>	<u>Number of Shares Remaining Available for Future Issuance(3)</u>
Equity compensation plans approved by stockholders(1)	1,940,107	\$ 25.37	717,758
Equity compensation plans not approved by stockholders(2)	502,000	\$ 3.70	—
Total	2,442,107	\$ 20.91	717,758

- (1) Consists of four plans: our 2001 Stock Option Plan, our 2010 Equity Incentive Plan, our 2018 Equity Incentive Plan and our 1994 Employee Stock Purchase Plan.
- (2) Consists of our 2018 Inducement Equity Incentive Plan.
- (3) Includes 707,648 shares for our 2018 Equity Incentive Plan and 10,110 shares for our 1994 Employee Stock Purchase Plan.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Change of Control Agreements with Executive Officers

We previously entered into the Second Amended and Restated Change of Control and Severance Agreement that provided for certain benefits in the event of a Change of Control with each of Mark K. Oki, John L. Slebir and Santosh T. Varghese, M.D. In April 2018, we entered into the Third Amended and Restated Change of Control and Severance Agreement (the "**Amended Agreement**") with each of John P. Amos, M. Scott Oehrlein, Mark K. Oki, John L. Slebir, and Santosh T. Varghese, M.D.; such agreements superseded the Second Amended and Restated Change of Control and Severance Agreement for Messrs. Oki and Slebir and Dr. Varghese. In April 2018, our wholly own subsidiary, Willow Biopharma Inc., entered into a Change of Control and Severance Agreement with Mr. Suh. In August 2018, we entered into the Amended Agreement with Mr. Suh, on substantially the same terms as the Amended Agreement entered into with each of our other executive officers. The Amended Agreement superseded the Change of Control and Severance Agreement Mr. Suh previously entered into with Willow Biopharma Inc.

The above referenced agreements recognize that there may be periods where another company, entity or individual considers the possibility of acquiring the Company or that a change in our Board

may otherwise occur (collectively known as a Change of Control), with or without the approval of our Board. These agreements recognize that such an event may cause a distraction to employees, which may in turn cause employees to consider alternative employment opportunities. The Board determined that it was in the best interest of the Company to give such employees an incentive to continue their employment during periods when the threat or occurrence of a Change of Control may exist. The Third Amended and Restated Change of Control and Severance Agreement is discussed in more detail in the section entitled "Potential Payments Upon Termination or Change of Control for each Named Executive Officer" found elsewhere in this Proxy Statement.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. These agreements require us to indemnify such individuals, to the fullest extent permitted by Delaware law, for certain liabilities to which they may become subject as a result of their affiliation with us.

Consulting Agreement and Stock Purchase Agreement

On February 26, 2018, the Company and Allan L. Shaw entered into the Consulting Agreement, effective February 1, 2018. Mr. Shaw has served as a member of the Company's Board since September 15, 2015, and Mr. Shaw will continue serving on the Board. Effective February 1, 2018, Mr. Shaw resigned from the Company's Audit Committee and Compensation Committee. As a continuing Board member, Mr. Shaw will continue to participate in the Company's cash and equity compensation arrangement for non-employee directors. Under the Consulting Agreement, Mr. Shaw provided services to the Company relating to new commercial product candidates, the outstanding debt balances of the Company and other strategic partnering opportunities and capital structure matters. The Consulting Agreement remained in effect until June 30, 2018. Under the Consulting Agreement, Mr. Shaw received an initial payment of \$60,000 for the month of February 2018 and then \$30,000 per month starting in the month of March 2018, with any partial months being paid on a pro rata basis. Mr. Shaw was also eligible to receive cash bonuses based on certain factors related to the Company, with total cash bonuses not to exceed \$250,000.

The Consulting Agreement included that the Company would recommend at the next meeting of the Compensation Committee of the Board that Mr. Shaw be granted a stock option to purchase 30,000 shares of our Common Stock at a price per share equal to the fair market value as determined by the closing price of our Common Stock on the date of grant. On March 9, 2018, the Compensation Committee of the Board authorized and approved the grant to Mr. Shaw of a stock option to purchase 30,000 shares of our Common Stock at a price per share equal to the closing price of our Common Stock on the date of grant (\$4.90 per share). Subject to Mr. Shaw continuing to provide services under the Consulting Agreement on the relevant vesting dates, the option will vest as follows: 5,000 shares subject to the option will vest on the date of grant, 5,000 shares subject to the option will vest on June 30, 2018, 10,000 shares subject to the option will vest on December 31, 2018 and 10,000 shares subject to the option will vest on June 30, 2019. The option has a seven (7) year term from the date of grant and an exercise period equal to six (6) months from the date Mr. Shaw ceases to be a Service Provider (as defined in the Company's 2010 Plan).

In addition, Mr. Shaw was eligible to receive an additional fully vested stock option to purchase 10,000 shares of our Common Stock at the discretion of the Board. On June 15, 2018, the Compensation Committee of the Board authorized and approved the grant to Mr. Shaw of a fully vested stock option to purchase 10,000 shares of our Common Stock at a price per share equal to the closing price of our Common Stock on the date of grant (\$8.40 per share). The option has a seven (7) year term from the date of grant and an exercise period equal to six (6) months from the date Mr. Shaw ceases to be a Service Provider (as defined in the Company's 2010 Plan).

On April 30, 2018, the Company, Willow Biopharma Inc. ("**Willow**") and the shareholders of Willow, including Mr. Amos, Mr. Oehrlein and Mr. Suh (the "**Willow Sellers**"), entered into a stock purchase agreement (the "**Stock Purchase Agreement**"). Pursuant to the Stock Purchase Agreement, the Company agreed to acquire all of the equity interest of Willow (the "**Willow Acquisition**"). Under the Stock Purchase Agreement, the Company issued to the Willow Sellers, warrants (the "**Willow Warrants**") to purchase, in aggregate, up to 357,000 shares of our Common Stock (the "**Willow Warrant Shares**") with a per share exercise price of \$3.70, the closing price of our Common Stock on April 30, 2018. The Willow Warrants are immediately exercisable, subject to adjustment, and will expire seven years after the date of issuance. The Willow Acquisition closed on April 30, 2018. In 2018, the Company paid \$1,549,613 to the Willow Sellers for fees and reimbursements relating to the Willow Acquisition, including \$527,271 to Mr. Amos, \$202,218 to Mr. Oehrlein and \$505,300 to Mr. Suh in April 2018.

Other than the above mentioned agreements, we have not been a party to any transaction or series of similar transactions in which the amount involved exceeded or will exceed \$120,000 and in which any current director, executive officer, holder of more than 5% of our Common Stock or entities affiliated with them had or will have a material interest.

Review, Approval or Ratification of Transactions with Related Parties

We, or one of our subsidiaries, may occasionally enter into transactions with certain "related parties." Related parties include our executive officers, directors, or 5% or more beneficial owners of our Common Stock and immediate family members of these persons. We refer to transactions in which the related party has a direct or indirect material interest as "related party transactions." Each related party transaction must follow the procedures set forth in the Company's Code of Business Conduct and Ethics and be reviewed and approved by the Audit Committee prior to the entering into of such transaction.

The Audit Committee considers all relevant factors when determining whether to approve a related party transaction including, without limitation, the following:

- the extent of the related party's interest in the related party transaction;
- the aggregate value of the related party transaction;
- the benefit to the Company; and
- whether the transaction involves the provision of goods or services to the Company that are available from unaffiliated third parties and whether the transaction is on terms and made under circumstances that are at least as favorable to the Company as would be available in comparable transactions with or involving unaffiliated third parties.

STOCKHOLDER PROPOSALS FOR 2020 ANNUAL MEETING

Under the rules of the SEC, eligible stockholders may submit proposals for inclusion in the Proxy Statement for our 2020 Annual Meeting of Stockholders, or 2020 Annual Meeting. In order for a proposal to be included in our Proxy Materials for a particular meeting, the person submitting the proposal must own, beneficially or of record, at least 1% or \$2,000 in market value, whichever is less, of shares of our Common Stock entitled to be voted on that proposal at the meeting, and must have held those shares for a period of at least one year and continue to hold them through the date of the meeting. Also, the proposal and the stockholder submitting it must comply with certain other eligibility and procedural requirements contained in rules of the SEC.

Pursuant to Rule 14a-8 under the Exchange Act, stockholders may present proper proposals for inclusion in the Proxy Statement and for consideration at our next annual meeting of stockholders. To

be eligible for inclusion in the 2020 Proxy Statement, your proposal must be received by us no later than December 25, 2019, based on an anticipated Proxy Statement mailing date of April 23, 2019 and must otherwise comply with Rule 14a-8. While our Board will consider stockholder proposals, we reserve the right to omit from the Proxy Statement stockholder proposals that we are not required to include under the Exchange Act, including Rule 14a-8.

Under our Amended and Restated Bylaws, as further amended, in order to nominate a director or bring any other business before the stockholders at the 2020 Annual Meeting that will not be included in our Proxy Statement, the proposal must be received by the Company's Corporate Secretary on or between February 6, 2020 and March 7, 2020.

In accordance with our Amended and Restated Bylaws, as further amended, the required notice of a nomination for director must include, among other things, (1) the name, age, business address and residence address of the nominee, (2) the principal occupation or employment of such nominee, (3) the class and number of VIVUS shares that are beneficially owned by such nominee, (4) a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the stockholder, and (5) any other information relating to such nominee that is required to be disclosed in the solicitations for Proxies for elections of directors or is otherwise required pursuant to Regulation 14A under the Exchange Act (including such person's written consent to being named in the Proxy Statement as a nominee and to serving as a director if elected). Only persons who are nominated in the manner described in our Amended and Restated Bylaws, as further amended, are eligible to be elected as directors at meetings of our stockholders, and the Chairman of a meeting of our stockholders may refuse to acknowledge a nomination that is not made in compliance with the required notice procedure.

