
Section 1: DEF 14A (DEFINITIVE PROXY STATEMENT)

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

**SCHEDULE 14A
(Rule 14a-101)**

**Information Required in Proxy Statement
Schedule 14A Information**

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

REPLIGEN CORPORATION

(Name of Registrant as Specified in its Charter)

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

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i) (4) and 0-11.

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

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

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

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

Fee paid previously with preliminary materials.

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

(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed:

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REPLIGEN CORPORATION
Notice of Annual Meeting of Stockholders
May 15, 2019

To the Stockholders:

The Annual Meeting of our Stockholders will be held on Wednesday, May 15, 2019 at 8:00 a.m. EDT at Repligen Corporation's headquarters located at 41 Seyon Street, Building 1, Suite 100, Waltham, Massachusetts 02453 (see directions attached as Appendix A to the proxy statement) for the following purposes:

1. To elect seven directors, nominated by the Board of Directors, as more fully described in the accompanying proxy statement;
2. To ratify the selection of Ernst & Young LLP as independent registered public accountants for the fiscal year ending December 31, 2019;
3. To consider and act upon an advisory vote to approve the compensation of our named executive officers; and
4. To consider and act upon any other business which may properly come before the meeting.

The Board of Directors has fixed the close of business on March 29, 2019 as the record date for the meeting. All stockholders of record on that date are entitled to notice of and to vote at the meeting.

Whether or not you plan to attend the meeting, please complete and return the enclosed proxy in the envelope provided *or* vote by telephone *or* the Internet pursuant to instructions provided with the proxy. Stockholders of record as of March 29, 2019 are encouraged and cordially invited to attend the 2019 Annual Meeting of Stockholders (see directions attached as Appendix A to the proxy statement).

By Order of the Board of Directors



Jon K. Snodgres
Secretary

Waltham, Massachusetts
April 18, 2019

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**REPLIGEN CORPORATION
PROXY STATEMENT**

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GENERAL INFORMATION

This proxy statement is furnished in connection with the solicitation of proxies by the Board of Directors (the “Board of Directors”, or the “Board”) of Repligen Corporation (“Repligen”, or the “Company”), for use at the Annual Meeting of Stockholders, to be held on Wednesday, May 15, 2019 (the “Annual Meeting”) at the time and place set forth in the Notice of Annual Meeting, and at any adjournment or postponement thereof.

Repligen’s Annual Report to Stockholders, containing financial statements for the fiscal year ended December 31, 2018 (the “Annual Report”), is being provided together with this proxy statement to all stockholders entitled to vote at the Annual Meeting. It is anticipated that this proxy statement and the accompanying proxy will be first sent or given to stockholders on or about April 18, 2019.

Voting

Stockholders may vote in person or by proxy by completing, signing, dating and returning the accompanying proxy card or by voting by telephone or via the Internet in accordance with the instructions listed on the proxy card. Execution of a proxy card will not in any way affect a stockholder’s right to attend the Annual Meeting and vote in person.

Any proxy given pursuant to this solicitation may be revoked by the person giving it any time before the taking of the vote at the Annual Meeting. Proxies may be revoked by: (1) giving written notice of revocation to the Secretary of Repligen at any time before the taking of the vote at the Annual Meeting; (2) duly executing a later-dated proxy card relating to the same shares and delivering it to the Secretary of Repligen or by telephone or the Internet, in accordance with the instructions listed on the proxy card; or (3) attending the Annual Meeting and voting in person (although attendance at the Annual Meeting will not in and of itself constitute a revocation of a proxy). For those stockholders who submit a proxy by telephone or the Internet, the date on which the proxy is submitted in accordance with the instructions listed on the proxy card is deemed to be the date of the proxy. Any written notice of revocation or subsequent proxy should be sent so as to be delivered to the mailing address of our principal executive offices at Repligen Corporation, Attention: Secretary, 41 Seyon Street, Building #1, Suite 100, Waltham, Massachusetts 02453, at or before the taking of the vote at the Annual Meeting.

Each of the persons named as attorneys-in-fact on the proxy cards is a director, officer and/or employee of Repligen. All properly executed proxy cards returned in time to be counted at the Annual Meeting will be voted as stated below under the heading “Voting Procedures.” Any stockholder submitting a proxy has the right to abstain from voting for any individual nominee to the Board of Directors by writing that nominee’s number on the space provided on the proxy card, checking the box next to the name of such individual if voting by proxy via the Internet or, if using the telephone to vote by proxy, by following the verbal instructions for entering the two digit number appearing on the proxy card immediately before the name of such individual. Where a choice has been specified on the proxy with respect to a matter, the shares represented by the proxy will be voted in accordance with such specifications. If a validly executed proxy card is returned without indicating how the shares should be voted on a matter, such proxies will be voted FOR election of the director nominees; FOR ratification of the appointment of the independent registered public accountants; and FOR the approval, on an advisory basis, of the compensation of our named executive officers.

Other than (i) the election of directors, (ii) the ratification of Ernst & Young LLP, and (iii) the advisory vote to approve the compensation of our named executive officers, the Board knows of no other matters to be presented at the Annual Meeting. If any other matter should be properly presented at the Annual Meeting upon which a vote may be taken, shares represented by all proxies received by the Board will be voted with respect thereto in accordance with the judgment of the persons named as attorneys-in-fact in the proxies.

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting to be Held on May 15, 2019

The Company's Annual Report and this proxy statement will be available at www.proxyvote.com.

Voting Procedures

The representation, in person or by proxy, of at least a majority of the outstanding shares of Repligen common stock with a par value of \$0.01 ("Common Stock") entitled to vote at the Annual Meeting is necessary to constitute a quorum for the transaction of business. Shares represented by proxies that contain one or more abstentions or broker "non-votes," are counted as present or represented for purposes of determining the presence or absence of a quorum for the Annual Meeting. A broker "non-vote" occurs when a broker or other nominee holding shares for a beneficial owner votes on one proposal, but does not vote on another proposal because, with respect to such other proposal, the broker does not have discretionary voting power and has not received instructions from the beneficial owner. Broker "non-votes" are not considered voted for the particular matter. If a stockholder holds shares in "street-name" through a broker or other nominee, absent voting instructions from the stockholder, such shares will not be counted as voting and will have no effect on those proposals, other than Proposal No. 2, requiring approval by a majority of the votes cast. Proposal No. 2 to ratify the appointment of the Company's independent registered public accounting firm is a "routine" matter for which a broker does not need voting instruction in order to vote a stockholder's shares.

Election of Directors. In accordance with our by-laws, directors are elected by a majority of the votes cast, in person or by proxy, at the Annual Meeting. Abstentions and broker non-votes will not be counted as voting with respect to the election of directors, and, therefore, will not have an effect on the election of director nominees.

Ratification of Independent Accountants. For the ratification of the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2019, an affirmative vote of a majority of the shares present, in person or represented by proxy, and voting on such matter is required for approval. Abstentions shall be included in determining the number of shares present and entitled to vote on the proposal, thus having the effect of a vote against the proposal. Broker "non-votes", if any, are not counted in determining the number of shares present and entitled to vote and will therefore have no effect on the outcome.

Advisory Vote to Approve the Compensation of our Named Executive Officers. For the advisory vote to approve the compensation of our named executive officers, the affirmative vote of the majority of shares present, in person or represented by proxy, and voting on that matter is required for approval. Abstentions and broker "non-votes" are included in the number of shares present or represented and voting but are not considered votes cast on the matter, and therefore will have no effect on the outcome of this proposal.

Other Matters. The Board knows of no other matters to be presented at the Annual Meeting. If any other matter should be properly presented at the Annual Meeting upon which a vote may be taken, the persons named on the enclosed proxy card will have discretionary authority to vote the shares represented by such proxies in accordance with their best judgment.

Cost of Proxy Solicitation

The cost of solicitation will be borne by Repligen and, in addition to directly soliciting stockholders by mail, Repligen may request banks and brokers to solicit their customers who have stock of Repligen registered in the name of the nominee and, if so, will reimburse such banks and brokers for their reasonable out-of-pocket costs. Solicitation by officers and employees of Repligen may also be made of some stockholders in person or by mail or telephone following the original solicitation.

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Record Date and Voting Securities

Only stockholders of record as of March 29, 2019 (the “Record Date”), are entitled to notice of and to vote at the Annual Meeting and any adjournments or postponements thereof. As of the Record Date, the Company had 44,073,998 shares of Common Stock outstanding and entitled to vote. Each outstanding share of Common Stock entitles the record holder to one vote.

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SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS, DIRECTORS AND MANAGEMENT

The following table sets forth certain information regarding beneficial ownership of shares of Repligen's Common Stock as of March 29, 2019 (i) by each person who is known by the Company to beneficially own more than 5% of the outstanding shares of Common Stock; (ii) by each director or nominee of the Company; (iii) by each named executive officer of the Company and (iv) by all directors and executive officers of Repligen as a group. The business address of each director and executive officer is Repligen Corporation, 41 Seyon Street, Building #1, Suite 100, Waltham, Massachusetts 02453.

<u>Beneficial Owner</u>	<u>Amount and Nature of Beneficial Ownership (1)</u>	<u>Percent of Class (2)</u>
BlackRock, Inc. (3)	5,584,086	12.7%
Roy T. Eddleman (4)	4,258,864	9.7%
The Vanguard Group (5)	4,030,671	9.1%
Tony J. Hunt (6)	304,326	*
Jon K. Snodgres (7)	33,657	*
Ralf Kuriyel (8)	19,151	*
Karen A. Dawes (9)	167,226	*
Nicolas M. Barthelemy (10)	7,490	*
Glenn L. Cooper (11)	113,578	*
John G. Cox (12)	43,049	*
Glenn P. Muir (13)	37,559	*
Thomas F. Ryan, Jr. (14)	11,955	*
All directors, nominees and executive officers as a group (9 persons) (15)	737,991	1.7%

* Less than one percent

- (1) Beneficial ownership, as such term is used herein, is determined in accordance with Rule 13d-3 promulgated under the Securities Exchange Act of 1934, or the Exchange Act, and includes voting and/or investment power with respect to shares of Common Stock of Repligen. Unless otherwise indicated, the named person possesses sole voting and investment power with respect to the shares. The shares shown include shares that such person has the right to acquire within 60 days of March 29, 2019.
- (2) Percentages of ownership are based upon 44,073,998 shares of Common Stock issued and outstanding as of March 29, 2019. Shares of Common Stock that may be acquired pursuant to options that are exercisable or restricted stock units that will vest within 60 days of March 29, 2019 are deemed outstanding for computing the percentage ownership of the person holding such options but are not deemed outstanding for the percentage ownership of any other person.
- (3) Based solely on a Schedule 13G filed on January 31, 2019 for the December 31, 2018 filing event. BlackRock, Inc.'s business address is 55 East 52nd Street, New York, NY 10055. BlackRock, Inc. has sole voting power with respect to 5,504,659 shares and sole dispositive power with respect to 5,584,086 shares.
- (4) Based solely on a Schedule 13G filed on January 31, 2019 for the December 31, 2018 filing event. Mr. Eddleman's business address is c/o TroyGould PC, 1801 Century Park East, 16th Floor, Los Angeles, CA 90067. Mr. Eddleman has sole voting power and sole dispositive power with respect to 4,258,864 shares.
- (5) Based solely on a Schedule 13G/A filed on February 11, 2019 for the December 31, 2018 filing event. The Vanguard Group's business address is 100 Vanguard Blvd., Malvern, PA 19355. The Vanguard Group has sole voting power with respect to 80,754 shares and sole dispositive power with respect to 3,948,117 shares.
- (6) Includes 242,307 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019 and 5,000 restricted stock units which will vest within 60 days of March 29, 2019.
- (7) Includes 18,068 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019.

