

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

FORM 10-K/A
(Amendment No. 1)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2017

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 (NO FEE REQUIRED)**

For the transition period from _____ to _____

Commission File Number 001-33389

VIVUS, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

900 E. Hamilton Avenue, Suite 550
Campbell, California
(Address of principal executive office)

94-3136179
(IRS employer
identification number)

95008
(Zip Code)

Registrant's telephone number, including area code: (650) 934-5200

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock, \$.001 Par Value (Title of class)	The Nasdaq Global Select Market
Preferred Share Purchase Rights (Title of class)	

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐
(Do not check if a
smaller reporting company) Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No ☒

The aggregate market value of the common equity held by non-affiliates of the Registrant as of June 30, 2017, totaled approximately \$128,175,791 based on the closing stock price as reported by the Nasdaq Global Select Market.

As of April 13, 2018, there were 106,041,014 shares of the Registrant's common stock, \$0.001 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Document Description	10-K part
None.	

EXPLANATORY NOTE

This Amendment No. 1 to Form 10-K, or this Amendment, amends the Annual Report on Form 10-K for the fiscal year ended December 31, 2017 originally filed on March 14, 2018, or the Original Filing, by VIVUS, Inc., a Delaware corporation. We are filing this Amendment to present the information required by Items 10, 11, 12, 13 and 14 of Part III of Form 10-K because a definitive proxy statement containing such information will not be filed within 120 days after the end of our fiscal year covered by the Original Filing.

This Amendment amends and restates in its entirety Items 10, 11, 12, 13 and 14 of Part III and amends Part IV of the Original Filing. Except as expressly set forth herein, this Amendment does not reflect events occurring after the date of the Original Filing or modify or update any of the other disclosures contained therein in any way other than as required to reflect the amendments discussed above. Accordingly, this Amendment should be read in conjunction with the Original Filing and our other filings with the Securities and Exchange Commission, or SEC.

When we refer to "we," "our," "us," the "Company" or "VIVUS" in this document, we mean the current Delaware corporation, or VIVUS, Inc., and its California predecessor, as well as all of our consolidated subsidiaries.

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In VIVUS's filings with the SEC, information is sometimes "incorporated by reference." This means that we refer you to information previously filed with the SEC that should be considered as part of the particular filing. As provided under SEC regulations, the "Compensation Committee Report" contained in this Amendment specifically is not incorporated by reference into any other filings with the SEC and shall not be deemed to be "filed" with the SEC. In addition, this Amendment includes a website address. This website address is intended to provide inactive, textual references only. The information on this website is not part of this Amendment.

PART III

Item 10. Directors, Executive Officers and Corporate Governance**Our Executive Officers**

The following table and the biographical information that follows it set forth information as of April 13, 2018 regarding our executive officers:

Name	Age	Position
Thomas B. King	63	Interim Chief Executive Officer and Director
Mark K. Oki	49	Chief Financial Officer and Chief Accounting Officer
John L. Slebir	52	Senior Vice President, Business Development and General Counsel and Secretary
Santosh T. Varghese, M.D.	47	Chief Medical Officer

The biographical information of Mr. King is set forth below under "Our Directors."

Mark K. Oki has served as our Chief Financial Officer and Chief Accounting Officer since October 2015. 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.

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.

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.

Our Directors

Our board of directors, or the Board, currently consists of six directors.

The following table and the biographical information that follows it set forth information as of April 13, 2018 regarding our Board:

Name	Age	Position Held with the Company	First Became a Director
Thomas B. King	63	Interim Chief Executive Officer and Director	2017
David Y. Norton(1)(2)(3)(4)	66	Chairman of the Board of Directors and Director	2013
Jorge Plutzky, M.D.(1)(4)	59	Director	2013
Eric W. Roberts(2)(3)(4)	54	Director	2015
Herman Rosenman(1)(2)(4)	70	Director	2013
Allan L. Shaw	54	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

Thomas B. King has served as our interim Chief Executive Officer since December 31, 2017 and as a director of the Company since May 24, 2017. 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 Cogentix, 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 Executive Officer from January 1997 to October 2000, and was a member of the board of directors 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. 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 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. and Oxford Immunotec Global PLC, a publicly traded diagnostics 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 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 consultant to the Company since February 1, 2018 and as a director of the Company since September 15, 2015. Since February 2018, he has served as Chief Financial Officer on a consultant, part-time basis to Immunomet Therapeutics, a private clinical stage biotechnology company. 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.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, or 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, 2017, we believe that during 2017, all of our executive officers, directors and 10% stockholders timely complied with all Section 16(a) filing requirements except as follows: on June 19, 2017, David Y. Norton, Jorge Plutzky, M.D., Eric W. Roberts, Herman Rosenman and Allan L. Shaw, directors of the Company, each filed one late Form 4 reporting the vesting of restricted stock units.

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.

Material Changes to Nominee Recommendation Procedures

There are no material changes to the procedures by which stockholders may recommend nominees to our Board.

Audit Committee

We have a separately-designated standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. 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 consists of directors Norton, Plutzky and Rosenman, none of whom is an employee of the Company and each of whom is independent within the meaning of Rule 5605 of the Nasdaq listing rules and the independence requirements of Rule 10A-3 of 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 Item 407(d)(5) of Regulation S-K. Mr. Rosenman serves as Chairman of the Audit Committee.

Item 11. Executive Compensation**Compensation Discussion and Analysis**

This Compensation Discussion and Analysis discusses:

- the elements of our compensation programs applicable to the named executive officers for 2017;
- the actions taken in 2017 with respect to compensation for the named executive officers; and
- the compensation of our named executive officers during 2017.

We refer to the following individuals as our "named executive officers" for 2017:

<u>Name</u>	<u>Title</u>
Thomas B. King	Interim Chief Executive Officer
Mark K. Oki	Chief Financial Officer and Chief Accounting Officer
John L. Slebir	Senior Vice President, Business Development and General Counsel and Secretary
Santosh T. Varghese, M.D.	Chief Medical Officer
Seth H. Z. Fischer(1)	Former Chief Executive Officer

- (1) On December 24, 2017, the Company and Mr. Fischer agreed that Mr. Fischer would depart from the role of Chief Executive Officer, effective December 31, 2017.