All proposals for inclusion in the 2020 Proxy Statement or consideration at the 2020 Annual Meeting must set forth the information required by our Amended and Restated Bylaws, as further amended, a copy of which is available upon written request to VIVUS, Inc., 900 E. Hamilton Avenue, Suite 550, Campbell, CA 95008, Attention: Corporate Secretary. Proposals should be addressed to:

Corporate Secretary
VIVUS, Inc.
900 E. Hamilton Avenue, Suite 550
Campbell, CA 95008

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for Proxy Statements and Annual Reports with respect to two or more stockholders sharing the same address by delivering a single Notice of Internet Availability of Proxy Materials or a single set of Proxy Materials addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

A single Notice of Internet Availability of Proxy Materials or a single set of Proxy Materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. If you share an address with another stockholder and have received only one Notice of Internet Availability of Proxy Materials or one set of this year's Proxy Materials and you wish to receive a separate copy, please notify us in writing to our Corporate Secretary at VIVUS, Inc., 900 E. Hamilton Avenue, Suite 550, Campbell, CA 95008, or via phone at 650-934-5200 and we will deliver a separate copy to you promptly.

Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent thereto. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate Notice of Internet Availability of Proxy Materials or a separate set of printed Proxy Materials, please notify your broker. Stockholders who received multiple copies of the Notice of Internet Availability of Proxy Materials or multiple sets of Proxy Materials at their address and would like to request "householding" of their communications should contact their broker.

OTHER MATTERS

Other than matters and proposals described in this Proxy Statement, we have not received valid notice of any other business to be acted upon at the Annual Meeting. If any other matters properly come before the Annual Meeting, it is the intention of the persons named in the Proxy Card or Voting Instruction Form to vote the shares they represent as the Board may recommend.

It is important that your stock be represented at the Annual Meeting, regardless of the number of shares that you hold. You are, therefore, urged to execute and return the Proxy Card or Voting Instruction Form at your earliest convenience.

The Board of Directors
Campbell, California
April 17, 2019

VIVUS, INC.

2018 EQUITY INCENTIVE PLAN
(Share numbers adjusted for 1-for-10 reverse stock split effected September 10, 2018)1. *Purposes of the Plan.* The purposes of this Plan are:

- to attract and retain the best available personnel for positions of substantial responsibility,
- to provide incentives to individuals who perform services to the Company, and
- to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units and Performance Shares.

2. *Definitions.* As used herein, the following definitions will apply:

(a) "*Administrator*" means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 of the Plan.

(b) "*Affiliate*" means any corporation or any other entity (including, but not limited to, partnerships and joint ventures) controlling, controlled by, or under common control with the Company.

(c) "*Applicable Laws*" means the legal and regulatory requirements relating to the administration of equity-based awards, including but not limited to the related issuance of shares of Common Stock, including but not limited to, under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any non-U.S. country or jurisdiction where Awards are, or will be, granted under the Plan.

(d) "*Award*" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares.

(e) "*Award Agreement*" means the written or electronic agreement setting forth the terms and provisions applicable to each Award granted under the Plan. The Award Agreement is subject to the terms and provisions of the Plan.

(f) "*Board*" means the Board of Directors of the Company.

(g) "*Change in Control*" means the occurrence of any of the following events:

(i) *Change in Ownership of the Company.* A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("*Person*"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than fifty percent (50%) of the total voting power of the stock of the Company; provided, however, that for purposes of this subsection (i), the acquisition of additional stock by any one Person, who is considered to own more than fifty percent (50%) of the total voting power of the stock of the Company will not be considered a Change in Control. Further, if the stockholders of the Company immediately before such change in ownership continue to retain immediately after the change in ownership, in substantially the same proportions as their ownership of shares of the Company's voting stock immediately prior to the change in ownership, direct or indirect beneficial ownership of fifty percent (50%) or more of the total voting power of the stock of the Company or of the

ultimate parent entity of the Company, such event shall not be considered a Change in Control under this subsection (i). For this purpose, indirect beneficial ownership shall include, without limitation, an interest resulting from ownership of the voting securities of one or more corporations or other business entities which own the Company, as the case may be, either directly or through one or more subsidiary corporations or other business entities; or

(ii) *Change in Effective Control of the Company.* If the Company has a class of securities registered pursuant to Section 12 of the Exchange Act, a change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this subsection (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) *Change in Ownership of a Substantial Portion of the Company's Assets.* A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such Person) assets from the Company that have a total gross fair market value equal to or more than fifty percent (50%) of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, fifty percent (50%) or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, fifty percent (50%) or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least fifty percent (50%) of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this Section 2(g), persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing, a transaction shall not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Section 409A of the Code, as it has been and may be amended from time to time, and any proposed or final Treasury Regulations and Internal Revenue Service guidance that has been promulgated or may be promulgated thereunder from time to time.

Further and for the avoidance of doubt, a transaction shall not constitute a Change in Control if: (i) its sole purpose is to change the jurisdiction of the Company's incorporation, or (ii) its sole purpose is to create a holding company that shall be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(h) "*Code*" means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or Treasury Regulation thereunder will include such section or regulation, any valid regulation or other official applicable guidance promulgated under such section, and any

comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

(i) "*Committee*" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board, or a duly authorized committee of the Board, in accordance with Section 4 hereof.

(j) "*Common Stock*" means the common stock of the Company.

(k) "*Company*" means VIVUS, Inc., a Delaware corporation, or any successor thereto.

(l) "*Consultant*" means any consultant, independent contractor, advisor, or other natural person who provides services to the Company or its Affiliates, but who is neither an Employee nor a Director, provided the services (i) are not in connection with the offer or sale of securities in a capital-raising transaction, and (ii) do not directly promote or maintain a market for the Company's securities, in each case, within the meaning of Form S-8 promulgated under the Securities Act of 1933, as amended (the "*Securities Act*"), and provided, further, that a Consultant will include only those persons to whom the issuance of Shares may be registered under Form S-8 promulgated under the Securities Act.

(m) "*Director*" means a member of the Board.

(n) "*Disability*" means total and permanent disability as defined in Section 22(e)(3) of the Code, provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

(o) "*Employee*" means any person, including Officers and Directors, employed by the Company or its Affiliates. Neither service as a Director nor payment of a director's fee by the Company will be sufficient to constitute "employment" by the Company.

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

(q) "*Exchange Program*" means a program under which (i) outstanding Options or Stock Appreciation Rights are surrendered or cancelled in exchange for awards of the same type (which may have higher or lower exercise prices and different terms), awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding Option or Stock Appreciation Right is reduced. For the avoidance of doubt, as set forth in Section 4(b)(viii), the Administrator may not implement an Exchange Program.

(r) "*Fair Market Value*" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the New York Stock Exchange, the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or, the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or, if no bids and asks were reported on that date, as applicable, on the last trading date such bids and asks are reported),

as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

(s) "*Fiscal Year*" means the fiscal year of the Company.

(t) "*Incentive Stock Option*" means an Option that by its terms qualifies and is otherwise intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(u) "*Inside Director*" means a Director who is an Employee.

(v) "*Nonstatutory Stock Option*" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(w) "*Officer*" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(x) "*Option*" means a stock option granted pursuant to the Plan.

(y) "*Outside Director*" means a Director who is not an Employee.

(z) "*Parent*" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(aa) "*Participant*" means the holder of an outstanding Award.

(bb) "*Performance Goals*" will have the meaning set forth in Section 11 of the Plan.

(cc) "*Performance Period*" means any Fiscal Year of the Company or such longer or shorter period as determined by the Administrator in its sole discretion.

(dd) "*Performance Share*" means an Award denominated in Shares which may be earned in whole or in part upon attainment of performance goals (including without limitation any Performance Goals) or other vesting criteria as the Administrator may determine pursuant to Section 10.

(ee) "*Performance Unit*" means an Award which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine and which may be settled for cash, Shares or other securities or a combination of the foregoing pursuant to Section 10.

(ff) "*Period of Restriction*" means the period during which the transfer of Shares of Restricted Stock are subject to restrictions and therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.

(gg) "*Plan*" means this 2018 Equity Incentive Plan, as amended.

(hh) "*Restricted Stock*" means Shares issued pursuant to a Restricted Stock award under Section 8 of the Plan, or issued pursuant to the early exercise of an Option.

(ii) "*Restricted Stock Unit*" means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 9. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

(jj) "*Rule 16b-3*" means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

(kk) "Section 16(b)" means Section 16(b) of the Exchange Act.

(ll) "Service Provider" means an Employee, Director or Consultant.

(mm) "Share" means a share of the Common Stock, as adjusted in accordance with Section 15 of the Plan.

(nn) "Stock Appreciation Right" means an Award, granted alone or in connection with an Option, that pursuant to Section 7 is designated as a Stock Appreciation Right.

(oo) "Subsidiary" means a "subsidiary corporation", whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan.

(a) Subject to the provisions of Section 15 of the Plan, the maximum aggregate number of Shares that may be issued under the Plan is equal to the sum of (i) 1,353,375 Shares, and (ii) any Shares subject to stock options or similar awards granted under the Company's 2010 Equity Incentive Plan (the "2010 Plan") or the Company's 2001 Stock Option Plan (the "2001 Plan" and, together with the 2010 Plan, the "Prior Plans") that expire or otherwise terminate without having been exercised in full and Shares issued pursuant to awards granted under the Prior Plans that are forfeited to or repurchased by the Company (up to a maximum of 1,897,382 Shares pursuant to clause (ii)). The Shares may be authorized, but unissued, or reacquired Common Stock. For the avoidance of doubt, Shares reacquired by the Company on an established stock exchange or national market system on which the Common Stock is listed through the use of cash proceeds received by the Company from the exercise of Options or options that were granted under a Prior Plan or the Company's 2018 Inducement Equity Incentive Plan shall not be added to the Shares authorized for grant or issuance under this Section 3.

(b) *Full Value Awards.* Any Shares subject to Awards of Restricted Stock, Restricted Stock Units, Performance Units, and Performance Shares will be counted against the numerical limits of this Section 3 as 1.22 Shares for every one Share subject thereto. Further, if Shares acquired pursuant to any such Award are forfeited or repurchased by the Company and would otherwise return to the Plan pursuant to Section 3(c), 1.22 times the number of Shares so forfeited or repurchased will return to the Plan and will again become available for issuance.