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- (8) Includes 8,283 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019.
- (9) Includes 78,189 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019 and 6,080 restricted stock units which will vest within 60 days of March 29, 2019.
- (10) Includes 3,304 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019 and 1,486 restricted stock units which will vest within 60 days of March 29, 2019.
- (11) Includes 73,792 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019 and 1,486 restricted stock units which will vest within 60 days of March 29, 2019.
- (12) Includes 36,736 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019 and 1,486 restricted stock units which will vest within 60 days of March 29, 2019.
- (13) Includes 33,104 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019 and 1,486 restricted stock units which will vest within 60 days of March 29, 2019.
- (14) Includes 8,730 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019 and 1,486 restricted stock units which will vest within 60 days of March 29, 2019.
- (15) See footnotes 6 through 14 above. Includes 502,513 shares issuable pursuant to stock options which are exercisable within 60 days of March 29, 2019 and 18,510 restricted stock units which will vest within 60 days of March 29, 2019.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires Repligen's directors, officers, and holders of more than ten percent of Repligen's Common Stock, (collectively, the "Reporting Persons"), to file with the United States Securities and Exchange Commission, or the SEC, initial reports of ownership and reports of changes in ownership of Common Stock of Repligen. Such Reporting Persons are required by SEC regulations to furnish Repligen with copies of all Section 16(a) reports they file. Based on its review of the copies of such filings received by it with respect to the fiscal year ended December 31, 2018, the Company believes that all required persons complied with all Section 16(a) filing requirements.

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PROPOSAL NO. 1
ELECTION OF DIRECTORS

There are seven nominees for director, all of whom are current directors of Repligen that have been nominated by the Nominating and Corporate Governance Committee and the Board for re-election. The authorized number of directors is currently fixed at seven. If elected, each of the director nominees will hold office until the 2020 Annual Meeting of Stockholders and until his or her successor has been duly elected and qualified, or until his or her earlier death, resignation or removal.

<u>Nominee's Name</u>	<u>Year First Elected Director</u>	<u>Position(s) with the Company</u>
Tony J. Hunt	2015	President, Chief Executive Officer and Director
Karen A. Dawes	2005	Director, Chairperson of the Board
Nicolas M. Barthelemy	2014	Director
Glenn L. Cooper	2009	Director
John G. Cox	2013	Director
Glenn P. Muir	2015	Director
Thomas F. Ryan, Jr.	2003	Director

Shares represented by all proxies received by the Board and not marked or voted so as to abstain from voting for any individual director or for any group of directors will be voted, unless otherwise indicated, FOR the election of the nominees named above. Proxies may not be voted for a greater number of persons than the number of nominees named. The Board knows of no reason why any nominee should be unable or unwilling to serve, but if any nominee should be unable or unwilling to serve, proxies will be voted in accordance with the judgment of the persons named as attorneys-in-fact on the proxy cards with respect to the directorship for which that nominee was unable or unwilling to serve.

Proposal No. 1 relates solely to the election of seven directors nominated by the Company and does not include any other matters relating to the election of directors, including without limitation, the election of directors nominated by any stockholders of the Company.

The Board of Directors unanimously recommends a vote FOR each of the nominees for election as directors of the Company. If authorized proxies are submitted without specifying an affirmative or negative vote on any proposal, the shares represented by such proxies will be voted in favor of the Board of Directors' recommendations.

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OCCUPATIONS OF DIRECTORS AND EXECUTIVE OFFICERS

Repligen's executive officers are appointed by, and serve at the discretion of, the Board of Directors. Each executive officer is a full-time employee of Repligen. The directors, including director nominees, and executive officers of Repligen as of March 29, 2019, are as follows:

<u>Name</u>	<u>Age</u>	<u>Positions</u>
Tony J. Hunt	55	President, Chief Executive Officer and Director
Jon K. Snodgres	53	Chief Financial Officer
Ralf Kuriyel	60	Senior Vice President, Research and Development
Nicolas M. Barthelemy (1)(3)	53	Director
Glenn L. Cooper (1)	66	Director
John G. Cox (2)	56	Director
Karen A. Dawes (3)	67	Director, Chairperson of the Board
Glenn P. Muir (1)(2)	60	Director
Thomas F. Ryan, Jr. (2)(3)	77	Director

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

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BIOGRAPHICAL INFORMATION

The following paragraphs provide information about our directors and executive officers. The information presented includes information about each of our director's specific experience, qualifications, attributes and skills that led our Board of Directors to the conclusion that he or she should serve as a director.

Executive Officers

Tony J. Hunt was named our President and Chief Executive Officer and has served on our Board since May 2015. He joined Repligen in May 2014 as Chief Operating Officer, overseeing commercial and manufacturing operations. Before coming to Repligen, Mr. Hunt was President of Bioproduction at Life Technologies, a global life sciences company which was acquired by Thermo Fisher Scientific in 2014. He joined Life Technologies in 2008, serving as General Manager of Bioproduction Chromatography and Pharma Analytics before being named President of Bioproduction in 2011. From 2000 to 2008, Mr. Hunt was with Applied Biosystems as Senior Director of Pharma Programs where he launched the Pharma Analytics business that in 2008 became a part of the Bioproduction platform at Life Technologies. Mr. Hunt received a B.S. in Microbiology and an M.S. in Biotechnology from University College in Galway, Ireland, and an M.B.A. from Boston University School of Management. Mr. Hunt brings to our Board of Directors his deep understanding of the bioprocessing market.

Jon K. Snodgres joined Repligen in July 2014 as our Chief Financial Officer, where he oversees financial operations for the Company. Mr. Snodgres was previously with Maquet Cardiovascular, a medical device company, where he served as CFO for five years. At Maquet, in addition to being responsible for the preparation and oversight of the company's financial statements, he was a key participant in growth planning and profit improvement strategies. Mr. Snodgres previously spent eight years with life sciences company Thermo Fisher Scientific in various roles, most recently as Vice President of Finance for the Laboratory Products Group. He began his career in finance at AlliedSignal/Honeywell International. Mr. Snodgres received a B.S. in Business Administration, Finance from Northern Arizona University.

Ralf Kuriyel joined Repligen in October 2016 as our Senior Vice President, Research and Development where he oversees the Company's research and development efforts. Mr. Kuriyel was previously Vice President of Applications for the single-use business unit within the Life Sciences division of Pall Corporation, whose acquisition by Danaher Corporation was completed in August 2015. At Pall, Mr. Kuriyel served as Vice President of R&D, Field Applications and Process Development Services from November 2014 to October 2016. In addition, Mr. Kuriyel served as Vice President, Applications R&D at Pall from November 2011 to November 2014. Mr. Kuriyel received a B.S. and M.S. in Chemical Engineering from Rensselaer Polytechnic Institute and has completed his coursework for the Tufts University Ph.D. program in Chemical Engineering. He is an inventor of multiple patents and has co-authored over 30 scientific publications on bioprocessing, including separations technologies, membrane separations methods, protein processing and enhanced microfiltration techniques.

Directors

Nicolas M. Barthelemy has served as a director of Repligen since June 2014. Mr. Barthelemy brings over 25 years of industry experience to the director role. Mr. Barthelemy served as President and CEO of bioTheranostics, a molecular diagnostics company, from September 2014 until February 2017. Prior to bioTheranostics, he served as President, Global Commercial Operations at Life Technologies, which was acquired by Thermo Fisher Scientific in February 2014. Prior to Life Technologies, Mr. Barthelemy was with Biogen for eight years, most recently as Vice President, Manufacturing and General Manager for the company's manufacturing organization at Research Triangle Park. He began his career with Merck & Co., Inc. as a Senior Project Engineer, Vaccine Technology. Mr. Barthelemy currently serves on the board of directors of Fluidigm, 908 Devices and Biocare Medical. Mr. Barthelemy received an M.S. in Chemical Engineering from the University of California, Berkeley, and an engineering degree from Ecole Supérieure de Physique et Chimie

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Industrielles, Paris. Mr. Barthelemy's qualifications to sit on the Company's Board of Directors include his extensive experience in the bioprocessing field, including large scale biologics manufacturing and commercialization of consumables used in bioprocessing.

Glenn L. Cooper, M.D. has served as a director of Repligen since August 2009. Dr. Cooper served as Executive Chairman of Coronado BioSciences, Inc. from 2010 to 2012. Prior to that, Dr. Cooper served as the Chairman and Chief Executive Officer of Indevus Pharmaceuticals, Inc., a specialty pharmaceutical company focused on urology and endocrinology, from 2000 to 2009 and as Chief Executive Officer and Director from 1993 to 2000. Prior to joining Indevus in 1993, Dr. Cooper held numerous executive level positions including President and Chief Executive Officer of Progenitor, Inc., Executive Vice President and Chief Operating Officer of Sphinx Pharmaceuticals Corporation, and various clinical and regulatory positions with Eli Lilly and Company. Dr. Cooper has participated in the development, approval and commercialization of numerous drugs including Prozac®, Axid®, Lorabid®, Ceclor®, SANCTURA®, SANCTURA XR®, Supprelin-LA® and Vantas®. Dr. Cooper received an M.D. from Tufts University School of Medicine, performed his postdoctoral training in Internal Medicine and Infectious Diseases at the New England Deaconess Hospital and the Massachusetts General Hospital and received a B.A. from Harvard College. Dr. Cooper also serves as the Chairperson of the board of directors of Lascaux Media, LLC, a privately-held company. Dr. Cooper's qualifications to sit on the Board of Directors of the Company include his leadership roles at pharmaceutical companies.