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. 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. In 2017, our focus was continuing to maximize the value of Qsymia® and STENDRA®/SPEDRA™, building our product development pipeline and managing our cost structure. In 2017, we licensed the Qsymia commercial rights in South Korea to Alvogen. If approved, South Korea will be the first territory outside of the U.S. in which Qsymia will be commercially available. We also regained the commercial rights for STENDRA/SPEDRA in Africa, the Middle East, Turkey, and the CIS countries, including Russia, and are in active negotiations to license these territories to third parties. In

2017, we continued to address our cost structure to reflect the realities of the branded anti-obesity market reducing our selling, general and administrative costs by 23%. Also, in 2017, we expanded our product development pipeline with the acquisition and development of tacrolimus for the treatment of pulmonary arterial hypertension, or PAH. During 2017, we obtained orphan drug designation in the EU for tacrolimus and held a pre-investigational new drug application (IND) meeting with the U.S. Food and Drug Administration, or FDA, to address our questions related to preclinical, nonclinical and clinical data and planned design of clinical trials of tacrolimus in class III and IV PAH patients, and clarified the requirements needed to file an IND to initiate a clinical trial in this indication.

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, an Aon Company, or 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 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, or 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 2017, our annual equity-based compensation to our named executive officers, other than Mr. Fischer, consisted of stock options, and our annual equity-based compensation to Mr. Fischer included a mix of stock options and restricted stock units. Effective December 31, 2017, Mr. Fisher departed from the role as the Company's Chief Executive Officer, and Mr. King was appointed to serve as the Company's interim Chief Executive Officer. Accordingly, Mr. King's equity-based compensation during 2017 was for his role as a non-employee director on the Company's Board. The annual equity awards to our named executive officers (other than the 2017 option award to Mr. King for his role as a non-employee director) 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. The 2017 option award to Mr. King vests over a three year period to provide a similar long-term incentive for our non-employee directors.

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 2017 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. Additional compensation data for our former Chief Executive Officer was obtained from the Radford Global Life Sciences Survey, which was provided to the Compensation Committee by Radford. For 2017, the Peer Group, which was determined by the Compensation Committee after consulting with Radford, consisted of the following companies:

AcelRx Pharmaceuticals, Inc.	Infinity Pharmaceuticals, Inc.
Adamas Pharmaceuticals, Inc.	Omeros Corporation
Alimera Sciences, Inc.	Orexigen Therapeutics, Inc.
Aralez Pharmaceuticals Inc.	Pernix Therapeutics Holdings, Inc.
Arena Pharmaceuticals, Inc.	Retrophin, Inc.
BioDelivery Sciences International, Inc.	SciClone Pharmaceuticals, Inc.
Corcept Therapeutics Incorporated	Spectrum Pharmaceuticals, Inc.
Corium International, Inc. CTI BioPharma Corp.	Sucampo Pharmaceuticals, Inc. (acquired by Mallinckrodt public limited company)
Cumberland Pharmaceuticals Inc.	Teligent, Inc.
Enanta Pharmaceuticals, Inc.	Zogenix, Inc.
ImmunoGen, Inc.	

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.

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 2017 Annual Meeting of Stockholders, or the 2017 Annual Meeting, on our 2016 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 2016 executive compensation at the 2017 Annual Meeting. After careful consideration, the Compensation Committee made changes to the Company's executive compensation practices by reducing the number and Black-Scholes model value of equity awards granted to our named executive officers. 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 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, or 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 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 2017, our Compensation Committee reviewed base salaries for our then serving named executive officers. The Compensation Committee considered a number of factors in setting the 2017 base salaries for our then serving named executive officers, including maximizing the value of Qsymia and STENDRA/SPEDRA, building our product development pipeline 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. Fischer, Oki and Slebir and Dr. Varghese received merit increases to their base salaries based on individual performance.

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

<u>Name</u>	<u>2017 Increase to Base Salary</u>	<u>2017 Base Salary (\$)</u>
Thomas B. King(1)	—	—
Mark K. Oki	3.5%	362,250
John L. Slebir	3.5%	468,650
Santosh T. Varghese, M.D.	3.5%	421,900
Seth H. Z. Fischer	3.5%	721,000

(1) Effective December 31, 2017, Mr. King was appointed to serve as the Company's interim Chief Executive Officer.

Cash Bonus Plan

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 February 2017 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 2017, our corporate performance objectives as approved by our Board in February 2017, were as follows:

- achieving certain strategic engagement and business strategy goals;
- achieving certain regulatory and intellectual property goals; and
- achieving certain compliance excellence goals and certain human resources goals.

In the Compensation Committee's opinion, the Company succeeded in meeting the following corporate objectives: achieving certain regulatory and intellectual property goals and achieving certain compliance excellence goals and certain human resources goals. Further, in the Compensation Committee's opinion, the Company succeeded, in part, in meeting the following corporate objective: achieving certain strategic engagement and business strategy goals. Based on the achievements in 2017, the Compensation Committee determined that bonuses under the Annual Bonus Plan equaling 69.4% of the eligible cash bonus potential would be paid for 2017 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 2017 and the executive's actual bonus amount:

Name	2017 Target Bonus as a Percentage of Base Salary	2017 Target Bonus (\$)	2017 Maximum Bonus as a Percentage of Base Salary	2017 Maximum Bonus (\$)(1)	2017 Actual Bonus as a Percentage of Base Salary	2017 Actual Bonus (\$)
Thomas B. King(2)	—	—	—	—	—	—
Mark K. Oki	40%	144,900	40%	144,900	28%	100,561
John L. Slebir	50%	234,325	50%	234,325	35%	162,622
Santosh T. Varghese, M.D.	40%	168,760	40%	168,760	18%	75,942
Seth H. Z. Fischer(3)	80%	576,800	80%	576,800	—	—

- (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) Effective December 31, 2017, Mr. King was appointed to serve as the Company's interim Chief Executive Officer. Mr. King did not participate in the Annual Bonus Plan for 2017.
- (3) On December 24, 2017, the Company and Mr. Fischer agreed that Mr. Fischer would depart from the role of Chief Executive Officer, effective December 31, 2017. The Company and Mr. Fischer entered into a Confidential Separation, General Release and Post-Separation Consulting Agreement, effective December 31, 2017, or the Separation Agreement. Pursuant to the Separation Agreement, Mr. Fischer is entitled to receive: (a) twelve equal monthly payments of \$48,066.67 beginning no later than January 31, 2018, which is the equivalent of 1/12th of Mr. Fischer's 2017 target bonus of \$576,800.04 and (b) a single lump sum cash payment of \$576,800.04 no later than January 31, 2018, which is one hundred percent of Mr. Fischer's 2017 target bonus. Please see below for a further description of the Separation Agreement.