(c) *Lapsed Awards.* If an Award expires or becomes unexercisable without having been exercised in full or, with respect to an Award of Restricted Stock Units, Performance Units or Performance Shares, is terminated due to failure to vest, the unpurchased Shares (or for Awards other than Options or Stock Appreciation Rights, the unissued Shares) which were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). Upon the exercise of a Stock Appreciation Right settled in Shares, the gross number of Shares covered by the portion of the Award so exercised will cease to be available under the Plan. Shares that have actually been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan; provided, however, that if Shares issued pursuant to Awards of Restricted Stock, Restricted Stock Units, Performance Shares or Performance Units are repurchased by the Company or are forfeited to the Company due to failure to vest, such Shares will become available for future grant under the Plan. Shares used to pay the exercise or purchase price of an Award and/or to satisfy the tax withholding obligations related to an Award will not become available for future grant or sale under the Plan. To the extent an Award under the Plan is paid out in cash rather than Shares, such cash payment will not result in reducing the number of Shares available for issuance under the Plan. Notwithstanding the foregoing and, subject to adjustment as provided in Section 15, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a), plus, to the extent allowable under Section 422 of the Code and the

Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan under this Section 3(c).

(d) *Share Reserve.* The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as will be sufficient to satisfy the requirements of the Plan.

4. *Administration of the Plan.*

(a) *Procedure.*

(i) *Multiple Administrative Bodies.* Different Committees with respect to different groups of Service Providers may administer the Plan.

(ii) *Rule 16b-3.* To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder will be structured to satisfy the requirements for exemption under Rule 16b-3.

(iii) *Other Administration.* Other than as provided above, the Plan will be administered by (A) the Board or (B) a Committee, which committee will be constituted to satisfy Applicable Laws.

(b) *Powers of the Administrator.* Subject to the terms and provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator will have the authority, in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Awards may be granted hereunder;

(iii) to determine the number of Shares to be covered by each Award granted hereunder;

(iv) to approve forms of Award Agreements for use under the Plan;

(v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Award or the Shares relating thereto, based in each case on such factors as the Administrator will determine;

(vi) to construe and interpret the terms of the Plan and Awards granted pursuant to the Plan;

(vii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable non-U.S. laws or for qualifying for favorable tax treatment under applicable non-U.S. laws;

(viii) to modify or amend each Award (subject to Section 20(c) of the Plan), including but not limited to the discretionary authority to extend the post-termination exercisability period of Awards and to extend the maximum term of an Option (subject to Section 6(d) regarding Incentive Stock Options). Notwithstanding the previous sentence, the Administrator may not implement an Exchange Program;

(ix) to allow Participants to satisfy tax withholding obligations in such manner as prescribed in Section 16;

(x) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;

(xi) to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that would otherwise be due to such Participant under an Award pursuant to such procedures as the Administrator may determine; and

(xii) to make all other determinations deemed necessary or advisable for administering the Plan.

(c) *Effect of Administrator's Decision.* The Administrator's decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards and will be given the maximum deference permitted by Applicable Laws.

(d) *No Liability.* Under no circumstances shall the Company, its Affiliates, the Administrator, or the Board incur liability for any indirect, incidental, consequential or special damages (including lost profits) of any form incurred by any person, whether or not foreseeable and regardless of the form of the act in which such a claim may be brought, with respect to the Plan or the Company's, its Affiliates', the Administrator's or the Board's roles in connection with the Plan.

5. *Eligibility.* Nonstatutory Stock Options, Restricted Stock, Restricted Stock Units, Stock Appreciation Rights, Performance Units, and Performance Shares may be granted to Service Providers. Incentive Stock Options may be granted only to Employees of the Company or any Parent or Subsidiary of the Company.

6. *Stock Options.*

(a) *Grant of Stock Options.* Subject to the terms and provisions of the Plan, an Option may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds one hundred thousand U.S. dollars (\$100,000), such Options will be treated as Nonstatutory Stock Options. For purposes of this Section 6(a), Incentive Stock Options will be taken into account in the order in which they were granted. The Fair Market Value of the Shares will be determined as of the time the Option with respect to such Shares is granted.

(b) *Exercise Price and Other Terms.* The Administrator, subject to the terms and provisions of the Plan, will have complete discretion to determine the terms and conditions of Options granted under the Plan, provided, however, that the per Share exercise price for the Shares to be issued pursuant to exercise of an Option will not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date of grant. In addition, in the case of an Incentive Stock Option granted to an Employee of the Company or any Parent or Subsidiary of the Company who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant. Notwithstanding the foregoing provisions of this Section 6(b), Options may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code and the Treasury Regulations thereunder.

(c) *Option Agreement.*

(i) *Terms and Conditions.* Each Option grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Option, the acceptable forms of consideration for exercise (which may include any form of consideration permitted by Section 6(c)(ii), the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(ii) *Form of Consideration.* The Administrator will determine the acceptable form(s) of consideration for exercising an Option, including the method of payment, to the extent permitted by Applicable Laws. In the case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration to the extent permitted by Applicable Laws may include, but is not limited to:

(1) cash;

(2) check;

(3) other Shares which have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which said Option will be exercised and provided that accepting such Shares, in the sole discretion of the Administrator, will not result in any adverse accounting consequences to the Company;

(4) by net exercise;

(5) consideration received by the Company under a broker-assisted (or other) cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan;

(6) a reduction in the amount of any Company liability to the Participant, including any liability attributable to the Participant's participation in any Company-sponsored deferred compensation program or arrangement;

(7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws; or

(8) any combination of the foregoing methods of payment.

(d) *Term of Option.* An Option granted under the Plan will expire upon the date determined by the Administrator, in its sole discretion, and set forth in the Award Agreement; provided, however, that the term will be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be five (5) years from the date of grant or such shorter term as may be provided in the Award Agreement.

(e) *Exercise of Option.*

(i) *Procedure for Exercise; Rights as a Stockholder.* Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (i) notice of exercise (in such form as the Administrator specifies from time to time) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised (together with applicable tax withholdings). Full payment may consist of any

consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant, in the name of the Participant and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to an Option, notwithstanding the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. No dividend or other right for which the record date is prior to the date the Shares subject to an Option are issued will be paid or payable, accrue, or cause any adjustment to an Option, except as provided in Section 15 of the Plan.

Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(ii) *Termination of Relationship as a Service Provider.* If a Participant ceases to be a Service Provider, other than upon the Participant's termination as the result of the Participant's death or Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for three (3) months following the Participant's termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iii) *Disability of Participant.* If a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for twelve (12) months following the Participant's termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iv) *Death of Participant.* If a Participant dies while a Service Provider, the Option may be exercised following the Participant's death within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of death (but in no event may the Option be exercised later than the expiration of the term of such Option as set forth in the Award Agreement), by the Participant's designated beneficiary, provided such beneficiary has been designated prior to Participant's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Participant, then such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution. In the absence of a specified time in the Award Agreement, the Option will remain exercisable for twelve (12) months following Participant's death. Unless otherwise provided by the Administrator, if at the time of death Participant is not vested as to

his or her entire Option, the Shares covered by the unvested portion of the Option will immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(v) *Other Termination.* A Participant's Award Agreement also may provide that if the exercise of the Option following the termination of Participant's status as a Service Provider (other than upon the Participant's death or Disability) would result in liability under Section 16(b), then the Option will terminate on the earlier of (A) the expiration of the term of the Option set forth in the Award Agreement, or (B) the tenth (10th) day after the last date on which such exercise would result in such liability under Section 16(b). Finally, a Participant's Award Agreement may also provide that if the exercise of the Option following the termination of the Participant's status as a Service Provider (other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of Shares would violate the registration requirements under the Securities Act, then the Option will terminate on the earlier of (A) the expiration of the term of the Option, or (B) the expiration of a period of three (3) months after the termination of the Participant's status as a Service Provider during which the exercise of the Option would not be in violation of such registration requirements.

7. *Stock Appreciation Rights.*

(a) *Grant of Stock Appreciation Rights.* Subject to the terms and provisions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.

(b) *Number of Shares.* Subject to the terms and provisions of the Plan, the Administrator will have complete discretion to determine the number of Stock Appreciation Rights granted to any Service Provider.

(c) *Exercise Price and Other Terms.* The Administrator, subject to the terms and provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan, provided, however, that the exercise price will not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date of grant. Notwithstanding the foregoing provisions of this Section 7(c), Stock Appreciation Rights may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code and the Treasury Regulations thereunder.

(d) *Stock Appreciation Right Agreement.* Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock Appreciation Right, the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(e) *Expiration of Stock Appreciation Rights.* A Stock Appreciation Right granted under the Plan will expire upon the date determined by the Administrator, in its sole discretion, and set forth in the Award Agreement; provided, however, that the term will be no more than ten (10) years from the date of grant thereof. Notwithstanding the foregoing, the rules of Section 6(e) relating to exercise and dividends also will apply to Stock Appreciation Rights.

(f) *Payment of Stock Appreciation Right Amount.* Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined by multiplying:

- (i) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; times

- (ii) The number of Shares with respect to which the Stock Appreciation Right is exercised.

At the discretion of the Administrator, the payment upon Stock Appreciation Right exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

8. *Restricted Stock.*

(a) *Grant of Restricted Stock.* Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

(b) *Restricted Stock Agreement.* Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify any Period of Restriction, the number of Shares granted, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

(c) *Transferability.* Except as provided in this Section 8, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction.

(d) *Other Restrictions.* The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.

(e) *Removal of Restrictions.* Except as otherwise provided in this Section 8, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of any Period of Restriction or at such other time as the Administrator may determine. The Administrator, in its sole discretion, may reduce or waive any restrictions for such Award and may accelerate the time at which any restrictions will lapse or be removed.

(f) *Voting Rights.* During the Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

(g) *Dividends and Other Distributions.* During the Period of Restriction, no dividends and other distributions for which the record date occurs during the Period of Restriction will be paid or payable, accrue, or cause any adjustment with respect to the Shares of Restricted Stock to which the Period of Restriction applies, except as provided in Section 15 of the Plan.

(h) *Return of Restricted Stock to Company.* On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

9. *Restricted Stock Units.*

(a) *Grant.* Subject to the terms and provision of the Plan, Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. After the Administrator determines that it will grant Restricted Stock Units under the Plan, it will advise the Participant in an Award Agreement of the terms, conditions, and restrictions related to the grant, including the number of Restricted Stock Units.

(b) *Vesting Criteria and Other Terms.* The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, divisional, business unit or

individual goals (including without limitation continued employment or service), applicable federal or state securities laws, or any other basis determined by the Administrator in its discretion.