John G. Cox has served as a director of Repligen since November 2013. Mr. Cox was most recently the CEO of Bioverativ Inc., a company which spun out of Biogen, Inc. in 2017, was publicly-traded and was then acquired by Sanofi in February 2018. Previously, he was the Executive Vice President of Pharmaceutical Operations & Technology at Biogen Inc., a position he held since June 2010. Mr. Cox has also served as Senior Vice President of Technical Operations, Senior Vice President of Global Manufacturing, Vice President of Manufacturing & General Manager of Biogen's operations in Research Triangle Park, North Carolina, and Director of Manufacturing. Mr. Cox joined Biogen in 2003 as Director of Manufacturing Sciences. Before joining Biogen from 2000 to 2003, Mr. Cox held a number of senior operational roles at biotech contract manufacturer Covance/Diosynth where he worked in technology transfer, validation and purification. Prior to that, Mr. Cox focused on the same areas at Wyeth LLC from 1993 to 2000. He currently serves as Executive Chairman at Torque Therapeutics, a cellular immuno-oncology company. Mr. Cox holds an MBA from the University of Michigan, an M.S. in Cell Biology from California State University and a B.S. in Biology from Arizona State University. Mr. Cox's qualifications to sit on the Company's Board of Directors include his extensive experience in biopharmaceutical manufacturing and as a biopharmaceutical executive.

Karen A. Dawes, Chairperson of the Board, has served as a director of Repligen since September 2005. She is currently President of Knowledgeable Decisions, LLC, a management consulting firm. Ms. Dawes served from 1999 to 2003 as Senior Vice President and U.S. Business Group Head for Bayer Corporation's U.S. Pharmaceuticals Group. Prior to joining Bayer, she was Senior Vice President, Global Strategic Marketing, at Wyeth, a pharmaceutical company (formerly known as American Home Products), where she held responsibility for worldwide strategic marketing. Ms. Dawes also served as Vice President, Commercial Operations for Genetics Institute, Inc., which was acquired by Wyeth in January 1997, designing and implementing that company's initial commercialization strategy to launch BeneFIX® and Neumega®. Ms. Dawes began her pharmaceuticals industry career at Pfizer, Inc. where, from 1984 to 1994, she held a number of marketing positions, serving most recently as Vice President, Marketing of the Pratt Division. At Pfizer, she directed launches of Glucotrol®/Glucotrol XL®, Zolof®t, and Cardura®. Ms. Dawes also serves as a member on the board of directors of Asserpio Therapeutics, Inc. and Medicines360. Ms. Dawes received a B.A. and M.A. in English from Simmons College and an M.B.A. from Harvard University Graduate School of Business. Ms. Dawes' qualifications to sit on the Company's Board of Directors include her extensive strategic experience in both a managerial and consulting capacity with pharmaceutical companies as well as her considerable commercial background.

Glenn P. Muir has served as a director of Repligen since October 2015. Mr. Muir brings over 30 years of experience to the director role, including 26 years with Hologic, Inc., a large multi-national medical device and

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diagnostics company where he most recently served as Chief Financial Officer and Executive Vice President. Mr. Muir retired in May 2014 from Hologic, where he helped steer the company's evolution from a venture-backed single product company to a publicly traded diversified organization with over 5,000 employees and \$2.5 billion in revenue. He joined Hologic in 1988 and served as Chief Financial Officer since 1992 and Executive Vice President since 2000. Prior to Hologic, Mr. Muir was with Metallon Engineered Materials Co., a private company where from 1986-1988 he held the role of Vice President, Finance. Previously, from 1981-1984, he was a Senior Auditor with Arthur Andersen & Co. Mr. Muir serves on the board of directors of the medical technology company Neuronetics, Inc. and life science company G1 Therapeutics, Inc. Previously, Mr. Muir served on the board of directors of ReWalk Robotics Ltd. from July 2014 to December 2017. Mr. Muir is a Certified Public Accountant with a Bachelors of Business Administration from the University of Massachusetts, Amherst. He also earned an M.S from Bentley University and an M.B.A. from Harvard University. Mr. Muir's qualifications to sit on Repligen's Board of Directors include his extensive experience with integrating strategic acquisitions and leading the financial operations for a global manufacturing and commercial organization.

Thomas F. Ryan Jr. has served as a director of Repligen since September 2003. Mr. Ryan is currently an investor in various private companies. Mr. Ryan served as the President and Chief Operating Officer of the American Stock Exchange from October 1995 to April 1999. Prior to 1995, he held a variety of positions at the investment banking firm of Kidder, Peabody & Co., Inc., serving as the firm's Chairman in 1995. He holds a B.A. from Boston College and is a graduate of the Boston Latin School. Mr. Ryan is a director for the New York State Independent System Operator and a director for BNY Mellon Asset Management Mutual Funds Board. Mr. Ryan's qualifications to sit on the Company's Board of Directors include his years of experience in the areas of securities trading and investment banking.

CERTAIN RELATIONSHIPS AND RELATED PERSONS TRANSACTIONS

No family relationship exists among the officers and directors of Repligen. The Audit Committee conducts an appropriate review of all related party transactions for potential conflict of interest situations on an ongoing basis, and the approval of the Audit Committee is required for all such transactions. The term “related party transactions” shall refer to transactions required to be disclosed by the Company pursuant to Item 404 of Regulation S-K promulgated by the SEC.

CORPORATE GOVERNANCE AND BOARD MATTERS

Independence of Members of the Board of Directors

The Board of Directors has determined that each of the directors who has served during the fiscal year ended December 31, 2018 and each of the nominees for director at the Annual Meeting, with the exception of Mr. Hunt, has no material relationship with the Company and is independent within the meaning of the director independence standards of The Nasdaq Stock Market LLC (the “Nasdaq”). Furthermore, the Board of Directors has determined that each member of the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee of the Board of Directors is independent within the meaning of Nasdaq’s director independence standards and that each member of the Audit Committee meets the heightened director independence standards of the SEC for audit committee members.

Board Leadership Structure

The Board is led by its Chairperson, Karen Dawes, who is an independent director. The Board of Directors believes that separating the roles of Chief Executive Officer and Chairperson of the Board is the most appropriate structure for the Company at this time. Having an independent Chairperson ensures that the Chief Executive Officer is accountable for managing the Company in the best interests of stockholders while, at the same time, acknowledging that managing the Board of Directors is a separate and time intensive responsibility. Additionally, this structure ensures a greater role for the non-management directors in the oversight of the Company and active participation of the independent directors in setting agendas and establishing priorities and procedures for the work of the Board of Directors. The Board of Directors also believes that having an independent Chairperson can serve to curb conflicts of interests, promote oversight of risk and manage the relationship between the Board of Directors and the Chief Executive Officer.

Executive Sessions

The Board of Directors holds executive sessions of the independent directors at least two times per year preceding or following regularly scheduled in-person meetings of the Board of Directors. Executive sessions do not include any employee directors of the Company, and the Chairperson of the Board is responsible for chairing the executive sessions.

Policies Governing Director Nominations

Director Qualifications

The Nominating and Corporate Governance Committee is responsible for reviewing, from time to time, the appropriate qualities, skills and characteristics desired of Board members in the context of the current make-up of the Board of Directors and selecting or recommending nominees for election as Directors to the Board. This assessment includes consideration of the following minimum qualifications that the Nominating and Corporate Governance Committee believes must be met by all directors:

- Directors must be of high ethical character, have no conflict of interest and share the values of the Company as reflected in the Company’s Code of Business Conduct and Ethics;
- Directors must have reputations, both personal and professional, consistent with the image and reputation of the Company;
- Directors must have the ability to exercise sound business judgment;
- Directors must have substantial business or professional experience and be able to offer advice and guidance to the Company’s management based on that experience; and
- A director must have (at a minimum) a bachelor’s degree or equivalent degree from an accredited college or university.

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The Nominating and Corporate Governance Committee also considers numerous other qualities, skills and characteristics when evaluating director nominees, such as:

- An understanding of and experience in biotechnology and pharmaceutical industries;
- An understanding of and experience in accounting oversight and governance, finance and marketing; and
- Leadership experience with public companies or other significant organizations.

These factors and others are considered useful by the Board and are reviewed in the context of an assessment of the perceived needs of the Board at a particular point in time.

Neither the Nominating and Corporate Governance Committee nor the Board of Directors has a specific policy with regard to the consideration of diversity in identifying director nominees although they may consider the diversity of background and experience of a director nominee in the context of the overall composition of the Board of Directors at that time. This consideration may focus on diversity of knowledge, skills, experience, geographic location, age, gender, and ethnicity. Generally, the Nominating and Corporate Governance Committee seeks director nominees with the talents and backgrounds that provide the Board of Directors with an appropriate mix of experience, knowledge and skills that will best serve the Company's needs and objectives.

Process for Identifying and Evaluating Director Nominees

The Board of Directors is responsible for selecting and nominating nominees for election as directors but delegates the selection and nomination process to the Nominating and Corporate Governance Committee, with the expectation that other members of the Board of Directors or members of management will be requested to take part in the process as appropriate.

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

Procedures for Recommendation of Nominees by Stockholders

The Nominating and Corporate Governance Committee will consider director candidates who are recommended by the stockholders of the Company. Stockholders must deliver any such recommendation not later than the close of business on the 60th day, nor earlier than the close of business on the 90th day, prior to the first anniversary of the preceding year's annual meeting. Stockholders, in submitting recommendations to the Nominating and Corporate Governance Committee for director candidates, shall follow the following procedures:

Such recommendation for nomination should be in writing and include the following:

- Name and address of the stockholder making the recommendation, as they appear on the Company's books and records, and of such record holder's beneficial owner;

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- Number of shares of capital stock of the Company that are owned beneficially and held of record by such stockholder and such beneficial owner;
- Number and description of all synthetic equity interests that are held by such stockholder, and whether such synthetic equity interests convey voting rights;
- Name and address of the individual recommended for consideration as a director nominee, or a director nominee;
- The principal occupation of the director nominee;
- The total number of shares of capital stock of the Company that will be voted for the director nominee by the stockholder making the recommendation;
- All other information relating to the director nominee that would be required to be disclosed in solicitations of proxies for the election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Exchange Act (including the recommended candidate's written consent to being named in the proxy statement as a nominee and to serving as a director if approved by the Board of Directors and elected);
- A written statement from the stockholder making the recommendation stating why such recommended candidate would be able to fulfill the duties of a director;
- Any proxy, agreement, arrangement, understanding or relationship pursuant to which the stockholder making the recommendation has or shares a right to, directly or indirectly, vote any shares of any class or series of capital stock of the Company;
- Any rights to dividends or other distributions on the shares of any class or series of capital stock of the Company, directly or indirectly, owned beneficially by such recommending stockholder that are separated or separable from the underlying shares of the Company; and
- Any performance-related fees that such recommending stockholder, directly or indirectly, is entitled to based on any increase or decrease in the value of shares of any class or series of capital stock of the Company or any synthetic equity interest.