For 2018, under the Annual Bonus Plan, the Compensation Committee determined that our 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 40%, 50% and 40% of their base salaries, respectively. The table below provides the 2018 base salary and the target and maximum bonuses for each named executive officer who is participating in the Annual Bonus Plan for 2018:

Name	2018 Base Salary (\$)	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)
Thomas B. King(2)	507,000	—	—	—	—
Mark K. Oki	383,985	40%	153,594	40%	153,594
John L. Slebir	482,710	50%	241,355	50%	241,355
Santosh T. Varghese, M.D.	426,120	40%	170,448	40%	170,448

- (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) Mr. King, as the interim Chief Executive Officer, is not a participant in the Annual Bonus Plan for 2018.

Equity Compensation

We award equity compensation to our named executive officers based on the performance of the named executive officer and guidelines related to each named executive officer's position in the Company. For our employees, other than our named executive officers, we determine our equity award guidelines based on information derived from our Compensation Committee's and management's experience. With respect to our named executive officers, we rely on Radford to review a comparison of companies and other relevant information regarding companies in our industry and provide recommendations to us. Also, 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 2017, we granted stock options to purchase 5,184,800 shares of our Common Stock, of which stock options to purchase (i) a total of 2,332,500 shares were awarded to named executive officers (includes shares granted to Mr. King during 2017 for his role as a non-employee director on the Company's Board), representing approximately 44.99% of all stock option awards in 2017, and (ii) a total of 750,000 shares were awarded to directors (excludes shares granted to Mr. King during 2017 for his role as a non-employee director on the Company's Board), representing approximately 14.47% of all stock option awards in 2017. Also, in 2017, we granted 450,000 restricted stock units, of which (i) 150,000 restricted stock units were awarded to named executive officers, representing approximately 33% of all restricted stock unit awards in 2017, and (ii) 300,000 restricted stock units were awarded to directors, representing approximately 66.67% of all restricted stock unit awards in 2017. 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 125,000 shares of our Common Stock for his role as a non-employee

director on the Company's Board in 2017 and did not receive any equity awards for his role as interim Chief Executive Officer in 2017.

Type of Equity Awards. Under our 2010 Equity Incentive Plan, we may award incentive stock options, within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, or 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 2017, we awarded stock options to our named executive officers, and in 2017, we also awarded restricted stock units to Mr. Fischer. In 2017, Mr. King received stock options for his role as a non-employee director on the Company's Board.

Equity Awards in 2017. In January 2017, our Compensation Committee reviewed equity compensation for our 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 Mr. King, received stock options as reflected in the 2017 Grants of Plan-Based Awards Table below, and Mr. Fischer also received restricted stock units as reflected in the 2017 Grants of Plan-Based Awards Table below. In 2017, Mr. King received stock options for his role as a non-employee director on the Company's Board as reflected in the 2017 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 2017, the employer-match contribution limit was \$10,800 per employee.

Employment Agreement and Separation Agreement

Seth H. Z. Fischer, our former Chief Executive Officer, entered into the Separation Agreement, effective December 31, 2017, which included the separation and release of claims agreement under his employment agreement with the Company dated September 3, 2013, which we refer to herein as the Employment Agreement. The Employment Agreement had an initial term of four years, renewing annually thereafter unless either party provided notice of non-renewal. The Employment Agreement provided for:

- A base salary subject to annual review and adjustment by the Board or the Compensation Committee, which was \$721,000 in 2017;
- Eligibility to receive an annual cash incentive payment for the achievement of performance goals established by the Board or the Compensation Committee, with an opportunity to earn an incentive target of not less than 80% of Mr. Fischer's base salary;
- A one-time stock option grant to purchase 1,000,000 shares of our Common Stock, with an exercise price equal to the fair market value of our Common Stock on the grant date, of which 1/36th of the total number of shares subject to the option shall vest each month, subject to Mr. Fischer's continued service to the Company on such dates;
- Housing assistance and benefits for costs incurred with temporary housing near our corporate headquarters of up to \$50,000 and a car allowance in Mr. Fischer's home state;
- In the event Mr. Fischer decided not to enroll in our medical plan, we would provide Mr. Fischer \$15,000 annually, payable in equal monthly installments during the term of his employment for such medical benefits;

- If Mr. Fischer's employment was terminated at any time on or after June 3, 2014 either (i) by the Company other than for Cause, non-renewal or due to Mr. Fischer's death or Disability or (ii) voluntarily by Mr. Fischer for Good Reason, then Mr. Fischer would be entitled to receive severance benefits as follows: (i) monthly severance payments during the 12-month severance period equal to Mr. Fischer's monthly base salary immediately prior to employment termination; (ii) monthly severance payments during the 12-month severance period equal to 1/12th of Mr. Fischer's target bonus for the fiscal year in which the termination occurs; (iii) a lump sum cash payment equal to the prorated amount of Mr. Fischer's target bonus for the fiscal year in which the termination occurs; and (iv) the unpaid portion of the annual bonus, if any, relating to any year prior to the calendar year of Mr. Fischer's termination of employment;
- If the Company provided Mr. Fischer with written notice of non-renewal of his Employment Agreement, then Mr. Fischer would be entitled to receive severance benefits as follows: (i) monthly severance payments for a six-month severance period following termination equal to Mr. Fischer's monthly base salary immediately prior to employment termination; (ii) monthly severance payments during the six-month severance period equal to 1/12th of Mr. Fischer's target bonus for the fiscal year in which the termination occurs; (iii) a lump sum cash payment equal to the prorated amount of Mr. Fischer's target bonus for the fiscal year in which the termination occurs; and (iv) the unpaid portion of the annual bonus, if any, relating to any year prior to the calendar year of Mr. Fischer's termination of employment;
- If Mr. Fischer's employment was terminated as a result of his death or Disability, then Mr. Fischer would be entitled to receive: (i) a lump sum cash payment equal to the prorated amount of Mr. Fischer's target bonus for the fiscal year in which the termination occurs; and (ii) the unpaid portion of the annual bonus, if any, relating to any year prior to the calendar year of Mr. Fischer's termination of employment; and
- Upon the closing of a Change of Control (as defined in the Employment Agreement), the vesting and exercisability of the option award granted to Mr. Fischer would automatically vest in full and become exercisable.