(c) *Earning Restricted Stock Units.* Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as determined by the Administrator. Notwithstanding the foregoing, at any time after the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout and may accelerate the time at which any restrictions will lapse or be removed.

(d) *Form and Timing of Payment.* Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) set forth in the Award Agreement or as otherwise provided in the applicable Award Agreement or as required by Applicable Laws. The Administrator, in its sole discretion, may pay earned Restricted Stock Units in cash, Shares, or a combination thereof. Shares represented by Restricted Stock Units that are fully paid in cash will not reduce the number of Shares available for grant under the Plan.

(e) *Dividends and Other Distributions.* No dividends and other distributions for which the record date occurs (i) while the Shares subject to Restricted Stock Units are unvested will be paid or payable, accrue, or cause any adjustment with respect to such unvested Restricted Stock Units, or (ii) before the date that the Shares subject to vested Restricted Stock Units are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), unless the Administrator determines otherwise, will be paid or payable, accrue or cause any adjustment with respect to such Restricted Stock Units, in each case except as provided in Section 15 of the Plan.

(f) *Cancellation.* On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

10. *Performance Units and Performance Shares.*

(a) *Grant of Performance Units/Shares.* Performance Units and Performance Shares may be granted to Service Providers at any time and from time to time, as will be determined by the Administrator, in its sole discretion. Subject to the terms and provisions of the Plan, the Administrator will have complete discretion in determining the number of Performance Units and Performance Shares granted to each Participant.

(b) *Value of Performance Units/Shares.* Each Performance Unit will have an initial value that is established by the Administrator on or before the date of grant. Each Performance Share will have an initial value equal to the Fair Market Value of a Share on the date of grant.

(c) *Performance Objectives and Other Terms.* The Administrator will set any performance objectives or other vesting provisions (including, without limitation, continued status as a Service Provider) in its discretion which, depending on the extent to which they are met, will determine the number or value of Performance Units/Shares that will be paid out to the Service Providers. The time period during which any performance objectives or other vesting provisions must be met will be called the "Performance Period." Each Award of Performance Units/Shares will be evidenced by an Award Agreement that will specify any Performance Period, and such other terms and conditions as the Administrator, in its sole discretion, will determine. The Administrator may set performance objectives based upon the achievement of Company-wide, divisional, business unit or individual goals (including without limitation continued employment or service), applicable federal or state securities laws, or any other basis determined by the Administrator in its discretion.

(d) *Earning of Performance Units/Shares.* After the applicable Performance Period has ended, the holder of Performance Units/Shares will be entitled to receive a payout of the number

of Performance Units/Shares earned by the Participant over the Performance Period, to be determined as a function of the extent to which the corresponding performance objectives or other vesting provisions have been achieved. After the grant of a Performance Unit/Share, the Administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such Performance Unit/Share and may accelerate the time at which any restrictions will lapse or be removed.

(e) *Form and Timing of Payment of Performance Units/Shares.* Payment of earned Performance Units/Shares will be made as soon as practicable after the expiration of the applicable Performance Period, or as otherwise provided in the applicable Award Agreement or as required by Applicable Laws. The Administrator, in its sole discretion, may pay earned Performance Units/Shares in the form of cash, in Shares (which have an aggregate Fair Market Value equal to the value of the earned Performance Units/Shares at the close of the applicable Performance Period) or in a combination thereof.

(f) *Dividends and Other Distributions.* No dividends and other distributions for which the record date occurs (i) while the Shares subject to Performance Units/Shares are unvested will be paid or payable, accrue, or cause any adjustment with respect to such unvested Performance Units/Shares, or (ii) before the date that the Shares subject to vested Performance Units/Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), unless the Administrator determines otherwise, will be paid or payable, accrue or cause any adjustment with respect to such Performance Units/Shares, in each case except as provided in Section 15 of the Plan.

(g) *Cancellation of Performance Units/Shares.* On the date set forth in the Award Agreement, all unearned or unvested Performance Units/Shares will be forfeited to the Company, and again will be available for grant under the Plan.

11. *Performance Awards.* The granting and/or vesting of Awards may be made subject to the attainment of performance goals relating to one or more business criteria and may provide for a targeted level or levels of achievement ("*Performance Goals*") including: (i) attainment of research and development milestones, (ii) bookings, (iii) business divestitures and acquisitions, (iv) cash flow, (v) cash position, (vi) contract awards or backlog, (vii) customer renewals, (viii) customer retention rates from an acquired company, business unit or division, (ix) earnings (which may include earnings before interest and taxes, earnings before taxes and net earnings), (x) earnings per Share, (xi) expenses, (xii) gross margin, (xiii) growth in stockholder value relative to the moving average of the S&P 500 Index or another index, (xiv) internal rate of return, (xv) market share, (xvi) net income, (xvii) net profit, (xviii) net sales, (xix) new product development, (xx) new product invention or innovation, (xxi) number of customers, (xxii) operating cash flow, (xxiii) operating expenses, (xxiv) operating income, (xxv) operating margin, (xxvi) overhead or other expense reduction, (xxvii) product defect measures, (xxviii) product release timelines, (xxix) productivity, (xxx) profit, (xxxi) return on assets, (xxxii) return on capital, (xxxiii) return on equity, (xxxiv) return on investment, (xxxv) return on sales, (xxxvi) revenue, (xxxvii) revenue growth, (xxxviii) sales results, (xxxix) sales growth, (xl) stock price, (xli) time to market, (xlii) total stockholder return, (xliii) working capital. Any criteria used may be (A) measured in absolute terms, (B) measured in terms of growth, (C) compared to another company or companies, (D) measured against the market as a whole and/or according to applicable market indices, (E) measured against the performance of the Company as a whole or a segment of the Company and/or (F) measured on a pre-tax or post-tax basis (if applicable). Further, any Performance Goals may be used to measure the performance of the Company as a whole or a business unit or other segment of the Company, or one or more product lines or specific markets and may be measured relative to a peer group or index. The Performance Goals may differ from Participant to Participant and from Award to Award. The Administrator will determine whether any significant element(s) will be included in or excluded from the calculation of any Performance Goal with respect to any Participant.

In all other respects, Performance Goals will be calculated in accordance with the Company's financial statements, generally accepted accounting principles, or under a methodology established by the Administrator prior to the issuance of an Award and which is consistently applied with respect to a Performance Goal in the relevant Performance Period.

12. *Compliance With Code Section 409A.* Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Code Section 409A such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Code Section 409A and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Code Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Code Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A. In no event will the Company or any of its Affiliates have any obligation under the terms of this Plan to reimburse, indemnify, or hold harmless a Participant for any taxes, interest or penalties imposed, or other costs incurred, as a result of Code Section 409A.

13. *Leaves of Absence/Transfer Between Locations.* Unless the Administrator provides otherwise and except as required by Applicable Laws, vesting of Awards granted hereunder will be suspended during any unpaid leave of absence. A Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, or any Subsidiary. For purposes of Incentive Stock Options, no such leave may exceed three (3) months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then six (6) months following the first (1st) day of such leave, any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

14. *Transferability of Awards.* Unless determined otherwise by the Administrator, an Award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, such Award will contain such additional terms and conditions as the Administrator deems appropriate.

15. *Adjustments; Dissolution or Liquidation; Merger or Change in Control.*

(a) *Adjustments.* In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of shares that may be delivered under the Plan and/or the number, class, and price of shares covered by each outstanding Award, and the numerical Share limits set forth in Section 3 of the Plan.

(b) *Dissolution or Liquidation.* In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

(c) *Change in Control.* In the event of a merger of the Company with or into another corporation or other entity or a Change in Control, each outstanding Award will be treated as the Administrator determines without a Participant's consent, including, without limitation, that (i) Awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof) with appropriate adjustments as to the number and kind of shares and prices; (ii) upon written notice to a Participant, that the Participant's Awards will terminate upon or immediately prior to the consummation of such merger or Change in Control; (iii) outstanding Awards will vest and become exercisable, realizable, or payable, or restrictions applicable to an Award will lapse, in whole or in part prior to or upon consummation of such merger or Change in Control, and, to the extent the Administrator determines, terminate upon or immediately prior to the effectiveness of such merger or Change in Control; (iv) (A) the termination of an Award in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Participant's rights as of the date of the occurrence of the transaction (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment), or (B) the replacement of such Award with other rights or property selected by the Administrator in its sole discretion; or (v) any combination of the foregoing. In taking any of the actions permitted under this subsection 15(c), the Administrator will not be obligated to treat all Awards, all Awards held by a Participant, or all Awards of the same type, similarly.

In the event that the successor corporation does not assume or substitute for the Award (or portion thereof), the Participant will fully vest in and have the right to exercise all of his or her outstanding Options and Stock Appreciation Rights (or portions thereof) that are not assumed or substituted for, including Shares as to which such Awards would not otherwise be vested or exercisable, all restrictions on Restricted Stock, Restricted Stock Units, and Performance Shares/Units not assumed or substituted for will lapse, and, with respect to Awards with performance-based vesting (or portions thereof) not assumed or substituted for, all performance goals or other vesting criteria will be deemed achieved at one hundred percent (100%) of target levels and all other terms and conditions met, in all cases, unless specifically provided otherwise under the applicable Award Agreement or other written agreement between the Participant and the Company or any of its Affiliates, as applicable. In addition, if an Option or Stock Appreciation Right (or portion thereof) is not assumed or substituted for in the event of a merger or Change in Control, the Administrator will notify the Participant in writing or electronically that the Option or Stock Appreciation Right (or its applicable portion) will be fully vested and exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right (or its applicable portion) will terminate upon the expiration of such period.

For the purposes of this subsection (c) (and subsection (d) below), an Award will be considered assumed if, following the merger or Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, or other securities or property) or, in the case of a Stock Appreciation Right upon the exercise of which the Administrator determines to pay cash or a Restricted Stock Unit, Performance Share or Performance Unit which the Administrator can determine to pay in cash, the fair market value of the consideration received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of an Option or Stock

Appreciation Right or upon the payout of a Restricted Stock Unit, Performance Unit or Performance Share, for each Share subject to such Award (or in the case of an Award settled in cash, the number of implied shares determined by dividing the value of the Award by the per share consideration received by holders of Common Stock in the merger or Change in Control), to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or Change in Control.