Nominations must be sent to the attention of the Secretary of the Company by one of the two methods listed below:

- By U.S. Mail (including courier or expedited delivery service):

Repligen Corporation
Attn: Secretary
41 Seyon Street
Building #1, Suite 100
Waltham, MA 02453

- By facsimile at (781) 250-0115:
Attn: Secretary

The Secretary of the Company will promptly forward any such nominations to the Nominating and Corporate Governance Committee. Once the Nominating and Corporate Governance Committee receives the nomination of a candidate, the candidate will be evaluated and a recommendation with respect to such candidate will be delivered to the Board of Directors. Nominations not made in accordance with the foregoing policy shall be disregarded by the Nominating and Corporate Governance Committee and votes cast for such nominees shall not be counted.

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Policy Governing Stockholder Communications with the Board of Directors

The Board of Directors provides to every stockholder the ability to communicate with the Board of Directors, as a whole, and with individual directors on the Board through an established process for stockholder communication (as that term is defined by the rules of the SEC) as follows:

For communications directed to the Board of Directors as a whole, stockholders may send such communication to the attention of the Chairperson of the Board via one of the two methods listed below:

- By U.S. Mail (including courier or expedited delivery service):

Repligen Corporation
Attn: Chairperson of the Board of Directors
41 Seyon Street
Building #1, Suite 100
Waltham, MA 02453

- By facsimile at (781) 250-0115:
Attn: Chairperson of the Board of Directors

For stockholder communications directed to an individual director in his or her capacity as a member of the Board of Directors, stockholders may send such communications to the attention of the individual director via one of the two methods listed below:

- By U.S. Mail (including courier or expedited delivery service):

Repligen Corporation
Attn: [Name of Individual Director]
41 Seyon Street
Building #1, Suite 100
Waltham, MA 02453

- By facsimile at (781) 250-0115:
Attn: [Name of Individual Director]

The Company will forward any such stockholder communication to the Chairperson of the Board, as a representative of the Board of Directors, and/or to the director to whom the communication is addressed on a periodic basis. The Company will forward such communication by certified U.S. Mail to an address specified by each director of the Board of Directors for such purposes or by secure electronic transmission.

Policy Governing Director Attendance at Annual Meetings of Stockholders

The Board's policy is that all directors and director nominees are encouraged to attend the Company's Annual Meeting in person if their schedule permits. All members of the Board of Directors attended the 2018 Annual Meeting.

Stock Ownership and Insider Trading Policies

The Board of Directors has adopted a share ownership policy relating to ownership of the Company's securities by the Company's Chief Executive Officer and the directors. Subject to the terms of the policy, the Chief Executive Officer is required to acquire over a four-year period and hold shares of Common Stock of the Company equal to one times his or her base salary as of a specified measuring date, and each of the Company's non-employee directors is required to acquire over a four-year period and hold shares of Common Stock of the Company equal to three times the Company's annual cash retainer paid to each such non-employee director. Restricted stock and restricted stock units are included once the vesting conditions have been satisfied, but stock options (regardless of whether they are vested or unvested) are not included in the total number of shares owned by the Chief Executive Officer or the directors for purposes of the share ownership policy.

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Under the Company's insider trading policy, our employees, including our executive officers and directors are not permitted to engage in the following transactions with respect to our stock: selling any of the Company's securities that are not owned by such insider at the time of sale ("short selling") and holding our stock in an account that is, or is linked to, a margin account. In addition the following transactions are not permitted without preapproval of the Company's Audit Committee: buying or selling puts, calls or other derivatives of our securities or any derivative securities that provide the economic equivalent of ownership of any of the Company's securities; engaging in any hedging transaction with respect to the Company's securities; or pledging Company securities as collateral for a loan. Gifts (transfer of our stock without consideration) are subject the same restrictions as all other trades, and are prohibited during a period when the insider is not permitted to trade.

Code of Business Conduct and Ethics

Repligen has adopted a Code of Business Conduct and Ethics as its "code of ethics" as defined by regulations promulgated under the Securities Act of 1933, as amended, or the Securities Act, and the Exchange Act (and in accordance with the Nasdaq requirements for a "code of conduct"), which applies to all of the Company's directors, officers and employees, including its principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A current copy of the Code of Business Conduct and Ethics is available at the "Investors" — "Corporate Governance" — "Policies and Charters" section of the Company's website at <http://www.repligen.com>. A copy of the Code of Business Conduct and Ethics may also be obtained free of charge from the Company upon a request directed to Repligen Corporation, Attention: Investor Relations, 41 Seyon Street, Building #1, Suite 100, Waltham, MA 02453. The Company will promptly disclose any substantive changes in or waivers, along with reasons for the waivers, of the Code of Business Conduct and Ethics granted to its executive officers, including its principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and its directors by posting such information on its website at <http://www.repligen.com> under "Investors" — "Corporate Governance."

Risk Oversight

The Company's management is responsible for assessing and managing risk and the Board of Directors oversees and reviews certain aspects of the Company's risk management efforts. The Board of Directors is involved in risk oversight through direct decision-making authority with respect to significant matters and the oversight of management by the Board of Directors and its committees. The Board of Directors is responsible for overseeing risks related to the Company's overall strategy, including, among others, product development, potential asset acquisitions, financial reporting, business continuity (including succession planning) and reputational risks faced by the Company.

The committees of the Board of Directors execute their oversight responsibility for risk management as follows:

- The Audit Committee is responsible for overseeing the Company's internal financial and accounting controls, work performed by the Company's independent registered public accounting firm and the Company's independent reviewer of internal controls. As part of its oversight function, the Audit Committee regularly discusses with management and the Company's independent registered public accounting firm the Company's major financial and controls-related risk exposures and steps that management has taken to monitor and control such exposures.
- The Compensation Committee is responsible for overseeing risks related to the Company's cash and equity-based compensation programs and practices. As part of its oversight function, the Compensation Committee periodically discusses with the President and Chief Executive Officer as well as the Board of Directors, as necessary, the compensation plan for both executive officers and the non-employee directors, performance goals and objectives for the period and related achievement, peer group and other relevant compensation benchmarks and practices and other matters to ensure the Company's compensation practices are in the best interest of the Company and its stockholders.

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- The Nominating and Corporate Governance Committee is responsible for overseeing risks related to the composition and structure of the Board of Directors and its committees and the Company's corporate governance. In this regard, the Nominating and Corporate Governance Committee assesses the qualifications and independence of members of the Board of Directors and makes annual recommendations regarding Board of Directors and committee membership.

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BOARD MEETINGS AND COMMITTEES

The Board of Directors of the Company met nine times during the fiscal year ended December 31, 2018. During the fiscal year ended December 31, 2018, no director attended fewer than 75% of the aggregate of each of: (i) the total number of meetings of the Board of Directors; and (ii) the total number of meetings held by all committees of the Board of Directors on which such director served. The Board of Directors has a standing Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee. Each standing committee has a charter that has been approved by the Board of Directors. Each standing committee reviews the appropriateness of its charter periodically, as conditions dictate, but at least annually.

Audit Committee

The Audit Committee was established in accordance with section 3(a)(58)(A) of the Exchange Act and currently consists of Messrs. Muir, Cox and Ryan. The Audit Committee is responsible for overseeing the accounting and financial reporting processes of the Company and the audits of the financial statements of the Company and exercising the responsibilities and duties set forth below, including but not limited to: (a) appointing, compensating and retaining the Company's independent registered public accounting firm, (b) overseeing the work performed by any independent registered public accounting firm, including conduct of the annual audit and engagement for any other services, (c) assisting the Board of Directors in fulfilling its responsibilities by reviewing: (i) the financial reports provided by the Company to the SEC, the Company's stockholders or to the general public, and (ii) the Company's internal financial and accounting controls, (d) recommending, establishing and monitoring procedures designed to improve the quality and reliability of the disclosure of the Company's financial condition and results of operations, (e) establishing procedures designed to facilitate (i) the receipt, retention and treatment of complaints relating to accounting, internal accounting controls or auditing matters and (ii) the receipt of confidential, anonymous submissions by employees of concerns regarding questionable accounting or auditing matters, (f) engaging advisors as necessary, and (g) serving as the Qualified Legal Compliance Committee in accordance with Section 307 of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated by the SEC thereunder. The Audit Committee met four times during the fiscal year ended December 31, 2018. Mr. Muir currently serves as Chairperson of the Audit Committee. The Board has determined that Mr. Muir qualifies as an "audit committee financial expert" under the rules of the SEC. The Board has determined that each member of the Audit Committee is independent within the meaning of the Nasdaq's director independence standards and the SEC's heightened director independence standards for audit committee members as determined under the Exchange Act.

The Audit Committee operates under a written charter adopted by the Board, a current copy of which is available on the Company's website at <http://www.repligen.com> under "Investors" — "Corporate Governance" — "Policies and Charters."

Audit Committee Report

This report is furnished by the Company's Audit Committee with respect to the Company's financial statements for fiscal year 2018. The Company's management is responsible for the preparation and presentation of complete and accurate financial statements. The independent registered public accounting firm Ernst & Young LLP is responsible for performing an independent audit of the Company's financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and for issuing a report on its audit. The Audit Committee oversees and monitors the Company's management and its independent registered public accounting firm throughout the financial reporting process.

The material in this report is not "soliciting material," is not deemed filed with the SEC, and is not to be incorporated by reference in any filing of the Company under the Securities Act or under the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

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The Audit Committee currently consists of Mr. Muir, Chairperson, Mr. Cox and Mr. Ryan. The Audit Committee has the responsibility and authority described in the Repligen Audit Committee Charter, which has been approved by the Board. The Board of Directors has determined that the members of the Audit Committee meet the independence requirements set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended, and the applicable rules of the National Association of Securities Dealers, Inc. and that Mr. Muir qualifies as an “audit committee financial expert” under the rules of the SEC. The Audit Committee oversees the accounting and financial reporting processes of the Company and the audits of the financial statements of the Company. Management has the primary responsibility for the financial statements and the reporting process, including the systems of internal controls.