Under Mr. Fischer's Employment Agreement, a "Change of Control" occurred when:

- any person becomes a beneficial owner, directly or indirectly, of securities of the Company representing 40% or more of the total voting power represented by the Company's then outstanding voting securities;
- a merger or consolidation occurs, whether or not approved by the Board, other than a merger or consolidation that 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;
- the Company sells or disposes of all or substantially all of the Company's assets, provided that the licensing or sale of Qsymia/Qsiva and/or Avanafil or other products developed by the Company in any non-U.S. territory would not constitute a Change of Control; 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 September 3, 2013, 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.

On December 24, 2017, the Company and Mr. Fischer agreed that Mr. Fischer would depart from the role of Chief Executive Officer and resign from the Board of the Company, effective December 31, 2017. According to the Separation Agreement, effective December 31, 2017, Mr. Fischer will continue to serve as a strategic advisor to the Company for a one year period until December 31, 2018, during which time Mr. Fischer's outstanding equity awards under the Company's 2010 Equity Incentive Plan will continue to vest in accordance with their terms, subject to Mr. Fischer's continued service to the Company on each applicable vesting date. Additionally, the Separation Agreement provides for the amendment of all outstanding stock options to purchase shares of the Company's Common Stock under the Company's 2010 Equity Incentive Plan that are held by Mr. Fischer, such that the vested portion of each such stock option will be exercisable until the earlier of the expiration date specified in each stock option agreement or the date each such stock option is terminated in accordance with the Company's 2010 Equity Incentive Plan. Pursuant to the Separation Agreement, Mr. Fischer is entitled to receive: (a) twelve equal monthly payments of \$60,083.34 beginning no later than January 31, 2018, which is the equivalent of Mr. Fischer's 2017 base salary of \$721,000.08, (b) twelve equal monthly payments of \$48,066.67 beginning no later than January 31, 2018, which is the equivalent of 1/12th of Mr. Fischer's 2017 target bonus of \$576,800.04, and (c) a single lump sum cash payment of \$576,800.04 no later than January 31, 2018, which is one hundred percent of Mr. Fischer's 2017 target bonus.

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 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.

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

Section 162(m) of the Code imposes a limit on the amount of compensation that we may deduct in any one year with respect to our Chief Executive Officer and each of our next three most highly compensated executive officers (other than the Chief Financial Officer), unless certain specific criteria are satisfied. While we consider the deductibility of compensation when making our compensation decisions, we believe that it is important to maintain the flexibility to compensate our executives in a manner we believe will promote our corporate goals and be in the best interests of our stockholders. Our Compensation Committee therefore has not adopted a policy requiring all compensation to be deductible.

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 interim Chief Executive Officer, is entitled to receive four 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.

2017 Summary Compensation Table

The following table presents information for our fiscal year ended December 31, 2017 concerning the total compensation paid to or accrued for our interim Chief Executive Officer, former Chief Executive Officer, Chief Financial Officer, and each of our two 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 (\$)
Thomas B. King(6) Interim Chief Executive Officer and Director	2017	—	—	59,688	—	—	30,176	89,864
Mark K. Oki(7) Chief Financial Officer and Chief Accounting Officer	2017	362,250	—	—	210,595	100,561	10,800	684,206
	2016	350,000	—	—	52,510	126,000	4,000	532,510
	2015	71,794	30,000	—	146,520	20,825	—	269,139
John L. Slebir Senior Vice President, Business Development and General Counsel and Secretary	2017	468,650	—	—	239,313	162,622	10,800	881,385
	2016	452,800	—	—	351,000	203,760	10,600	1,018,160
	2015	438,800	—	185,726	433,245	191,975	10,600	1,260,346
Santosh T. Varghese, M.D. Chief Medical Officer	2017	421,900	—	—	210,595	75,942	10,800	719,237
	2016	407,600	—	—	308,880	146,736	10,600	873,816
	2015	395,000	—	143,562	227,571	138,250	10,600	914,983
Seth H. Z. Fischer(8) Former Chief Executive Officer and Director	2017	721,000	—	168,000	547,000	—	1,915,400	3,351,400
	2016	696,600	—	372,000	561,600	501,552	40,600	2,172,352
	2015	675,000	—	357,510	1,105,267	472,500	41,359	2,651,636

- (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 amount in this column for Mr. Oki represents a sign on bonus in connection with his employment with the Company. Please see footnote 7 below.
- (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 the Original Filing. See also the 2017 Grants of Plan-Based Awards table below for information on option awards and restricted stock unit award made in 2017.
- (4) The amounts for fiscal year 2017 in this column consist of cash bonus payments under the Annual Bonus Plan approved by the Compensation Committee in January 2018. 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) severance payments under Mr. Fischer's Separation Agreement; (iii) reimbursement for auto expenses and lodging expenses in Mountain View,

Sunnyvale, or Campbell, CA; (iv) excess medical waiver reimbursement; and (v) 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 (\$)	Severance Payments (\$)	Reimbursement for Auto Expenses and Lodging Expenses in Mountain View, Sunnyvale or Campbell, CA (\$)	Excess Medical Waiver Reimbursement (\$)	Board Fees (\$)
Thomas B. King	2017	—	—	—	—	30,176
Mark K. Oki	2017	10,800	—	—	—	—
	2016	4,000	—	—	—	—
	2015	—	—	—	—	—
John L. Slebir	2017	10,800	—	—	—	—
	2016	10,600	—	—	—	—
	2015	10,600	—	—	—	—
Santosh T. Varghese, M.D.	2017	10,800	—	—	—	—
	2016	10,600	—	—	—	—
	2015	10,600	—	—	—	—
Seth H. Z. Fischer	2017	10,800	1,874,600	15,000	15,000	—
	2016	10,600	—	15,000	15,000	—
	2015	10,600	—	15,759	15,000	—