Notwithstanding anything in this Section 15(c) to the contrary, and unless otherwise provided for in an Award Agreement or other written agreement between the Participant and the Company or any of its Affiliates, as applicable, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance objectives (including any Performance Goals) will not be considered assumed if the Company or its successor modifies any of such performance objectives without the Participant's consent; provided, however, a modification to such performance objectives only to reflect the successor corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption.

Notwithstanding anything in this Section 15(c) to the contrary, if a payment under an Award Agreement is subject to Code Section 409A and if the change in control definition contained in the Award Agreement or other agreement related to the Award does not comply with the definition of "change in control" for purposes of a distribution under Code Section 409A, then any payment of an amount that is otherwise accelerated under this Section will be delayed until the earliest time that such payment would be permissible under Code Section 409A without triggering any penalties applicable under Code Section 409A.

(d) *Outside Director Awards.* With respect to Awards granted to an Outside Director, in the event of a Change in Control, the Participant will fully vest in and have the right to exercise Options and/or Stock Appreciation Rights as to all of the Shares underlying such Award, including those Shares which otherwise would not be vested or exercisable, all restrictions on Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units will lapse, and, with respect to Awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at one hundred percent (100%) of target levels and all other terms and conditions met, unless specifically provided otherwise under the applicable Award Agreement or other written agreement between the Participant and the Company.

16. *Tax Withholding.*

(a) *Withholding Requirements.* Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof) or such earlier time as any tax withholding obligations are due, the Company will have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local, non-U.S. or other taxes (including the Participant's FICA obligation) required to be withheld with respect to such Award (or exercise thereof).

(b) *Withholding Arrangements.* The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such tax withholding obligation, in whole or in part by (without limitation) (a) paying cash, check or other cash equivalents, (b) electing to have the Company withhold otherwise deliverable cash or Shares having a fair market value equal to the minimum statutory amount required to be withheld or such greater amount as the Administrator may determine if such amount would not have adverse accounting consequences, as the Administrator determines in its sole discretion, (c) delivering to the Company already-owned Shares having a fair market value equal to the minimum statutory amount required to be withheld or such greater amount as the Administrator may determine, in each case, provided the delivery of such Shares will not result in any adverse accounting consequences, as the Administrator determines in its sole discretion, (d) selling a sufficient number

of Shares otherwise deliverable to the Participant through such means as the Administrator may determine in its sole discretion (whether through a broker or otherwise) equal to the amount required to be withheld, or (e) any combination of the foregoing methods of payment. The fair market value of the Shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

17. *No Effect on Employment or Service.* Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider with the Company or any Affiliate, nor will they interfere in any way with the Participant's right or the right of the Company or any Affiliate to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.

18. *Date of Grant.* The date of grant of an Award will be, for all purposes, the date on which the Administrator makes the determination granting such Award, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

19. *Term of Plan.* Subject to Section 23 of the Plan, the Plan will become effective upon its adoption by the Board. It will continue in effect for a term of ten (10) years from the date adopted by the Board, unless terminated earlier under Section 20 of the Plan.

20. *Amendment and Termination of the Plan.*

(a) *Amendment and Termination.* The Administrator may at any time amend, alter, suspend or terminate the Plan.

(b) *Stockholder Approval.* The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) *Effect of Amendment or Termination.* No amendment, alteration, suspension or termination of the Plan will impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Awards granted under the Plan prior to the date of such termination.

21. *Conditions Upon Issuance of Shares.*

(a) *Legal Compliance.* Shares will not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.

(b) *Investment Representations.* As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

22. *Inability to Obtain Authority.* The inability of the Company to obtain authority from any regulatory body having jurisdiction or to complete or comply with the requirements of any registration or other qualification of the Shares under any state, federal or non-U.S. law or under the rules and regulations of the Securities and Exchange Commission, the stock exchange on which Shares of the same class are then listed, or any other governmental or regulatory body, which authority, registration, qualification or rule compliance is deemed by the Company's counsel to be necessary or advisable for the issuance and sale of any Shares hereunder, will relieve the Company of any liability in respect of

the failure to issue or sell such Shares as to which such requisite authority, registration, qualification or rule compliance will not have been obtained.

23. *Stockholder Approval.* The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

* * *

VIVUS, INC.

1994 EMPLOYEE STOCK PURCHASE PLAN
(Share numbers adjusted for 1-for-10 reverse stock split effected September 10, 2018)

The following constitute the provisions of the 1994 Employee Stock Purchase Plan of VIVUS, Inc.

1. *Purpose.* The purpose of the Plan is to provide employees of the Company and its Designated Subsidiaries with an opportunity to purchase Common Stock of the Company through accumulated Contributions (as defined below). It is the intention of the company to have the Plan qualify as an "Employee Stock Purchase Plan" under Section 423 of the Internal Revenue Code of 1986, as amended. The provisions of the Plan, accordingly, shall be construed so as to extend and limit participation in a manner consistent with the requirements of that section of the Code.

2. *Definitions.*

(a) "*Administrator*" shall mean the Board or any committee of members of the Board designated by the Board to administer the Plan pursuant to Section 13.

(b) "*Board*" shall mean the Board of Directors of the company.

(c) "*Change of Control*" shall mean the occurrence of any of the following events:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company's then outstanding voting securities; or

(ii) The consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; or

(iii) The consummation of a merger or consolidation of the Company, with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company, or such surviving entity or its parent outstanding immediately after such merger or consolidation; or

(iv) A change in the composition of the Board, as a result of which fewer than a majority of the Directors are Incumbent Directors. "Incumbent Directors" shall mean Directors who either (A) are Directors of the Company, as applicable, as of the date hereof, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of those Directors whose election or nomination was not in connection with any transaction described in subsections (i), (ii) or (iii) or in connection with an actual or threatened proxy contest relating to the election of Directors of the Company.

(d) "*Code*" shall mean the Internal Revenue Code of 1986, as amended.

(e) "*Common Stock*" shall mean the Common Stock of the Company.

(f) "*Company*" shall mean VIVUS, Inc. and any Designated Subsidiary of the Company.

(g) "*Compensation*" shall mean all base straight time gross earnings and commissions, exclusive of payments for overtime, shift premium, incentive compensation, incentive payments, bonuses and other compensation. The Administrator, in its discretion, may, on a uniform and

nondiscriminatory basis, establish a different definition of Compensation for a subsequent Offering Period.

(h) "*Contributions*" shall mean the payroll deductions and other additional payments that the Company may permit to be made by a participant to fund the exercise of options granted pursuant to the Plan.

(i) "*Designated Subsidiary*" shall mean any Subsidiary which has been designated by the Administrator from time to time in its sole discretion as eligible to participate in the Plan.

(j) "*Eligible Employee*" shall mean any individual who is a common law employee of the Company or any Designated Subsidiary whose customary employment with the Company or any Designated Subsidiary is at least twenty (20) hours per week and more than five (5) months in any calendar year, or any lesser number of hours per week and/or number of months in any calendar year established by the Administrator (if required under applicable local law) for purposes of any separate Offerings. For purposes of the Plan, the employment relationship shall be treated as continuing intact while the individual is on sick leave or other leave of absence approved by the Company. Where the period of leave exceeds three (3) months and the individual's right to reemployment is not guaranteed either by statute or by contract, the employment relationship will be deemed to have terminated three (3) months and one (1) day following commencement of such leave. The Administrator, in its discretion, from time to time may, prior to an Enrollment Date for all options to be granted on such Enrollment Date in an Offering, determine (on a uniform and nondiscriminatory basis or as otherwise permitted by Treasury Regulation Section 1.423-2) that the definition of Eligible Employee will or will not include an individual if he or she: (i) has not completed at least two (2) years of service since his or her last hire date (or such lesser period of time as may be determined by the Administrator in its discretion), (ii) customarily works not more than twenty (20) hours per week (or such lesser period of time as may be determined by the Administrator in its discretion), (iii) customarily works not more than five (5) months per calendar year (or such lesser period of time as may be determined by the Administrator in its discretion), (iv) is a highly compensated employee within the meaning of Section 414(q) of the Code, or (v) is a highly compensated employee within the meaning of Section 414(q) of the Code with compensation above a certain level or is an officer or subject to the disclosure requirements of Section 16(a) of the Exchange Act, provided the exclusion is applied with respect to each Offering in an identical manner to all highly compensated individuals of the Employer whose Employees are participating in that Offering. Each exclusion shall be applied with respect to an Offering in a manner complying with U.S. Treasury Regulation Section 1.423-2(e)(2)(ii).

(k) "*Enrollment Date*" shall mean the first day of each Offering Period.

(l) "*Exercise Date*" shall mean the last day of each Offering Period.

(m) "*Exchange Act*" shall mean the Securities Exchange Act of 1934, as amended, including the rules and regulations promulgated thereunder.

(n) "*Fair Market Value*" shall mean, as of any date, the value of Common Stock determined as follows:

(1) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the NASDAQ Global Select Market, the NASDAQ Global Market or the NASDAQ Capital Market of The NASDAQ Stock Market, its Fair Market Value shall be the closing sale price for the Common Stock (or the mean of the closing bid and asked prices, if no sales were reported), as quoted on such exchange (or the exchange with the greatest volume of trading in Common Stock) or system on the date of such determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable, or;

(2) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean of the closing bid and asked prices for the Common Stock on the date of such determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable, or;

(3) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator.

(o) "Offering" shall mean an offer under the Plan of an option that may be exercised during an Offering Period as further described in Section 4. For purposes of the Plan, the Administrator may designate separate Offerings under the Plan (the terms of which need not be identical) in which Eligible Employees of the Company and/or one or more of the Designated Subsidiaries will participate, even if the dates of the applicable Offering Periods of each such Offering are identical and the provisions of the Plan will separately apply to each Offering. To the extent permitted by U.S. Treasury Regulation Section 1.423-2(a)(1), the terms of each Offering need not be identical provided that the terms of the Plan and an Offering together satisfy U.S. Treasury Regulation Sections 1.423-2(a)(2) and (a)(3).

(p) "*Offering Period*" shall mean a period of approximately six (6) months, commencing on the first Trading Day on or after May 15 and terminating on the last Trading Day in the period ending the following November 14, or commencing on the first Trading Day on or after November 15 and terminating on the last Trading Day in the period ending the following May 14, during which an option granted pursuant to the Plan may be exercised. The duration and timing of Offering Periods may be changed pursuant to Section 4 of this Plan. The initial Offering Period shall be determined by the Board of Directors.