In fulfilling its oversight responsibilities, the Audit Committee reviewed and discussed with management of the Company and Ernst & Young LLP the audited financial statements included in the Company’s Annual Report on Form 10-K (“Form 10-K”) for the fiscal year ended December 31, 2018, including a discussion of the quality, not just the acceptability, of the accounting principles, the reasonableness of significant judgments and the clarity of disclosures in the financial statements. The Audit Committee also reviewed the Company’s quarterly financial statements for the first three fiscal quarters during the fiscal year ended December 31, 2018 and discussed them with both the management of the Company and Ernst & Young LLP prior to including such interim financial statements in the Company’s Quarterly Reports on Form 10-Q (“Form 10-Q”). In connection with the Company’s Form 10-K for the fiscal year ended December 31, 2018 and the Form 10-Q for each of its first, second and third fiscal quarters of the fiscal year ended December 31, 2018, the Audit Committee discussed the results of the Company’s certification process relating to the statements in the Company’s Form 10-Qs. In connection with the Company’s Form 10-K for the fiscal year ended December 31, 2018 and the Form 10-Q for each of its first, second and third fiscal quarters of the fiscal year ended December 31, 2018, the Audit Committee discussed the results of the Company’s certification process relating to the certification of financial statements under Sections 302 and 906 of the Sarbanes-Oxley Act. In addition, the Audit Committee has received from Ernst & Young LLP the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding Ernst & Young LLP’s communications with the Audit Committee concerning independence, has discussed with Ernst & Young LLP their independence from management and the Company, and has considered the compatibility with Ernst & Young LLP’s independence as auditors of the non-audit services performed for the Company by Ernst & Young LLP.

The Audit Committee also reviewed management’s report on its assessment of the effectiveness of the Company’s internal control over financial reporting and Ernst & Young LLP’s report on the effectiveness of the Company’s internal control over financial reporting.

The Audit Committee discussed with Ernst & Young LLP the overall scope and plans for their audit. The Audit Committee met with Ernst & Young LLP to discuss the results of their examinations, their evaluations of the Company’s internal controls, including internal control over financial reporting, and the overall quality of the Company’s financial reporting.

The Audit Committee has also evaluated the performance of Ernst & Young LLP, including, among other things, the amount of fees paid to Ernst & Young LLP for audit and non-audit services. Based on its evaluation, the Audit Committee has selected Ernst & Young LLP (subject to stockholder ratification) to serve as the Company’s auditors for the fiscal year ending December 31, 2019.

The Audit Committee met four times during the fiscal year ended December 31, 2018. In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board of Directors that the Company’s audited financial statements and management’s assessment of the effectiveness of the Company’s internal control over financial reporting be included in the Form 10-K for the fiscal year ended December 31, 2018 filed with the SEC, and the Board of Directors approved such inclusion.

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Respectfully submitted by the Audit Committee,

Glenn P. Muir, Chairperson
John G. Cox
Thomas F. Ryan, Jr.

Compensation Committee

The Compensation Committee, of which Dr. Cooper, Mr. Barthelemy and Mr. Muir are currently members, is responsible (among other duties and responsibilities) for (a) discharging the Board of Directors' responsibilities relating to the compensation of the Company's executive officers, (b) administering the Company's cash incentive compensation and equity incentive plans, (c) reviewing and discussing with management the Compensation Discussion and Analysis for inclusion in the Company's proxy statement in accordance with applicable rules and regulations, (d) reviewing and making recommendations to management on company-wide compensation programs and practices, (e) taking final action with respect to the individual salary, bonus and equity arrangements of the Company's Chief Executive Officer and other executive officers, and (g) recommending, subject to approval by the full Board of Directors, new equity-based plans and any material amendments thereto (including increases in the number of shares of Common Stock available for issuance thereunder) for which stockholder approval is required or desirable. The Compensation Committee met five times during the fiscal year ended December 31, 2018. Dr. Cooper serves as the Chairperson of the Compensation Committee. The Board has determined that each member of the Compensation Committee is independent within the meaning of the SEC and Nasdaq's director independence standards.

The Compensation Committee operates under a written charter adopted by the Board of Directors, which is available on the Company's website at <http://www.repligen.com> under "Investors" — "Corporate Governance" — "Policies and Charters."

Compensation Committee Report

The Compensation Committee of the Board of Directors, which is comprised solely of independent directors within the meaning of applicable rules of Nasdaq, outside directors within the meaning of Section 162(m) of the Internal Revenue Code of 1986, or the Code, and non-employee directors within the meaning of Rule 16b-3 under the Securities Exchange Act of 1934, is responsible for developing executive compensation policies and advising the Board of Directors with respect to such policies and administering the Company's cash and equity incentive plans. The Compensation Committee sets performance goals and objectives for the Chief Executive Officer and the other executive officers, evaluates their performance with respect to those goals and sets their compensation based upon the evaluation of their performance. In evaluating executive officer pay, the Compensation Committee may retain the services of a compensation consultant and consider recommendations from the Chief Executive Officer with respect to goals and compensation of the other executive officers. The Compensation Committee assesses the information it receives in accordance with its business judgment. The Compensation Committee also periodically reviews non-employee director compensation. All decisions with respect to executive compensation are approved by the Compensation Committee and all decisions with respect to director compensation are recommended by the Compensation Committee to the full Board of Directors for approval.

The Compensation Committee of the Company has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and, based on such review and discussions, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement.

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Respectfully submitted by the Compensation Committee:

Glenn L. Cooper, Chairperson
Nicolas M. Barthelemy
Glenn P. Muir

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee of the Board of Directors consists of Ms. Dawes, Chairperson, Mr. Barthelemy and Mr. Ryan. The Nominating and Corporate Governance Committee met once during the fiscal year ended December 31, 2018.

The Nominating and Corporate Governance Committee is responsible for: (a) identifying individuals qualified to become members of the Board of Directors, and selecting or recommending that the Board of Directors select the director nominees for election, (b) reviewing the Code of Business Conduct and Ethics and, (c) monitoring compliance with and periodically reviewing the Code of Business Conduct and Ethics. The Nominating and Corporate Governance Committee may consider nominees for election as directors recommended by stockholders as described above.

Ms. Dawes serves as the Chairperson of the Nominating and Corporate Governance Committee. The Board of Directors has determined that each member of the Nominating and Corporate Governance Committee is independent within the meaning of the SEC's and Nasdaq's director independence standards.

The Nominating and Corporate Governance Committee operates under a written charter adopted by the Board, which is available on the Company's website at <http://www.repligen.com> under "Investors" — "Corporate Governance" — "Policies and Charters."

COMPENSATION DISCUSSION AND ANALYSIS

Year in Review

We view our annual achievements in the context of our long-term goals, including our goal to become a technology and market leader in bioprocessing.

For the fiscal year ended December 31, 2018, we made strong progress toward our long-term goals through a combination of organic growth, new product development and success of recent acquisitions. We are keenly focused on achieving our corporate goals, in alignment with our broader purpose to return long-term value to our customers and stockholders.

Among our accomplishments in the fiscal year ended December 31, 2018 were the following:

- Our revenue increased to \$194.0 million, a gain of 37% over the prior year. Organic sales growth of 17% was driven by strength in demand for our Filtration and Chromatography products, particularly from increased market adoption of our XCell™ ATF filtration systems and consumables, our flat sheet and hollow fiber filtration products and our OPUS® line of pre-packed chromatography columns.
- We generated first full-year revenue of approximately \$50.8 million from Spectrum Life Sciences LLC (“Spectrum”) in 2018, following our August 2017 acquisition of the company. This represented 24% growth *pro forma*, which is above Spectrum’s 16% historical average annual growth rate prior to the August 2017 acquisition.
- We set a 2018 goal of \$3.4 million in Spectrum revenue synergies and achieved over \$4 million of revenue synergies for the year. These synergies were achieved through cross-selling (where our flat sheet cassette business benefitted the most), new product introductions, and regional sales gains including in Asia.
- We established strategic collaborations in 2018 to provide long-term support to our Proteins business and strengthen our leadership position in perfusion technology:
 - Through our partnership with Navigo GmbH (“Navigo”) to develop a Repligen-owned portfolio of affinity ligands, we introduced our next-generation Protein A ligand, NGL Impact™-A, and signed an agreement with Purolite Life Sciences (“Purolite”) to supply this ligand for use in Purolite’s Praesto Jetted A 50 resin.
 - We partnered with Sartorius Stedim Biotech (“Sartorius”) to integrate our next-generation XCell™ ATF controller technology into their single-use BIOSTAT® STR bioreactor product line.
- We made disciplined increases in our research and development investments and launched two new commercial products during 2018. We introduced OPUS® 80 R, the industry’s largest pre-packed chromatography column, and KONDUiT add-on modules that work with our TFF filtration systems to automate process controls.
- We implemented lean-based manufacturing across our East and West Coast U.S. facilities to optimize operations and improve overall output.
- We continued to scale our organization and restructured our customer-facing team from a product-centric structure to a market-focused team. We also began to build a systems team to support our Filtration business with integrated solutions and single-use flow path assemblies.
- We invested in capacity to meet the growing demand for our products, expanding our manufacturing footprint with a new 64,000 square foot facility in Marlborough, Massachusetts that will operate as our customer-facing Filtration Center of Excellence.

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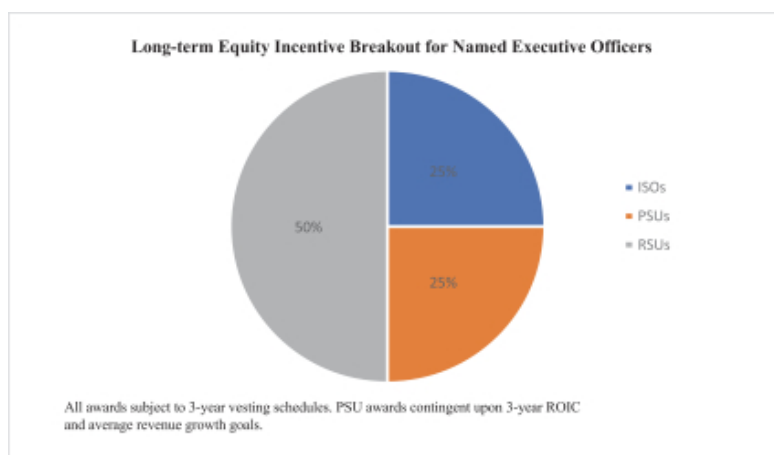
2019 Compensation Highlights

In accordance with our compensation philosophy, and through ongoing consideration of best practices with respect to executive compensation, in February 2019 the Compensation Committee approved the following:

- The grant of performance-based restricted stock units to all our executive officers (in addition to our time-based stock option and restricted stock unit awards) to increase our emphasis on long-term equity incentive and pay-for-performance. The performance-based awards are earned and vest only if we achieve certain pre-determined performance metrics (see “Equity Incentive Compensation”, page 35); and
- A clawback policy providing for recoupment of cash and equity incentive compensation from our executive officers in the event of an accounting restatement or material non-compliance with financial reporting requirements (see “Clawback Policy”, page 36).