- (6) The amount in the Stock Awards column represents the value of a stock option award received by Mr. King for his role as a non-employee director on the Company's Board, and the amount in the All Other Compensation column represents fees earned or paid in cash to Mr. King for his role as a non-employee director on the Company's Board. Effective December 31, 2017, Mr. King was appointed to serve as the Company's interim Chief Executive Officer. Mr. King has been on the Company's Board since May 24, 2017.
- (7) Mr. Oki was appointed as our Chief Financial Officer and Chief Accounting Officer effective as of October 19, 2015. For 2015, compensation shown was earned in 2015 and not annualized.
- (8) On December 24, 2017, the Company and Mr. Fischer agreed that Mr. Fischer would depart from the role of Chief Executive Officer, effective December 31, 2017. The Company and Mr. Fischer entered into the Separation Agreement, effective December 31, 2017. Please see "Compensation Discussion and Analysis" above for a description of the Separation Agreement.

2017 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, 2017.

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(\$)				
Thomas B. King(4)								
Stock Options	7/27/2017	—	—	—	—	125,000	1.15	59,688
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	—	—	—	—	—	—
Mark K. Oki								
Stock Options	1/27/2017	—	—	—	—	385,000	1.12	210,595
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	144,900	144,900	—	—	—	—
John L. Slebir								
Stock Options	1/27/2017	—	—	—	—	437,500	1.12	239,313
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	234,325	234,325	—	—	—	—
Santosh T. Varghese, M.D.								
Stock Options	1/27/2017	—	—	—	—	385,000	1.12	210,595
Restricted Stock Unit Award	—	—	—	—	—	—	—	—
Annual Bonus Plan	—	—	168,760	168,760	—	—	—	—
Seth H. Z. Fischer								
Stock Options	1/27/2017	—	—	—	—	1,000,000	1.12	547,000
Restricted Stock Unit Award	1/27/2017	—	—	—	150,000	—	—	168,000
Annual Bonus Plan	—	—	576,800	576,800	—	—	—	—

- (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 2017 under the Annual Bonus Plan approved by the Compensation Committee in January 2018. 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 in 2017 are shown in the Summary Compensation Table for 2017 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) Effective December 31, 2017, Mr. King was appointed to serve as the Company's interim Chief Executive Officer. Mr. King has been on the Company's Board since May 24, 2017. The information in the table above relates to a stock option award received by Mr. King for his role as a non-employee director on the Company's Board.

Outstanding Equity Awards at Fiscal Year-End

The following table presents certain information concerning the outstanding equity awards held as of December 31, 2017 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)
Thomas B. King(6)	24,305	100,695	1.15	7/27/2024		
Mark K. Oki	121,875	103,125	1.26	10/30/2022		
	44,802	48,698	1.06	1/22/2023		
	—	385,000	1.12	1/27/2024		
John L. Slebir	3,750	—	6.39	9/4/2019	1,400	700
	166,250	—	8.74	1/21/2021	8,094	4,047
	50,000	—	12.04	1/27/2022		
	70,000	—	12.39	1/25/2023		
	49,937	1,063	7.75	1/28/2021		
	179,666	66,734	2.74	1/23/2022		
	299,479	325,521	1.06	1/22/2023		
	—	437,500	1.12	1/27/2024		
Santosh T. Varghese, M.D.	200,000	—	24.23	4/25/2022	925	463
	52,500	—	12.39	1/25/2023	4,594	2,297
	33,291	709	7.75	1/28/2021		
	101,864	37,836	2.74	1/23/2022		
	263,541	286,459	1.06	1/22/2023		
	—	385,000	1.12	1/27/2024		
Seth H. Z. Fischer(7)	1,000,000	—	12.90	9/3/2020	20,625	10,313
	458,354	170,246	2.74	1/23/2022	37,500	18,750
	479,166	520,834	1.06	1/22/2023	150,000	75,000
	—	1,000,000	1.12	1/27/2024		

- (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. Fischer's option grant on September 3, 2013 provided for monthly vesting of 1/36th of the total number of options granted, commencing after September 3, 2013, subject to his continued service to the Company. 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.
- (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 (i) over a four year period with 25% vesting annually on each anniversary of the vesting commencement date, (ii) 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), (iii) with 50% vesting on January 22, 2017 and an additional 12.5% vesting on each of

April 22, 2017, July 22, 2017, October 22, 2017 and January 22, 2018, or (iv) over a four year period with 25% vesting on January 27, 2018 and an additional 1/16th vesting quarterly thereafter.

- (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 \$0.50 per share on December 29, 2017 (the last trading day of the year).
- (6) Effective December 31, 2017, Mr. King was appointed to serve as the Company's interim Chief Executive Officer. Mr. King has been on the Company's Board since May 24, 2017. The information in the table above relates to a stock option award received by Mr. King for his role as a non-employee director on the Company's Board.
- (7) According to Mr. Fischer's Separation Agreement with the Company, Mr. Fischer will continue to serve as a strategic advisor to the Company for a one year period until December 31, 2018, during which time Mr. Fischer's outstanding equity awards under the Company's 2010 Equity Incentive Plan will continue to vest in accordance with their terms, subject to Mr. Fischer's continued service to the Company on each applicable vesting date. Additionally, the Separation Agreement provides for the amendment of all outstanding stock options to purchase shares of the Company's Common Stock under the Company's 2010 Equity Incentive Plan that are held by Mr. Fischer, such that the vested portion of each such stock option will be exercisable until the earlier of the expiration date specified in each stock option agreement or the date each such stock option is terminated in accordance with the Company's 2010 Equity Incentive Plan. Please see "Compensation Discussion and Analysis" above for a description of the Separation Agreement.