(q) "*Plan*" shall mean this Employee Stock Purchase Plan, as amended.

(r) "*Purchase Price*" shall mean an amount equal to 85% of the Fair Market Value of a share of Common Stock on the Enrollment Date or on the Exercise Date, whichever is lower; provided, however, that the Purchase Price may be determined for subsequent Offering Periods by the Administrator subject to compliance with Section 423 of the Code (or any successor rule or provision or any other applicable law, regulation or stock exchange rule) or pursuant to Section 19.

(s) "*Reserves*" shall mean the number of shares of Common Stock covered by each option under the Plan which have not yet been exercised and the number of shares of Common Stock which have been authorized for issuance under the Plan but not yet placed under option.

(t) "*Subsidiary*" shall mean a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

(u) "*Trading Day*" shall mean a day on which national stock exchanges and the National Association of Securities Dealers Automated Quotation (NASDAQ) System are open for trading.

3. *Eligibility.*

(a) Any Eligible Employee (as defined in Section 2(g)), who shall be employed by the Company on a given Enrollment Date shall be eligible to participate in the Plan.

(b) Employees who are citizens or residents of a non-U.S. jurisdiction (without regard to whether they also are citizens or residents of the United States or resident aliens (within the meaning of Section 7701(b)(1)(A) of the Code)) may be excluded from participation in the Plan or an Offering if the participation of such employees is prohibited under the laws of the applicable jurisdiction or if complying with the laws of the applicable jurisdiction would cause the Plan or an Offering to violate Section 423 of the Code.

(c) Any provisions of the Plan to the contrary notwithstanding, no Eligible Employee shall be granted an option under the Plan (i) to the extent, immediately after the grant, such Eligible Employee (or any other person whose stock would be attributed to such Eligible Employee pursuant to Section 424(d) of the Code) would own capital stock of the Company or of any Subsidiary and/or hold outstanding options to purchase such stock possessing five percent (5%) or more of the total combined voting power or value of all classes of the capital stock of the Company or of any Subsidiary, or (ii) to the extent his or her rights to purchase stock under all employee stock purchase plans (as defined in Section 423 of the Code) of the Company and its subsidiaries to accrue at a rate which exceeds Twenty-Five Thousand Dollars (\$25,000) worth of stock (determined at the fair market value of the shares at the time such option is granted) for each calendar year in which such option is outstanding at any time, as determined in accordance with Section 423 of the Code and the regulations thereunder.

4. *Offering Periods.* The Plan shall be implemented by consecutive Offering Periods with a new Offering Period commencing on the first Trading Day on or after May 15 and November 15 each year, or on such other date as the Administrator shall determine, and continuing thereafter until terminated in accordance with Section 19 hereof. The Administrator shall have the power to change the duration of Offering Periods (including the commencement dates thereof) with respect to future Offerings without stockholder approval if such change is announced prior to the scheduled beginning of the first Offering Period to be affected thereafter.

5. *Participation.*

(a) An Eligible Employee may become a participant in the Plan by completing a subscription agreement authorizing payroll deductions in the form of *Exhibit A* to this Plan and filing it with the Company's payroll office prior to the applicable Enrollment Date.

6. *Contributions.*

(a) At the time a participant files his or her subscription agreement, he or she shall elect to have payroll deductions made on each pay day or other Contributions made (to the extent permitted by the Administrator) during the Offering Period in an amount not less than one percent (1%) not exceeding ten percent (10%) of the Compensation which he or she receives on each pay day during the Offering Period; provided, however, that should a pay day occur on an Exercise Date, a participant shall have the payroll deductions made on such day applied to his or her account under the new Offering Period. The Administrator, in its sole discretion, may permit all participants in a specified Offering to contribute amounts to the Plan through payment by cash, check or other means set forth in the subscription agreement prior to each Exercise Date of each Offering Period. A participant's subscription agreement shall remain in effect for successive Offering Periods unless terminated as provided in Section 10 hereof.

(b) Payroll deductions for a participant shall commence on the first payroll following the Enrollment Date and shall end on the last payroll in the Offering Period to which such authorization is applicable, unless sooner terminated by the participant as provided in Section 10 hereof.

(c) All Contributions made for a participant shall be credited to his or her account under the Plan and payroll deductions will be withheld in whole percentages only. A participant may not make any additional payments into such account.

(d) A participant may discontinue his or her participation in the Plan as provided in Section 10 hereof, or may increase or decrease the rate of his or her Contributions during the Offering Period by completing or filing with the Company a new subscription agreement authorizing a change in Contribution rate. If a participant has not followed such procedures to change the rate of Contributions, the rate of his or her Contributions will continue at the originally

elected rate throughout the Offering Period and future Offering Periods (unless terminated as provided in Section 10). The Administrator may, in its discretion, limit the nature and/or number of Contribution rate changes during any Offering Period, and may establish such other conditions or limitations as it deems appropriate for Plan administration. The change in rate shall be effective with the first full payroll period following five (5) business days after the Company's receipt of the new subscription agreement unless the Company elects to process a given change in participation more quickly. A participant's subscription agreement shall remain in effect for successive Offering Periods unless terminated as provided in Section 10 hereof.

(e) Notwithstanding the foregoing, to the extent necessary to comply with Section 423(b)(8) of the Code and Section 3(b) hereof, a participant's Contributions may be decreased to zero percent (0%) at such time during any Offering Period. Subject to Section 423(b)(8) of the Code and Section 3(c) of the Plan, Contributions shall recommence at the rate provided in such participant's subscription agreement at the beginning of the first Offering Period which is scheduled to end in the following calendar year, unless terminated by the participant as provided in Section 10 hereof.

(f) Notwithstanding any provisions to the contrary in the Plan, the Administrator may allow Eligible Employees to participate in the Plan via cash contributions instead of payroll deductions if the Administrator determines that cash contributions are permissible under Section 423 of the Code.

(g) At the time the option is exercised, in whole or in part, or at the time some or all of the Company's Common Stock issued under the Plan is disposed of (or any other time that a taxable event related to the Plan occurs), the participant must make adequate provision for the Company's (or Designated Subsidiary's) federal, state, local or any other tax liability payable to any authority including taxes imposed by jurisdictions outside of the U.S., national insurance, social security or other tax withholding obligations, if any, which arise upon the exercise of the option or the disposition of the Common Stock (or any other time that a taxable event related to the Plan occurs). At any time, the Company may, but will not be obligated to, withhold from the participant's compensation the amount necessary for the Company to meet applicable withholding obligations, including any withholding required to make available to the Company any tax deductions or benefits attributable to sale or early disposition of Common Stock by the Eligible Employee. In addition, the Company or its Designated Subsidiary may, but will not be obligated to, withhold from the proceeds of the sale of Common Stock or any other method of withholding the Company or its Designated Subsidiary deems appropriate to the extent permitted by U.S. Treasury Regulation Section 1.423-2(f).

7. *Grant of Option.* On the Enrollment Date of each Offering Period, each Eligible Employee participating in such Offering Period shall be granted an option to purchase on the Exercise Date of such Offering Period (at the applicable Purchase Price) up to a number of shares of the Company's Common Stock determined by dividing such Eligible Employee's Contributions accumulated prior to such Exercise Date and retained in the Participant's account as of the Exercise Date by the applicable Purchase Price; provided that in no event shall an Eligible Employee be permitted to purchase during each Offering Period more than 1,000 shares of the Company's Common Stock (subject to any adjustment pursuant to Section 18), on the Enrollment Date, and provided further that such purchase shall be subject to the limitations set forth in Sections 3(b) and 12 hereof. The Eligible Employee may accept the grant of such option by turning in a completed and signed subscription agreement (in the form attached hereto as *Exhibit A*) to the Company on or prior to an Enrollment Date. The Administrator may, for future Offering Periods, increase or decrease, in its absolute discretion, the maximum number of shares of the Company's Common Stock an Eligible Employee may purchase during an Offering Period. Exercise of the option shall occur as provided in Section 8 hereof, unless

the participant has withdrawn pursuant to Section 10 hereof, and shall expire on the last day of the Offering Period.

8. *Exercise of Option.*

(a) Unless a participant withdraws from the Plan as provided in Section 10 hereof, his or her option for the purchase of shares will be exercised automatically on the Exercise Date, and the maximum number of full shares subject to option shall be purchased for such participant at the applicable Purchase Price with the accumulated Contributions in his or her account. No fractional shares will be purchased; any Contributions accumulated in a participant's account which are not sufficient to purchase a full share shall be retained in the participant's account for the subsequent Offering Period, subject to earlier withdrawal by the participant as provided in Section 10 hereof. Any other monies left over in a participant's account after the Exercise Date shall be returned to the participant. During a participant's lifetime, a participant's option to purchase shares hereunder is exercisable only by him or her.

(b) If the Administrator determines that, on a given Exercise Date, the number of shares with respect to which options are to be exercised may exceed (i) the number of shares of Common Stock that were available for sale under the Plan on the Enrollment Date of the applicable Offering Period, or (ii) the number of shares available for sale under the Plan on such Exercise Date, the Administrator may in its sole discretion (x) provide that the Company shall make a pro rata allocation of the shares of Common Stock available for purchase on such Enrollment Date or Exercise Date, as applicable, in as uniform a manner as shall be practicable and as it shall determine in its sole discretion to be equitable among all participants exercising options to purchase Common Stock on such Exercise Date, and continue all Offering Periods then in effect or (y) provide that the Company shall make a pro rata allocation of the shares available for purchase on such Enrollment Date or Exercise Date, as applicable, in as uniform a manner as shall be practicable and as it shall determine in its sole discretion to be equitable among all participants exercising options to purchase Common Stock on such Exercise Date, and terminate any or all Offering Periods then in effect pursuant to Section 19. The Company may make pro rata allocation of the shares available on the Enrollment Date of any applicable Offering Period pursuant to the preceding sentence, notwithstanding any authorization of additional shares for issuance under the Plan by the Company's stockholders subsequent to such Enrollment Date.