We believe that adding performance-based equity awards to our annual long-term incentive compensation mix adds balance to our long-term incentives, provides additional motivation for our executives to drive organizational achievement of our near- and long-term corporate goals and further aligns the interests of our executive officers with those of the stockholders.

As shown in the graph below, with the addition of performance-based stock units, our long-term executive compensation awards for 2019 are split, based upon dollar value, between performance-based restricted stock units (25%), stock options subject to time-based vesting (25%) and restricted stock units subject to time-based vesting (50%). We anticipate that we will continue to include performance-based equity awards as part of our long-term incentive compensation program going forward for the reasons noted above.



Compensation Philosophy

The Company’s compensation philosophy is to provide compensation that will attract and maintain high-performing talent in our industry, motivate the Company’s executive officers to create long-term value and enhance stockholder value, provide a fair reward for their effort and stimulate our executive officers’ professional and personal growth. The Company believes that the compensation of its executive officers should align the executive officers’ interests with those of the stockholders and focus executive officer behavior not only on the achievement of near-term corporate goals, but also on the achievement of long-term business objectives and strategies.

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It is the responsibility of the Compensation Committee of the Board to administer the Company's compensation programs to ensure that they are competitive with other bioprocessing, healthcare supply and biotechnology companies and to include incentives that are designed to appropriately drive the Company's continued development. The Compensation Committee reviews and approves all components of the Company's executive officer compensation, including base salaries, annual cash incentive compensation, and equity incentive compensation.

Objectives of the Compensation Programs

The Company's compensation programs for its executive officers are designed to provide the following:

- annual cash incentive compensation that motivates the executive officers to manage the business to meet the Company's short- and long-term objectives;
- equity incentive compensation, including performance-based equity awards to ensure that its executive officers are motivated over the long-term to respond to the Company's business challenges and opportunities as owners and not just as employees, thereby aligning the executive officers' interests with those of stockholders; and
- compensation that is competitive with our bioprocessing, healthcare supply and biotechnology companies with which the Company competes for talent, determined by comparing the Company's pay practices with these companies.

compensation that is competitive with other bioprocessing, healthcare supply and biotechnology companies with which the Company competes for talent, determined by comparing the Company's pay practices with these companies.

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The following features of our compensation program are designed to align the interests of our executive team with those of our stockholder interest and with market best practice:

We Do	We Don't
<input checked="" type="checkbox"/> We emphasize performance-based compensation that aligns the interests of our stockholders and executive officers through the use of both short-term cash incentive compensation and equity awards subject to both time and performance-based vesting.	<input checked="" type="checkbox"/> We don't allow hedging or pledging of our securities without pre-approval
<input checked="" type="checkbox"/> We maintain an industry-specific peer group for benchmarking pay.	<input checked="" type="checkbox"/> We do not allow for re-pricing of stock options.
<input checked="" type="checkbox"/> We target pay based on market norms.	<input checked="" type="checkbox"/> We do not provide excessive perquisites.
<input checked="" type="checkbox"/> We offer market-competitive benefits for executives that are consistent with the benefits we offer all of our employees.	<input checked="" type="checkbox"/> We do not provide supplemental executive retirement plans.
<input checked="" type="checkbox"/> We consistently engage an independent compensation consultant to advise on compensation levels and practices.	<input checked="" type="checkbox"/> We do not provide tax gross-up payments.
<input checked="" type="checkbox"/> We maintain stock ownership guidelines that require our directors, including the Chief Executive Officer, to maintained specified level of ownership.	<input checked="" type="checkbox"/> We do not provide guaranteed bonuses to our executive officers.
<input checked="" type="checkbox"/> We have a clawback policy covering cash and equity incentive compensation paid to our Chief Executive Officer and other executive officers.	

Compensation Evaluation Processes

The Company's executive officer compensation consists of three primary components: base salary, annual cash incentive compensation and equity incentive compensation. Each of these components is intended to complement the others, and taken together, to satisfy the Company's compensation objectives. The Compensation Committee considers a number of factors in setting compensation for its executive officers, including Company performance, the executive's functional performance, experience and responsibilities, and the compensation of executive officers in similar positions in our peer group of companies.

In evaluating our executive compensation programs for the fiscal year ended December 31, 2018, the Compensation Committee considered the stockholder advisory vote on our executive compensation, or the say-on-pay vote, for the fiscal year ended December 31, 2017, which was approved by almost 97% of the votes cast. The Compensation Committee believes that the stockholders, through this advisory vote, endorsed the compensation philosophies of our Company and, thus, the Compensation Committee maintained the basic structure and design of our executive compensation programs for fiscal year 2018 with an increased emphasis on awards of equity incentives, including equity awards subject to performance-based vesting criteria, to further align the executive officers' financial interest with long-term stockholder value. The Compensation Committee intends to continue to focus on aligning executive compensation programs with the interests of our stockholders

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and current market practice, including a continued emphasis on pay for performance. We currently hold a say-on-pay vote on an annual basis, and our Board of Directors intends to continue to do so until at least our next stockholder advisory vote on the frequency of say-on-pay votes to approve our executive compensation, which will occur no later than our 2023 annual meeting of stockholders.

In establishing compensation levels for each executive officer, the Compensation Committee has the authority to engage the services of outside experts. In the fiscal year ended December 31, 2018, the Compensation Committee retained Meridian Compensation Partners, LLC, (“Meridian”), an independent compensation consulting firm, to assist the Compensation Committee in assessing the competitiveness and effectiveness of the Company’s executive compensation programs. In addition, our finance and human resources departments support the Compensation Committee in its work and act in accordance with the direction given to them to administer our compensation programs.

The Compensation Committee has assessed any potential conflicts of interest raised by the work of Meridian, our compensation consultant, pursuant to SEC rules and has determined that no such conflict of interest exists.

During the fiscal year ended December 31, 2018 and in January and February 2019, the Compensation Committee held meetings with management and representatives of Meridian to:

- review our compensation objectives;
- review the actual compensation of our executive officers for consistency with our objectives;
- analyze trends in executive compensation;
- assess our variable cash compensation structure, as well as incentive plan components and mechanics, to ensure an appropriate correlation between pay and performance with resulting compensation opportunities that balance returns to the Company and its stockholders;
- assess our equity-based awards programs against our objectives of executive incentive, retention and alignment with stockholder interests;
- review our peer group and consider appropriate changes related to the realignment of our business;
- benchmark our executive cash compensation and equity-based awards programs, and assess our pay versus performance against our peer group; and
- review recommendations for fiscal year 2019 compensation for appropriateness relative to our compensation objectives.

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In January 2018, Meridian provided the Compensation Committee with a final analysis of base salary, target bonus, target total cash, long-term incentives value and design and target total compensation for executives, and cash and equity compensation for non-employee directors, of comparable companies in the biotechnology and health care supplies industries. In performing this analysis, Meridian used a peer group of 17 biotechnology and health care supply companies, which was reviewed and approved by our Compensation Committee. Each year, Meridian, in conjunction with our Compensation Committee, reevaluates our peer group in light of developments in the market and our industry. As a result of this review, one company was added to the peer group and one company was removed from the peer group compared to the prior year. The companies included in the peer group had revenues with a median of \$228.0 million, as compared to the Company's total revenue of \$141.2 million in fiscal year 2017. The peer group used in the report presented for consideration of 2018 compensation decisions and approved by the Compensation Committee consisted of the following companies:

Abaxis, Inc.	Cambrex Corp.	Merrimack Pharmaceuticals, Inc.
Albany Molecular Research Inc.	Fluidigm Corp.	Mesa Laboratories, Inc.
AMAG Pharmaceuticals Inc.	Halozyme Therapeutics Inc.	Neogen Corp.
Anika Therapeutics Inc.	Harvard Bioscience, Inc.	Neogenomics, Inc.
Bio-Techne Corp.	Luminex Corp.	Pacific Biosciences of California, Inc.
Brooks Automation Inc.	Meridian Biosciences, Inc.	

The Compensation Committee uses the peer group compensation data as one of several factors in determining appropriate compensation parameters for base salary, variable cash compensation and equity-based, long-term incentives. The Compensation Committee's executive compensation decisions are made on a case-by-case basis, and specific benchmark results do not, in and of themselves, determine individual target compensation decisions.

As summarized below, Meridian's review of peer companies revealed that the Company's base salaries for its named executive officers were near the 50th percentile of peer group companies, target bonus percentages were near the 50th percentile of peer group companies, and long-term incentives were both above and below the 50th percentile of peer group companies, depending on the named executive officer's position, for the fiscal year ended December 31, 2018.

Base Salary as Compared to 50th Percentile of Peer Group

<u>Name</u>	<u>Base Salary for the Fiscal Year Ended December 31, 2018</u>	<u>50th Percentile Base Salary for Position in Peer Group</u>	<u>Percent Actual Salary is Above (Below) 50th Percentile in Peer Group</u>
Tony J. Hunt	\$ 600,000	\$ 600,000	0.0%
Jon K. Snodgres	\$ 360,500	\$ 346,942	3.9%
Ralf Kuriyel	\$ 320,000	\$ 344,850	(7.2%)

Target Bonus Percentage as Compared to 50th Percentile of Peer Group

<u>Name</u>	<u>Target Bonus Percentage for the Fiscal Year Ended December 31, 2018</u>	<u>50th Percentile Target Bonus for Position in Peer Group</u>
Tony J. Hunt	80%	75%
Jon K. Snodgres	50%	45%
Ralf Kuriyel	50%	44%

Long-Term Incentives as Compared to Peer Group

Since 2013, the Compensation Committee has made annual grants of stock options and/or restricted stock units subject to time-based vesting to align the executive officers' financial interest with those of stockholders.