2017 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, 2017 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>
Thomas B. King	—	—
Mark K. Oki	—	—
John L. Slebir	7,875	8,820
Santosh T. Varghese, M.D.	4,600	5,152
Seth H. Z. Fischer	279,000	310,980

- (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, 2017, 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:(1)	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(\$)	Written Notice of Non-Renewal of Employment Agreement(\$)	Death or Disability(\$)
Thomas B. King(2)					
Base salary	—	—	—	—	—
Bonus	—	—	—	—	—
Medical continuation	—	—	—	—	—
Outplacement services	—	—	—	—	—
Value of accelerated stock options(3)	—	—	—	—	—
Value of accelerated restricted stock units(4)	—	—	—	—	—
Mark K. Oki					
Base salary	271,688	—	543,375	—	—
Bonus	227,765	—	336,440	—	—
Medical continuation	25,425	—	50,850	—	—
Outplacement services	—	—	—	—	—
Value of accelerated stock options(3)	—	—	—	—	—
Value of accelerated restricted stock units(4)	—	—	—	—	—
John L. Slebir					
Base salary	351,488	—	702,975	—	—
Bonus	383,707	—	559,451	—	—
Medical continuation	25,425	—	50,850	—	—
Outplacement services	—	—	—	—	—
Value of accelerated stock options(3)	—	—	—	—	—
Value of accelerated restricted stock units(4)	2,374	—	4,747	—	—
Santosh T. Varghese, M.D.					
Base salary	316,425	—	632,850	—	—
Bonus	276,345	—	402,915	—	—
Medical continuation	25,425	—	50,850	—	—
Outplacement services	—	—	—	—	—
Value of accelerated stock options(3)	—	—	—	—	—
Value of accelerated restricted stock units(4)	1,380	—	2,760	—	—

- (1) Our former Chief Executive Officer, Mr. Fischer, is not included in this table. On December 24, 2017, the Company and Mr. Fischer agreed that Mr. Fischer would depart from the role of Chief Executive Officer, effective December 31, 2017. The Company and Mr. Fischer entered into the Separation Agreement, effective December 31, 2017. Pursuant to the Separation Agreement, Mr. Fischer is entitled to receive: (a) twelve equal monthly payments of \$60,083.34 beginning no later than January 31, 2018, which is the equivalent of Mr. Fischer's 2017 base salary of \$721,000.08, (b) twelve equal monthly payments of \$48,066.67 beginning no later than January 31, 2018, which is the equivalent of 1/12th of Mr. Fischer's 2017 target bonus of \$576,800.04, and (c) a single lump sum cash payment of \$576,800.04 no later than January 31, 2018, which is one hundred percent of Mr. Fischer's 2017 target bonus. Please see "Compensation Discussion and Analysis" above for further details.

- (2) Effective December 31, 2017, Mr. King was appointed to serve as the Company's interim Chief Executive Officer. Mr. King does not currently have any termination or change of control benefits provided to him under any agreement.
- (3) 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 29, 2017 (the last trading day of the year) of \$0.50 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 stock on December 29, 2017 (the last trading day of the year).
- (4) 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) \$0.50, which is the closing price of our Common Stock on December 29, 2017 (the last trading day of the year), and (ii) the number of shares of our Common Stock underlying unvested restricted stock units.

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 Interim Chief Executive Officer

Our interim Chief Executive Officer 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 Former Chief Executive Officer

Termination and change of control benefits for Mr. Fischer were set forth in his Employment Agreement and his Separation Agreement. On December 24, 2017, the Company and Mr. Fischer agreed that Mr. Fischer would depart from the role of Chief Executive Officer, effective December 31, 2017. The Company and Mr. Fischer entered into the Separation Agreement, effective December 31, 2017. Please see "Compensation Discussion and Analysis" above for further details.

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

We have entered into a Second Amended and Restated Change of Control and Severance Agreement, or the Amended Agreement, with each of our named executive officers, other than Messrs. Fischer and 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 nine 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 nine 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 nine 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, 2015, 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, 2017, excluding our former Chief Executive Officer. We annualized the base salary of all employees who were hired in 2017 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 2017 above. The annual total compensation of our median employee was \$123,027, resulting in a ratio of 27:1. The above ratio and annual total compensation amount have been calculated using methodologies and assumptions permitted by SEC rules. Mr. King was appointed to serve as the Company's interim Chief Executive Officer, effective December 31, 2017, and did not receive compensation for his role as interim Chief Executive Officer in 2017. Given this, we did not calculate the pay ratio using our interim Chief Executive Officer.

Director Compensation

The following table sets forth the compensation paid by us during the fiscal year ended December 31, 2017 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)
Thomas B. King(5)(6)	2017	30,176	—	59,688	—	89,864
David Y. Norton(5)(7)	2017	85,000	60,000	44,250	11,938	201,188
Jorge Plutzky, M.D.(5)(7)	2017	58,000	60,000	44,250	14,371	176,621
Eric W. Roberts(5)(7)	2017	72,000	60,000	44,250	25,006	201,256
Herman Rosenman(5)(7)	2017	87,000	60,000	44,250	16,820	208,070
Allan L. Shaw(5)(7)(8)	2017	86,000	60,000	44,250	22,340	212,590
Mayuran Sriskandarajah(5)(7)	2017	3,692	60,000	—	2,916	66,608

- (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.

- (2) As of December 31, 2017, the aggregate number of restricted stock units outstanding for each non-employee director was as follows:

<u>Name</u>	<u>Stock awards outstanding at 12/31/17</u>
Thomas B. King	—
David Y. Norton	—
Jorge Plutzky, M.D.	—
Eric W. Roberts	12,501
Herman Rosenman	—
Allan L. Shaw	12,501
Mayuran Sriskandarajah	—

- (3) As of December 31, 2017, the aggregate number of stock options outstanding for each non-employee director was as follows:

<u>Name</u>	<u>Stock options outstanding at 12/31/17</u>
Thomas B. King	125,000
David Y. Norton	225,000
Jorge Plutzky, M.D.	225,000
Eric W. Roberts	175,000
Herman Rosenman	225,000
Allan L. Shaw	175,000
Mayuran Sriskandarajah	—