9. *Delivery.* As promptly as practicable after each Exercise Date on which a purchase of shares occurs, the Company shall arrange the delivery to each participant, as appropriate, of a certificate representing the shares purchased upon exercise of his or her option in a form determined by the Administrator. The Company may permit or require that shares be deposited directly with a broker designated by the Company or to a designated agent of the Company, and the Company may utilize electronic or automated methods of share transfer. The Company may require that shares be retained with such broker or agent for a designated period of time and/or may establish other procedures to permit tracking of disqualifying dispositions of such shares. No participant will have any voting, dividend, or other stockholder rights with respect to shares of Common Stock subject to any option granted under the Plan until such shares have been purchased and delivered to the participant as provided in this Section 9.

10. *Withdrawal; Termination of Employment.*

(a) A participant may withdraw all but not less than all the Contributions credited to his or her account and not yet used to exercise his or her option under the Plan at any time by giving written notice to the Company in the form of *Exhibit B* to this Plan. All of the participant's Contributions credited to his or her account will be paid to such participant promptly after receipt of notice of withdrawal and such participant's option for the Offering Period will be automatically terminated, and no further payroll deductions for the purchase of shares will be made during the

Offering Period. If a participant withdraws from an Offering Period, payroll deductions will not resume at the beginning of the succeeding Offering Period unless the participant delivers to the Company a new subscription agreement.

(b) A participant's withdrawal from an Offering Period will not have any effect upon his or her eligibility to participate in any similar plan which may hereafter be adopted by the Company or in succeeding Offering Periods which commence after the termination of the Offering Period from which the participant withdraws.

(c) Upon a participant's ceasing to be an Eligible Employee (as defined in Section 2(g) hereof), for any reason, he or she will be deemed to have elected to withdraw from the Plan and the Contributions credited to such participant's account during the Offering Period but not yet used to exercise the option will be returned to such participant or, in the case of his or her death, to the person or persons entitled thereto under Section 14 hereof, and such participant's option will be automatically terminated. The preceding sentence notwithstanding, a participant who receives payment in lieu of notice of termination of employment shall be treated as continuing to be an Eligible Employee for the participant's customary number of hours per week of employment during the period in which the participant is subject to such payment in lieu of notice.

11. *Interest.* No interest shall accrue on the Contributions of a participant in the Plan, except as may be required by applicable law, as determined by the Company, and if so required by the laws of a particular jurisdiction, shall apply to all participants in the relevant Offering except to the extent otherwise permitted by U.S. Treasury Regulation Section 1.423-2(f).

12. *Stock.*

(a) The maximum number of shares of the Company's Common Stock which shall be made available for sale under the Plan shall be 600,000 shares, subject to adjustment upon changes in capitalization of the Company as provided in Section 18 hereof.

(b) The participant will have no interest or voting right in shares covered by his option until such option has been exercised.

(c) Shares to be delivered to a participant under the Plan will be registered in the name of the participant or in the name of the participant and his or her spouse.

13. *Administration.* The Plan shall be administered by the Board or a committee of members of the Board appointed by the Board. The Administrator shall have full and exclusive discretionary authority to construe, interpret and apply the terms of the Plan, to designate separate Offerings under the Plan, to determine eligibility, to adjudicate all disputed claims filed under the Plan and to establish such procedures that it deems necessary for the administration of the Plan (including, without limitation, to adopt such procedures and sub-plans as are necessary or appropriate to permit the participation in the Plan by employees who are foreign nationals or employed outside the U.S., the terms of which sub-plans may take precedence over other provisions of this Plan, with the exception of Section 12(a) hereof, but unless otherwise superseded by the terms of such sub-plan, the provisions of this Plan shall govern the operation of such sub-plan). Unless otherwise determined by the Administrator, the employees eligible to participate in each sub-plan will participate in a separate Offering. Without limiting the generality of the foregoing, the Administrator is specifically authorized to adopt rules and procedures regarding eligibility to participate, the definition of Compensation, handling of Contributions, making of Contributions to the Plan (including, without limitation, in forms other than payroll deductions), establishment of bank or trust accounts to hold Contributions, payment of interest, conversion of local currency, obligations to pay payroll tax, determination of beneficiary designation requirements, withholding procedures and handling of stock certificate that vary with applicable local requirements. The Administrator also is authorized to determine that, to the extent permitted by U.S. Treasury Regulation Section 1.423-2(f), the terms of option granted under the Plan or an Offering to citizens or residents of a non-U.S. jurisdiction will be less favorable than the terms of options granted under the Plan or the same Offering to employees resident solely in the U.S. Every finding, decision and determination made by the Administrator shall, to the full extent permitted by law, be final and binding upon all parties.

14. *Designation of Beneficiary.*

(a) If permitted by the Administrator, a participant may file a written designation of a beneficiary who is to receive any shares and cash, if any, from the participant's account under the Plan in the event of such participant's death subsequent to an Exercise Date on which the option is exercised but prior to delivery to such participant of such shares and cash. In addition, a participant may file a written designation of a beneficiary who is to receive any cash from the participant's account under the Plan in the event of such participant's death prior to exercise of the option. If a participant is married and the designated beneficiary is not the spouse, spousal consent shall be required for such designation to be effective.

(b) Such designation of beneficiary may be changed by the participant at any time by written notice in a form determined by the Administrator. In the event of the death of a participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such participant's death, the Company shall deliver such shares and/or cash to the executor or administrator of the estate of the participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares and/or cash to the spouse or to any one or more dependents or relatives of the participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

(c) All beneficiary designations will be in such form and manner as the Administrator may designate from time to time. Notwithstanding subsections (a) and (b) above, the Company and/or the Administrator may decide not to permit such designations by participants in non-U.S. jurisdictions to the extent permitted by U.S. Treasury Regulation Section 1.423-2(f).

15. *Transferability.* Neither Contributions credited to a participant's account nor any rights with regard to the exercise of an option or to receive shares under the Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than by will, the laws of descent and distribution or as provided in Section 14 hereof) by the participant. Any such attempt at assignment, transfer, pledge or other disposition shall be without effect, except that the Company may treat such act as an election to withdraw funds from an Offering Period in accordance with Section 10 hereof.

16. *Use of Funds.* All Contributions received or held by the Company under the Plan may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such Contributions except under such Offerings in which applicable local law requires that Contributions to the Plan by participants be segregated from the Company's general corporate funds and/or deposited with an independent third party for participants in non-U.S. jurisdictions. Until shares are issued, participants shall only have the rights of an unsecured creditor with respect to such shares.

17. *Reports.* Individual accounts will be maintained for each participant in the Plan. Statements of account will be given to participating Eligible Employees at least annually, which statements will set forth the amounts of Contributions, the Purchase Price, the number of shares purchased and the remaining cash balance, if any.

18. *Adjustments Upon Changes in Capitalization.*

(a) *Changes in Capitalization.* Subject to any required action by the stockholders of the Company, the Reserves as well as the price per share of Common Stock covered by each option under the Plan which has not yet been exercised shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease in the number of shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration". Such

adjustment shall be made by the Administrator, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an option.

(b) *Dissolution or Liquidation.* In the event of the proposed dissolution or liquidation of the Company, the Offering Period then in progress shall be shortened by setting a new Exercise Date (the "New Exercise Date"), and shall terminate immediately prior to the consummation of such proposed dissolution or liquidation, unless provided otherwise by the Administrator. The New Exercise Date shall be before the date of the Company's proposed dissolution or liquidation. The Administrator shall notify each participant in writing, at least ten (10) business days prior to the New Exercise Date, that the Exercise Date for the participant's option has been changed to the New Exercise Date and that the participant's option shall be exercised automatically on the New Exercise Date, unless prior to such date the participant has withdrawn from the Offering Period as provided in Section 10 hereof.

(c) *Merger or Change of Control.* In the event of a merger or a Change of Control, each option under the Plan shall be assumed or an equivalent option shall be substituted by such successor corporation or a parent or subsidiary of such successor corporation, unless the Administrator determines, in the exercise of its sole discretion and in lieu of such assumption or substitution, to shorten the Offering Period then in progress by setting a new Exercise Date (the "New Exercise Date") or to cancel each outstanding right to purchase and refund all sums collected from participants during the Offering Period then in progress. If the Administrator shortens the Offering Period then in progress in lieu of assumption or substitution in the event of a merger or Change of Control, the Administrator shall notify each participant in writing, at least ten (10) business days prior to the New Exercise Date, that the Exercise Date for his or her option has been changed to the New Exercise Date and that his or her option will be exercised automatically on the New Exercise Date, unless prior to such date he or she has withdrawn from the Offering Period as provided in Section 10 hereof. For purposes of this paragraph, an option granted under the Plan shall be deemed to be assumed if, following the merger or Change of Control, the option confers the right to purchase, for each share of option stock subject to the option immediately prior to the merger or Change of Control, the consideration (whether stock, cash or other securities or property) received in the merger or Change of Control by holders of Common Stock for each share of Common Stock held on the effective date of the transaction (and if such holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if such consideration received in the merger or Change of Control was not solely common stock of the successor corporation or its parent (as defined in Section 424(e) of the Code), the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon exercise of the option to be solely common stock of the successor corporation or its parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or Change of Control.

The Administrator may, if it so determines in the exercise of its sole discretion, also make provision for adjusting the Reserves, as well as the price per share of Common Stock covered by each outstanding option, in the event the Company effects one or more reorganizations, recapitalizations, rights offerings or other increases or reductions of shares of its outstanding Common Stock, and in the event of the Company being consolidated with or merged into any other corporation.

19. *Amendment or Termination.*

(a) The Administrator may at any time and for any reason terminate or amend the Plan. Except as provided in Section 18 hereof, no such termination can affect options previously granted, provided that an Offering Period may be terminated by the Administrator on any Exercise Date if the Administrator determines that the termination of the Plan is in the best interests of the Company and its stockholders. Except as provided in Section 18 hereof, no amendment may make any change in any option theretofore granted which adversely affects the rights of any participant. To the extent necessary to comply with Section 423 of the Code (or any successor rule or provision or any other applicable law or regulation), the Company shall obtain stockholder approval in such a manner and to such a degree as required.

(b) Without stockholder consent and without regard to whether any participant rights may be considered to have been "adversely affected," the Administrator shall be entitled to change the Offering Periods, designate separate Offerings, limit the frequency and/or number of changes in the amount withheld during an Offering Period, establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars, permit payroll withholding in excess of the amount designated by a participant in order to adjust for delays or mistakes in the Company's processing of properly completed withholding elections, establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Common Stock for each participant properly correspond with Contribution amounts, and establish such other limitations or procedures as the Administrator determines in its sole discretion advisable which are consistent with the Plan.