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Based on Meridian's review of our peer group, the majority of companies in the peer group made long-term incentive awards to executive officers on an annual basis. The Compensation Committee believes that equity incentives, in the form of stock options, restricted stock units and restricted stock awards, subject to vesting over time or upon achievement of performance objectives, can be an effective vehicle for the long-term element of compensation, as these awards align individual and team performance with the achievement of the Company's strategic and financial goals over time, and with stockholders' interests. Stock options, which have exercise prices equal to at least the fair market value of the Company's stock on the date of grant, reward executive officers only if the stock price increases from the date of grant. Restricted stock units and restricted stock awards are impacted by all stock price changes, so the value to the executive officers is affected by both increases and decreases in stock price. In March 2018, the Compensation Committee, based on Meridian's review of peer group data, granted stock options and restricted stock units subject to time-based vesting over three years to its named executive officers. The size of these grants is based on target long-term incentive levels for each of the named executive officers. The Compensation Committee expects to annually grant additional long-term incentive awards, potentially including a mix of restricted stock units, restricted stock awards, stock option awards and performance-based restricted stock units in future years.

The Compensation Committee anticipates that it will continue to conduct similar annual reviews of our executive compensation practices and use independent outside consultants for similar services in the future.

Executive Compensation

Each executive officer (except our Chief Executive Officer, whose performance is reviewed directly by the Board Chair and Compensation Committee) has an annual performance review with our Chief Executive Officer, who makes recommendations on salary increases, promotions and equity and non-equity incentive awards to the Compensation Committee. The Compensation Committee believes its executive compensation programs for the fiscal year ended December 31, 2018, appropriately rewarded the executives based on the Company's accomplishments during the year, including the strong growth in product revenue, improvement in gross and operating profit, improvement of production efficiencies, development of new product offerings and the continued integration of prior acquisitions.

Base Salary

Base salary represents the fixed portion of an executive officer's compensation and is intended to provide compensation for day-to-day performance. The Compensation Committee believes that a competitive base salary is a necessary element of any compensation program that is designed to attract and retain talented and experienced executives. Each executive officer's base salary is initially determined upon hire or promotion based on the executive officer's responsibilities, prior experience, individual compensation history and salary levels of other executives within the Company and similarly situated executives within our peer group. Base salary is typically reviewed annually. The Compensation Committee believes that the base salaries paid to our executive officers during the fiscal year ended December 31, 2018 achieved the Company's compensation objectives.

For the fiscal year ended December 31, 2018, the Compensation Committee increased Mr. Hunt's base salary by 9.1%, from \$550,000 to \$600,000, Mr. Snodgres' base salary by 3.0% from \$350,097 to \$360,500 and Mr. Kuriyel's base salary by 14% from \$280,000 to \$320,000. The compensation report prepared by Meridian showed that the 2018 base salaries of these executive officers were competitive with the 50th percentile of the Company's peer group for 2018 as disclosed above. These base salary increases were based on each executive officer's performance, qualifications, experience, responsibilities and Meridian's survey of the publicly disclosed compensation for similar positions at companies in the peer group.

For the fiscal year ending December 31, 2019, the Compensation Committee increased Mr. Hunt's base salary by 14%, from \$600,000 to \$685,000, Mr. Snodgres' base salary by 3% from \$360,500 to \$371,315 and Mr. Kuriyel's base salary by 5%, from \$320,000 to \$336,000. The compensation report prepared by Meridian

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showed that the 2019 base salaries of these executive officers are competitive with the 50th percentile among the Company's 2018 peer group as disclosed above. These base salary increases were based on each executive officer's performance, qualifications, experience, responsibilities and Meridian's survey of the publicly disclosed compensation for similar positions at companies in the peer group.

Annual Cash Incentive Compensation Plan

The Company's executive officers other than the Chief Executive Officer are eligible to receive annual cash incentive compensation based on both corporate performance as measured against the Company goals set forth below (the "Company Objectives"), and their individual performance against goals for their functional areas, pursuant to the Annual Cash Incentive Compensation Plan (the "Plan"). Mr. Hunt is eligible to receive annual cash incentive compensation based solely on corporate results as measured against the Company Objectives pursuant to the Plan. The annual cash incentive compensation earned by each executive officer is determined by the Compensation Committee after the end of each fiscal year and is calculated as a percentage of the executive officer's target annual cash incentive compensation.

The Company establishes the target amount of its annual cash incentive compensation at a level that represents a meaningful portion of the executive officers' cash compensation and sets a threshold performance level for each executive. In establishing these levels, in addition to considering the incentives that the Company wants to provide to the executive officers, it also considers the annual cash incentive compensation levels for comparable positions within our peer group and our own historical practices.

The overall Company Objectives for the fiscal year ended December 31, 2018, (the "Performance Period"), related to product revenue, financial performance, product development, manufacturing and quality, sales and marketing and business and corporate development. See below for further detail regarding the Plan and the Company Objectives.

Plan Protocol

The Compensation Committee administers the Plan:

1. At the beginning of the fiscal year, the Chief Executive Officer, with assistance from senior management, proposes annual corporate goals, measurement criteria and weightings, subject to review and approval by the Compensation Committee.
2. At the beginning of the following fiscal year, the Chief Executive Officer evaluates performance levels and the achievement of these annual corporate goals for all executive officers except for himself, which are subject to review and approval by the Compensation Committee. Specific bonus award recommendations for all participants (except the Chief Executive Officer) are submitted by the Chief Executive Officer to the Compensation Committee for review. The Compensation Committee evaluates individual performance levels, determines the percent achievement of the annual corporate goals and determines the specific bonus awards for all participants, including the Chief Executive Officer.
3. The Compensation Committee determines the size of the overall bonus pool and the bonus awards for individual participants based on the target bonus figures, the Company's performance against the company goals and, in the case of executive officers other than the Chief Executive Officer, performance against individual goals.

Plan Payout

The Compensation Committee is responsible for evaluating actual performance against the performance goals and determining the actual bonus award earned. The Chief Executive Officer submits a documented evaluation of the performance of each of the other participants to the Compensation Committee for its

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consideration to assist the Compensation Committee in its review and proposed bonus awards. The Compensation Committee makes all final determinations regarding performance evaluations of participants and actual bonus awards. See the section titled “*Performance Criteria*” below for a discussion on the performance criteria and determinations for the fiscal year ended December 31, 2018.

Generally, the Company must attain a minimum of 60% overall achievement of its corporate goals for any payment to be made pursuant to the Plan, and the Compensation Committee may, at its discretion, elect to adjust bonuses downwards or not to pay bonuses at all. However, should the Company attain less than 60% overall achievement of its goals, the Compensation Committee may still elect to pay discretionary cash bonuses. A target bonus (as a percentage of base salary) and the weight assigned to corporate and individual results are determined for participants based upon their position. The final incentive payout is determined for each participant based on the achievement of corporate and individual goals (other than for the Chief Executive Officer, whose annual cash incentive award is determined based solely on corporate goals) defined for each organizational level and position and the target incentive percentage.

For the fiscal year ended December 31, 2018, the Company established a target annual cash incentive award and a weighting for corporate goals and individual results for each of the named executive officers, depending on their role, experience and objectives, which are set forth below.

Individual Annual Cash Incentive Targets⁽¹⁾

<u>Name</u>	<u>Bonus Target as % of Salary for the Fiscal Year Ended December 31, 2018</u>	<u>Portion Tied to Corporate Results</u>	<u>Portion Tied to Individual Results</u>
Tony J. Hunt	80%	100%	0%
Jon K. Snodgres	50%	60%	40%
Ralf Kuriyel	50%	60%	40%

(1) Each named executive officer’s target cash incentive amount is determined using the following formula:

$$(\text{Base Salary} \times \text{Bonus Target \%}) \times (\text{Corporate Results \%} + \text{Individual Results \%}) = \text{Cash Incentive Target}$$

Performance Criteria

The cash incentive compensation of executive officers is based on the achievement of certain goals by the Company, as a whole, and, for executive officers other than the Chief Executive Officer, on the achievement of individual performance goals. Criteria and specific goals within each category are as follows:

Company Performance

- The extent to which key financial, strategic, product development, product manufacturing and quality, sales and marketing, business collaboration and corporate development objectives of the Company have been met during the fiscal year.

Executive Performance

- An executive officer’s involvement in and responsibility for the attainment of key financial, product development, product manufacturing and quality, sales and marketing, business collaboration and corporate development and other strategic objectives of the Company;
- The involvement of an executive officer in personnel recruitment, retention and morale; and
- The responsibility of the executive officer in working within budgets, controlling costs and other aspects of expense management.

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Achievement of Company Objectives and Cash Incentive Determination

The portion of cash incentive tied to corporate results is determined based on evaluation of the percentage achievement of the established Company Objectives and other corporate goals, which were determined at the beginning of the 2018 fiscal year. The Company Objectives are tied to revenue and adjusted earnings per share (“EPS”) though the Compensation Committee may consider other corporate performance objectives in determining the cash incentive. The calculation of adjusted EPS and EPS can be found in the Management Discussion and Analysis of Financial Condition and Results of Operations section of our Form 10-K for the year ended December 31, 2018. These other corporate performance objectives include product revenue, financial performance, product development, manufacturing and quality, sales and marketing and business and corporate developments. The Company Objectives and other corporate performance objectives are designed to be difficult to achieve at 100%, and the Compensation Committee assesses the attainment of these objectives. In 2018, the Compensation Committee implemented multipliers that could increase or decrease the actual bonuses paid in a non-linear manner based upon the degree to which the Company achieves or fails to achieve its revenue and adjusted EPS targets. Our Chief Executive Officer evaluated the actual performance of the other executive officers against the performance goals and submitted such evaluation to the Compensation Committee. The ultimate determination of achievement of the Company Objectives and other corporate performance objectives is at the sole discretion of the Compensation Committee following discussions with management and is based both on quantitative, objective calculations such as the achievement of certain financial milestones, as well as a qualitative assessment, which takes into consideration the level of effort, end results, and other contributing internal and external factors that could reasonably be expected to impact performance. The Compensation Committee determined that the overall achievement of the corporate portion of the cash incentive plan for all officers was 100%.

The following is a summary of the Company Objectives for the fiscal year ended December 31, 2018 and the detailed calculation supporting the achievement of each such objective.