- (4) During 2017, 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, and Mr. King has served as a director of the Company since May 2017. Mr. Sriskandarajah served as a director of the Company from September 2015 to January 2017.
- (6) Mr. King has been on the Company's Board since May 24, 2017. Effective December 31, 2017, Mr. King was appointed to serve as the Company's interim Chief Executive Officer. Due to this appointment, Mr. King will not continue to participate in the Company's cash and equity compensation arrangement for non-employee directors.
- (7) From October 2015 to February 2018, the Audit Committee consisted of Messrs. Norton, Rosenman and Shaw, with Mr. Rosenman designated as the Chairman of the Audit Committee. Since February 2018, the Audit Committee has consisted of Messrs. Norton and Rosenman and Dr. Plutzky, with Mr. Rosenman designated as the Chairman of the Audit Committee. From October 2015 to January 2017, the Nominating and Governance Committee consisted of Messrs. Norton, Roberts and Sriskandarajah, with Mr. Sriskandarajah designated as the Chairman of the Nominating and Governance Committee. Since January 2017, the Nominating and Governance Committee has 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 since February 2018. From October 2015 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. Since February 23, 2018, the Compensation Committee has consisted of Messrs. Norton, Roberts 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, the Corporate Development Committee has consisted of Messrs. Norton, Roberts and Rosenman 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) 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. As a continuing Board member, Mr. Shaw will continue to participate in the Company's cash and equity compensation arrangement for non-employee directors.

On April 29, 2016, the Board approved changes to the cash and equity compensation arrangement for the Company's non-employee directors.

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 Board (i) a non-qualified stock option to purchase 125,000 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, or 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 2010 Equity Incentive 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 Board (i) a non-qualified stock option to purchase 100,000 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, or 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 (as defined in the 2010

Equity Incentive 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.

Options granted under the 2010 Equity Incentive Plan to non-employee directors have a term of seven years unless terminated sooner upon termination of status as a director or otherwise pursuant to the 2010 Equity Incentive Plan. Such options are transferable by the non-employee director only in certain limited circumstances, and each option is exercisable during the lifetime of the non-employee director only by such non-employee director or a permitted transferee.

On October 27, 2017, the Board approved changes to the equity compensation arrangement for the Company's non-employee directors. No changes were made to the cash compensation arrangement for the Company's non-employee directors.

Under the new 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 225,000 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, or 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 2010 Equity Incentive 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 150,000 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, or 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 October 27, 2017, the Compensation Committee of the Board approved Subsequent Grants under the new equity compensation arrangement for a non-qualified stock option to purchase 150,000 shares of our Common Stock for each of David Y. Norton, Jorge Plutzky, M.D., Eric W. Roberts, Herman Rosenman and Allan L. Shaw.

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.

Compensation Committee Interlocks and Insider Participation

None of our directors who served on our Compensation Committee during 2017 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 2017 until February 1, 2018, and on February 26, 2018, he entered into a Consulting Agreement with the Company, effective February 1, 2018. During 2017, 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 Roberts, Rosenman and Norton. None of the members of our Compensation Committee during 2017 currently has or has had any relationship or transaction with a related person requiring disclosure pursuant to Item 404 of Regulation S-K.

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 Amendment No. 1 to Annual Report on Form 10-K for the year ended December 31, 2017.

COMPENSATION COMMITTEE
OF THE BOARD OF DIRECTORS

David Y. Norton
Eric W. Roberts
Herman Rosenman

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**Equity Compensation Plan Information**

Information about our equity compensation plans at December 31, 2017, 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)	14,538,282	\$ 3.34	4,260,254
Equity compensation plans not approved by stockholders(2)	—	—	—
Total	14,538,282	\$ 3.34	4,260,254

- (1) Consists of three plans: our 1994 Employee Stock Purchase Plan, our 2001 Stock Option Plan and our 2010 Equity Incentive Plan.
- (2) The Company currently has no instruments outstanding or available for issuance under non-approved equity compensation plans.
- (3) Includes 4,043,868 shares for the 2010 Equity Incentive Plan and 216,386 shares for the 1994 Employee Stock Purchase Plan.

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 13, 2018 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 Amendment; 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)	8,231,154	7.8%
Non-Employee Directors		
David Y. Norton(3)	220,245	*
Jorge Plutzky, M.D.(4)	215,894	*
Eric W. Roberts(5)	176,407	*
Herman Rosenman(6)	216,074	*
Allan L. Shaw(7)	207,875	*
Named Executive Officers		
Thomas B. King(8)	124,999	*
Mark K. Oki(9)	328,186	*
John L. Slebir(10)	1,187,221	1.1%
Santosh T. Varghese, M.D.(11)	939,849	*
Seth H. Z. Fischer(12)	2,828,998	2.7%
All directors and executive officers as a group (10 persons)(13)	6,445,748	6.1%

* Less than 1%

(1) Applicable percentage ownership is based on 106,041,014 shares of Common Stock outstanding as of April 13, 2018. 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 and restricted stock units held by that person that will be exercisable/vested within 60 days of April 13, 2018 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 8,231,154 shares of Common Stock as to which Renaissance Technologies LLC and its affiliates (together "Renaissance Technologies") have sole voting power with respect to 7,740,226 shares of Common Stock, sole dispositive power with respect to 7,766,177 shares of Common Stock and shared dispositive power with respect to 464,977 shares of Common Stock. Beneficial ownership information is based on a Schedule 13G filed with the SEC on February 14, 2018. The address of Renaissance Technologies is 800 Third Avenue, New York, New York, 10022.

- (3) Consists of (i) 57,745 shares of Common Stock and (ii) 162,500 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (4) Consists of (i) 53,394 shares of Common Stock and (ii) 162,500 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (5) Consists of (i) 63,907 shares of Common Stock, (ii) 2,778 restricted stock units vested within 60 days of April 13, 2018, and (iii) 109,722 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (6) Consists of (i) 48,574 shares of Common Stock, (ii) 5,000 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, and (iii) 162,500 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (7) Consists of (i) 45,375 shares of Common Stock, (ii) 2,778 restricted stock units vested within 60 days of April 13, 2018, and (iii) 159,722 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (8) Consists of 124,999 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (9) Consists of 328,186 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (10) Consists of (i) 130,474 shares of Common Stock and (ii) 1,056,747 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (11) Consists of (i) 87,768 shares of Common Stock and (ii) 852,081 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (12) Consists of (i) 379,125 shares of Common Stock, (ii) 9,375 restricted stock units vested within 60 days of April 13, 2018, and (iii) 2,440,498 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.
- (13) Includes (i) 14,931 restricted stock units vested within 60 days of April 13, 2018 and (ii) 5,559,455 options to purchase shares of Common Stock exercisable within 60 days of April 13, 2018.