(c) In the event the Administrator determines that the ongoing operation of the Plan may result in unfavorable financial accounting consequences, the Administrator may, in its discretion and, to the extent necessary or desirable, modify, amend or terminate the Plan to reduce or eliminate such accounting consequence including, but not limited to:

(i) amending the Plan to confirm with the safe harbor definition under the Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto), including with respect to an Offering Period underway at the time;

(ii) altering the Purchase Price for any Offering Period including an Offering Period underway at the time of the change in Purchase Price;

(iii) shortening any Offering Period so that Offering Period ends on a new Exercise Date, including an Offering Period underway at the time of the Administrator action; and

(iv) reducing the maximum percentage of Compensation a participant may elect to set aside as Contributions; and

(v) allocating shares.

Such modifications or amendments shall not require stockholder approval or the consent of any Plan participants

20. *Notices.* All notices or other communications by a participant to the Company under or in connection with the Plan shall be deemed to have been duly given when received in the form and manner specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

21. *Conditions Upon Issuance of Shares.* Shares shall not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such shares pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, the rules and

regulations promulgated thereunder, and the requirements of any stock exchange upon which the shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

As a condition to the exercise of an option, the Company may require the person exercising such option to represent and warrant at the time of any such exercise that the shares are being purchased only for investment and without any present intention to sell or distribute such shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned applicable provisions of law.

22. *Code Section 409A.* The Plan is exempt from the application of Code Section 409A and any ambiguities herein will be interpreted to so be exempt from Code Section 409A. In furtherance of the foregoing and notwithstanding any provision in the Plan to the contrary, if the Administrator determines that an option granted under the Plan may be subject to Code Section 409A or that any provision in the Plan would cause an option under the Plan to be subject to Code Section 409A, the Administrator may amend the terms of the Plan and/or of an outstanding option granted under the Plan, or take such other action the Administrator determines is necessary or appropriate, in each case, without the participant's consent, to exempt any outstanding option or future option that may be granted under the Plan from or to allow any such options to comply with Code Section 409A, but only to the extent any such amendments or action by the Administrator would not violate Code Section 409A. Notwithstanding the foregoing, the Company shall have no liability to a participant or any other party if the option to purchase Common Stock under the Plan that is intended to be exempt from or compliant with Code Section 409A is not so exempt or compliant or for any action taken by the Administrator with respect thereto. The Company makes no representation that the option to purchase Common Stock under the Plan is compliant with Code Section 409A.

23. *Term of Plan.* The Plan shall become effective upon the earlier to occur of its adoption by the Board of Directors or its approval by the stockholders of the Company. It shall continue in effect until terminated under Section 19 hereof.

24. *Governing Law.* The Plan shall be governed by, and construed in accordance with, the laws of the State of California (except its choice-of-law provisions).

25. *Severability.* If any provision of the Plan is or becomes or is deemed to be invalid, illegal, or unenforceable for any reason in any jurisdiction or as to any participant, such invalidity, illegality or unenforceability shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as to such jurisdiction or participant as if the invalid, illegal or unenforceable provision had not been included.

Exhibit A

VIVUS, INC.

1994 EMPLOYEE STOCK PURCHASE PLAN

SUBSCRIPTION AGREEMENT

_____ Original Application
_____ Change in Payroll Deduction Rate
_____ Change of Beneficiary(ies)

Enrollment Date: _____

1. _____ hereby elects to participate in the VIVUS, Inc. 1994 Employee Stock Purchase Plan (the "Employee Stock Purchase Plan") and subscribes to purchase shares of the Company' s Common Stock in accordance with this Subscription Agreement and the Employee Stock Purchase Plan.

2. I hereby authorize payroll deductions from each paycheck in the amount of ____ % of my Compensation on each payday (not to exceed 10%) during the Offering Period in accordance with the Employee Stock Purchase Plan. (Please note that no fractional percentages are permitted.)

3. I understand that said payroll deductions shall be accumulated for the purchase of shares of Common Stock at the applicable Purchase Price determined in accordance with the Employee Stock Purchase Plan. I understand that if I do not withdraw from an Offering Period, any accumulated payroll deductions will be used to automatically exercise my option.

4. I have received a copy of the complete "Employee Stock Purchase Plan." I understand that my participation in the Employee Stock Purchase Plan is in all respects subject to the terms of the Plan. I understand that the grant of the option by the Company under this Subscription Agreement is subject to obtaining stockholder approval of the Employee Stock Purchase Plan.

5. Shares purchased for me under the Employee Stock Purchase Plan should be issued in the name(s) of (Eligible Employee or Eligible Employee and Spouse Only):

6. I understand that if I dispose of any shares received by me pursuant to the Plan within 2 years after the Enrollment Date (the first day of the Offering Period during which I purchased such shares), I will be treated for federal income tax purposes as having received ordinary income at the time of such disposition in an amount equal to the excess of the fair market value of the shares at the time such shares were purchased by me over the price which I paid for the shares. *I hereby agree to notify the Company in writing within 30 days after the date of any disposition of shares and I will make adequate provision for Federal, state or other tax withholding obligations, if any, which arise upon the disposition of the Common Stock.* The Company may, but will not be obligated to, withhold from my compensation the amount necessary to meet any applicable withholding obligation including any withholding necessary to make available to the Company any tax deductions or benefits attributable to sale or early disposition of Common Stock by me. If I dispose of such shares at any time after the expiration of the 2-year holding period, I understand that I will be treated for federal income tax purposes as having received income only at the time of such disposition, and that such income will be taxed as ordinary income only to the extent of an amount equal to the lesser of (1) the excess of the fair market value of the shares at the time of such disposition over the purchase price which I paid for the shares, or (2) 15% of the fair market value of the shares on the first day of the Offering Period. The remainder of the gain, if any, recognized on such disposition will be taxed as capital gain.

7. I hereby agree to be bound by the terms of the Employee Stock Purchase Plan. The effectiveness of this Subscription Agreement is dependent upon my eligibility to participate in the Employee Stock Purchase Plan.

8. In the event of my death, I hereby designate the following as my beneficiary(ies) to receive all payments and shares due me under the Employee Stock Purchase Plan:

NAME: (Please print)

(First)

(Middle)

(Last)

Relationship

(Address)

EMPLOYEE NAME: (Please print)

(First)

(Middle)

(Last)

(Address)

Employee's Social Security Number:

Employee's Address:

I UNDERSTAND THAT THIS SUBSCRIPTION AGREEMENT SHALL REMAIN IN EFFECT THROUGHOUT SUCCESSIVE OFFERING PERIODS UNLESS TERMINATED BY ME.

Dated:

Signature of Employee

Spouse's Signature (If beneficiary other than spouse)

Exhibit B

VIVUS, INC.

1994 EMPLOYEE STOCK PURCHASE PLAN

NOTICE OF WITHDRAWAL

The undersigned participant in the Offering Period of the VIVUS, Inc. 1994 Employee Stock Purchase Plan which began on _____ 20____ (the "Enrollment Date") hereby notifies the Company that he or she hereby withdraws from the Offering Period. He or she hereby directs the Company to pay to the undersigned as promptly as practicable all the payroll deductions credited to his or her account with respect to such Offering Period. The undersigned understands and agrees that his or her option for such Offering Period will be automatically terminated. The undersigned understands further that no further payroll deductions will be made for the purchase of shares in the current Offering Period and the undersigned shall be eligible to participate in succeeding Offering Periods only by delivering to the Company a new Subscription Agreement.

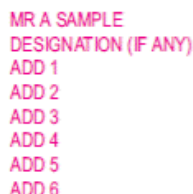
Name and Address of Participant:

Signature:

Date: _____



ENDORSEMENT LINE SACKPACK

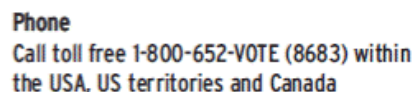
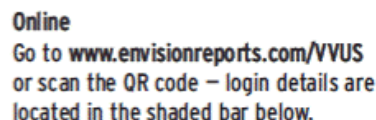
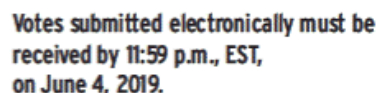


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You may vote online or by phone instead of mailing this card.



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▼ IF VOTING BY MAIL, SIGN, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

1. Election of Directors. To elect nine directors to serve until the next annual meeting of stockholders or until their successors are duly elected and qualified.

08 - Herman Rosenman

11

09 - Allan L. Shaw

□ □

For Against Abstain

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B Authorized Signatures – This section must be completed for your vote to count. Please date and sign below.

Date (mm/dd/yyyy) – Please print date below.

Signature 1 – Please keep signature within the box.

Signature 2 – Please keep signature within the box.



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▼ IF VOTING BY MAIL, SIGN, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

Proxy – VIVUS, INC.



Notice of 2019 Annual Meeting of Stockholders

Proxy Solicited by the Board of Directors for the Annual Meeting of Stockholders – June 5, 2019

John P. Amos and John L. Slebir (the “Proxies”), or any of them, each with the power of substitution, are hereby authorized to represent and vote the shares of the undersigned, with all the powers which the undersigned would possess if personally present, at the Annual Meeting of Stockholders of VIVUS, Inc., a Delaware corporation, to be held on Wednesday, June 5, 2019, at 8:00 a.m., local time, at the offices of Weil, Gotshal & Manges LLP, 767 Fifth Avenue, New York, New York 10153 or at any postponement or adjournment thereof.

Shares represented by this proxy will be voted by the stockholder. If no such directions are indicated, the Proxies will have authority to vote FOR the nominees listed on the reverse side and FOR Proposals 2, 3, 4 and 5.

Should a director nominee be unable to serve as a director, an event not currently anticipated, the Proxies reserve the right, in their discretion, to vote for a substitute nominee designated by the Board of Directors. Also, in their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

If you vote your proxy by internet or by telephone, you do NOT need to mail back your proxy card.

To vote by mail, mark, sign and date your proxy card and return it in the enclosed postage-paid envelope.

(Items to be voted appear on reverse side)

C Non-Voting Items

Change of Address – Please print new address below.