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

Change of Control Agreements with Executive Officers

Our current executive officers, excluding our interim Chief Executive Officer and former Chief Executive Officer, have Second Amended and Restated Change of Control and Severance Agreements that provide for certain benefits in the event of a Change of Control. In addition, our former Chief Executive Officer's Employment Agreement provided for certain benefits in the event of a Change of Control. 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. These agreements are discussed in more detail in the sections entitled "Compensation and Discussion Analysis" and "Potential Payments Upon Termination or Change of Control for each Named Executive Officer" found elsewhere in this Amendment.

Our former Chief Executive Officer entered into the Separation Agreement, effective December 31, 2017, with the Company, which provided for severance payments. Please see "Compensation Discussion and Analysis" found elsewhere in this Amendment for further details.

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

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 will provide 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 will remain in effect until June 30, 2018 unless terminated earlier pursuant to the Consulting Agreement or extended by written agreement of the parties. 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 will also be 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 will recommend at the next meeting of the Compensation Committee of the Board that Mr. Shaw be granted a stock option to purchase 300,000 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 300,000 shares of our Common Stock at a price per share equal to the closing price of our Common Stock on the date of grant (\$0.49 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: 50,000 shares

subject to the option will vest on the date of grant, 50,000 shares subject to the option will vest on June 30, 2018, 100,000 shares subject to the option will vest on December 31, 2018 and 100,000 shares subject to the option will vest on June 30, 2019. The option has a 7-year term from the date of grant and an exercise period equal to 6 months from the date Mr. Shaw ceases to be a Service Provider (as defined in the Company's 2010 Equity Incentive Plan).

In addition, Mr. Shaw will be eligible to receive an additional fully vested stock option to purchase 100,000 shares of our Common Stock at the discretion of the Board.

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.

Board Independence

As required under the applicable listing standards of The Nasdaq Stock Market, 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 tests, 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. Consistent with these requirements, our Board has determined that four of our current six directors each satisfy the director independence standards of The Nasdaq Stock Market. Our Board determined that Thomas B. King, our interim 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 role as a consultant with the Company. Messrs. King and Shaw are not members of any of the committees of our Board, each of which is composed of only independent directors.

Item 14. Principal Accounting Fees and Services**Principal Accountant Fees and Services**

The Audit Committee engaged OUM & Co. LLP, or OUM, as our independent registered public accounting firm beginning with the fiscal year ended December 31, 2005. The following table presents fees for professional services rendered by OUM for the audit of our annual financial statements for fiscal years 2017 and 2016 and fees billed for audit-related services, tax services and all other services rendered by OUM for these periods:

	2017	2016
Audit Fees(1)	\$ 436,726	\$ 458,166
Audit-Related Fees(2)	—	—
Tax Fees(3)	—	—
All Other Fees(4)	—	—
Total Fees	\$ 436,726	\$ 458,166

- (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 the independent registered public accounting firm, or Independent Auditor, during a specified period without the need to obtain specific pre-approval from the Audit Committee. The Independent Auditor provides an annual engagement letter to the Audit Committee with a reasonably detailed description of class of services proposed to be provided by the Independent Auditor during the period covered by the engagement letter and related estimated fees, and the Audit Committee pre-approves such engagement letter as appropriate. By approval of the engagement letter, the services in that engagement letter will have specific pre-approval. The services may include audit, audit-related, tax and all other services, and such service or class of services is subject to the pre-approved limit. 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. Once such services have been rendered by the Independent Auditor and approved by the Audit Committee, the pre-approved limits of the annual engagement letter are re-established. If it is anticipated that the service will exceed the annual pre-approved limits, prior to commencing the audit or other permitted non-audit service, the Audit Committee will pre-approve the particular service on a case-by-case basis. No service that is absent from the record of class-approved services in the annual engagement letter may be commenced without specific pre-approval. 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. The

Independent Auditor and our senior management periodically report to the Audit Committee regarding the extent of services provided by the Independent Auditor and the related fees for the services performed, as needed. In 2017, all audit services were pre-approved and reviewed in accordance with our policy; in 2017, there were no non-audit services.

PART IV

Item 15. *Exhibits, Financial Statement Schedules*

The financial statements, financial statement schedules and exhibits listed in the exhibit index of the Original Filing are filed with, or incorporated by reference in, this Amendment.

VIVUS, INC.
AMENDMENT NO. 1 TO ANNUAL REPORT ON FORM 10-K FOR
THE YEAR ENDED DECEMBER 31, 2017
EXHIBIT INDEX

Exhibit Number	Description
31.3	Certification of Interim Chief Executive Officer pursuant to Rules 13a-14 and 15d-14 promulgated under the Securities Exchange Act of 1934, as amended
31.4	Certification of Chief Financial Officer pursuant to Rules 13a-14 and 15d-14 promulgated under the Securities Exchange Act of 1934, as amended

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Amendment to be signed on its behalf by the undersigned, thereunto duly authorized:

VIVUS, INC.,
a Delaware Corporation

By: /s/ THOMAS B. KING

Thomas B. King
Interim Chief Executive Officer
(Principal Executive Officer)

Date: April 26, 2018

**CERTIFICATION OF INTERIM CHIEF EXECUTIVE OFFICER PURSUANT
TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Thomas B. King, Interim Chief Executive Officer, certify that:

1. I have reviewed this Amendment No. 1 to Annual Report on Form 10-K of VIVUS, Inc. for the year ended December 31, 2017; and
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: April 26, 2018

By: /s/ THOMAS B. KING

Name: Thomas B. King

Title: *Interim Chief Executive Officer*

QuickLinks

[Exhibit 31.3](#)

[CERTIFICATION OF INTERIM CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002](#)

**CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT
TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Mark K. Oki, Chief Financial Officer and Chief Accounting Officer, certify that:

1. I have reviewed this Amendment No. 1 to Annual Report on Form 10-K of VIVUS, Inc. for the year ended December 31, 2017; and
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: April 26, 2018

By: /s/ MARK K. OKI

Name: Mark K. Oki
Title: *Chief Financial Officer and
Chief Accounting Officer*

QuickLinks

[Exhibit 31.4](#)

[CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002](#)