<u>Company Objectives for the Fiscal Year Ended December 31, 2018</u>	<u>Weight</u>	<u>Percent Score (Achievement as Determined by Compensation Committee)</u>	<u>Weighted Score</u>
Revenue			
Achieve \$187 million in sales revenue	50%	104.0%	52.00%
Earnings Per Share			
Achieve \$0.72 of adjusted EPS (fully diluted)	50%	100.0%	50.00%
TOTAL CORPORATE PERFORMANCE	<u>100%</u>		<u>102.00%</u>

The Compensation Committee, using its discretion, reviewed this evaluation and determined to set the aggregate percentage achievement of the Company Objectives for the Company’s executive management team at 100%, rather than the weighted score of 102%. In addition, the Compensation Committee had previously allocated to a bonus pool for the Company’s executive officers (other than the Chief Executive Officer) and non-executive management employees in recognition of such individuals’ contributions to the integration of Spectrum.

As the Company’s current President and Chief Executive Officer, Mr. Hunt is responsible for developing company strategy and overseeing all of our corporate functions, product development and commercial activities. Because of his role and responsibilities, Mr. Hunt’s incentive payout is calculated based solely on Company Objectives to closely align his compensation with the Company’s performance. For the fiscal year ended December 31, 2018, in connection with the Company’s increased emphasis on pay-for-performance incentives and the adoption of its performance-based equity program, the Compensation Committee approved a one-time allocation of a portion of Mr. Hunt’s target cash incentive award as performance-based restricted stock units. As a result, for the fiscal year ended December 31, 2018, based on the Company’s achievement of 100% of the

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Company Objectives, Mr. Hunt received (i) a cash incentive award equal to approximately 80% of his target cash incentive compensation, and (ii) performance-based restricted stock units equal to \$220,000, valued based on the closing price of the Company's common stock as of the date of grant.

In addition to the above, the following is a summary of other corporate performance objectives considered by the Compensation Committee in evaluating the individual performance of members of the executive management team (other than the Chief Executive Officer) for the fiscal year ended December 31, 2018 and the detailed calculation supporting the achievement of each such objective.

Other Corporate Performance Objectives Considered by Compensation Committee for the Fiscal Year Ended December 31, 2018	Weight	Percent Score (Achievement as Determined by Compensation Committee)	Weighted Score
Financial Performance			
Achieve direct product revenue targets for OPUS, OPUS PD, TangenX and Spectrum products, achieve revenue synergy, adjusted operating income and adjusted net income targets; maintain gross margin of above 56%.	10%	108.0%	10.8%
Product Development			
Complete launch of key products in product pipeline and complete manufacturing process development on NGL Impact A.	30%	100.0%	30.0%
Manufacturing and Quality			
Increase production capacity at Rancho Dominguez facility, support development of new global ERP system, continued improvement in quality and business continuity for customers, build-out Marlborough site and complete technical transfer of TangenX business.	30%	97.0%	29.1%
Sales and Marketing			
Complete integration of commercial organizations, expand field applications and field service presence in North America, Europe and Asia and support launch of new products.	20%	95.5%	19.1%
Business and Corporate Development			
Establish European distribution center in Breda, complete commercial and operational integration of Spectrum, establish key strategic partnerships to strengthen Ligands and Filtration businesses and develop a strong pipeline of future M&A opportunities.	10%	110.0%	11.0%
TOTAL OTHER CORPORATE PERFORMANCE	<u>100%</u>		<u>100.0%</u>

Achievement of Individual Objectives

In addition to the Company Objectives and other corporate performance objectives outlined above, executive officers, with the exception of Mr. Hunt, also have an individual objective component to their annual cash incentive compensation. The performance assessment for the individual objectives of the executive officers is not calculated on a line item basis, but rather represents an overall assessment as to how the executive officer contributed to the success of the Company through and within his or her area of responsibility. The individual objectives are designed to be difficult to achieve at 100%. The Compensation Committee has assessed the attainment of these individual objectives by Mr. Snodgres and Mr. Kuriyel for 2018.

As the Company's Chief Financial Officer, Mr. Snodgres is responsible for the Company's internal systems, financial controls, and information technology. Specifically, Mr. Snodgres' individual objectives for 2018 included, among other things, scaling the Company's global financing organization, developing reporting tools and automation of reports, improving the financial closing cycle, implementing internal controls over financial

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reporting at the Spectrum level and continuing to expand both management and external reporting capabilities to enhance business decision making and improve transparency of financial performance. The overall evaluation of achievement of these factors involves both quantitative and qualitative analysis. The Chief Executive Officer evaluated Mr. Snodgres' actual performance against his individual objectives and submitted such evaluation to the Compensation Committee. Based on Mr. Snodgres' performance against these criteria, the Compensation Committee determined in its discretion to set Mr. Snodgres' actual cash bonus for 2018 at \$62,250.

Mr. Kuriyel, the Company's Senior Vice President of Research and Development, is responsible for leading and overseeing the Company's research and development and partnering activities to enhance our portfolio of products and services. Mr. Kuriyel's individual objectives for 2018 included, among other things, developing and launching new products, leading all technical collaborations with external partners, developing intellectual property for our product portfolio and driving new applications for our products. The overall evaluation of achievement of these factors involves both quantitative and qualitative analysis. The Chief Executive Officer evaluated Mr. Kuriyel's actual performance against his individual objectives and submitted such evaluation to the Compensation Committee, which determined that the aggregate achievement of the individual objectives for Mr. Kuriyel was 130%.

Annual Bonus Incentive Payments under the Plan

For the fiscal year ended December 31, 2018:

- Mr. Hunt received an incentive payout consisting of (i) \$380,000 in cash and (ii) \$220,000 in performance-based restricted stock units, calculated based on an overall achievement of the Company Objectives of 100% as discussed above.
- Based on corporate results achievement of 100% and Mr. Snodgres' performance against individual criteria, the Compensation Committee determined in its discretion to set Mr. Snodgres' actual cash bonus for 2018 at \$62,250.
- Mr. Kuriyel's cash incentive of \$179,200 was calculated based on individual results of achievement of 130% and corporate results achievement of 100% for an overall achievement of 112%.

Objectives for the Fiscal Year Ending December 31, 2019

Our executive compensation programs for the fiscal year ending December 31, 2019 are generally consistent with our programs for the fiscal year ended December 31, 2018, which received strong support from our stockholders in the "say-on-pay" advisory vote conducted at our 2018 Annual Meeting of Stockholders. However, at this time, the Compensation Committee does not anticipate awarding a portion of Mr. Hunt's target cash incentive compensation as performance-based restricted stock units, as it did for the fiscal year ended December 31, 2018, in future periods. The Company will continue to solely rely upon revenue and adjusted EPS metrics to determine 100% of Mr. Hunt's 2019 annual bonus. The other corporate performance objectives considered by the Compensation Committee in determining the cash incentive for executive officers other than Mr. Hunt for 2019 are as follows:

- *Product Revenue and Financial Performance* — achieve sales targets, meet gross margin, profit and EPS targets and implement SAP in Waltham and Marlborough, Massachusetts.
- *Manufacturing and Quality* — improve production throughput, manage worldwide ligand inventory, continued focus on quality and business continuity for customers, buildout Ravensburg for large-scale OPUS manufacturing, improve overall quality and support SAP implementation.
- *Product Development* — complete launches of next generation ATF controllers and TFDf harvest technologies, expand single use ATF portfolio and continue to develop next generation filtration and chromatography consumables and systems.

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- *Sales and Marketing* — expand field applications and field service presence in North America, Europe and Asia, platform OPUS in large biopharma accounts and support launch of new products.
- *Business and Corporate Development* — expand partnerships in bioprocessing and seek new product and acquisition targets.

Equity Incentive Compensation

The Compensation Committee believes that equity incentives in the form of stock options and restricted stock units subject to vesting over time and restricted stock units subject to performance-based vesting criteria are an effective vehicle for long-term compensation. Equity incentives align individual and team performance with the achievement of the Company's strategic and financial goals, long-term value creation, and stockholders' interests. As a result of the Compensation Committee's ongoing review of the Company's equity incentive compensation program, beginning in 2019, the Compensation Committee determined to place greater emphasis on performance-based incentives through awards of restricted stock units subject to performance-based vesting criteria, which the Compensation Committee believes better aligns the interests of the Company's executive officers with the Company's success and the interests of its stockholders. Performance-based restricted stock units will reward executive officers only if the Company meets certain specified financial and/or operational metrics. Stock options reward executive officers only if the stock price increases from the date of grant over time. Restricted stock units are impacted by all stock price changes, so the value to the executive officers is affected by both increases and decreases in stock price from the market price at the date of grant.

In the fiscal year ended December 31, 2018, the Compensation Committee considered a number of factors in determining what, if any, equity incentive compensation to grant to the executive officers, including:

- the performance of the Company during the fiscal year;
- the number of shares subject to, and exercise price of, outstanding options, both vested and unvested, held by the executive officers;
- the number of restricted stock units held by the executive officers;
- the vesting schedule of the unvested equity awards held by the executive officers;
- the financial statement impact of any equity award;
- the amount and percentage of the total equity on a diluted basis held by the executive officers; and
- the available shares under the Company's equity incentive plan.

In March 2018, the Compensation Committee granted long-term incentive compensation awards to each of the named executive officers of the Company. These awards, which included in the table below, are split equally (based upon dollar value) between stock options and restricted stock units and are subject to vesting over three years.

<u>Name</u>	<u>Number of Shares Underlying Stock Options (#)</u>	<u>Restricted Stock Units (#)</u>
Tony J. Hunt	74,246	38,382
Jon K. Snodgres	20,659	10,680
Ralf Kuriyel	12,850	6,643

Additionally, in February 2018, Messrs. Snodgres and Kuriyel were granted restricted stock units that vest upon the performance of certain operational and financial metrics related to the acquisition of Spectrum.

2019 Long-term Equity Incentive Compensation

In February 2019, the Compensation Committee granted long-term incentive compensation awards to each of the named executive officers of the Company. Consistent with the Company's increased emphasis on

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performance-based incentives, as described above, these awards are split based upon dollar value between performance-based restricted stock units (25%), incentive stock options subject to time-based vesting (25%) and restricted stock units subject to time-based vesting (50%), all of which are subject to vesting over three years. The performance-based restricted stock units vest upon the Company's achievement of specified return on invested capital and average revenue growth targets over the three-year period.

Special Long-term Equity Award

On March 1, 2018, the Compensation Committee granted to Mr. Hunt a one-time, special long-term equity award consisting of 147,623 restricted stock units (the "RSU Award") and an option to purchase 285,563 shares of our Common Stock (the "Option Award, and together with the RSU Award, the "Special Award"), each having a grant date fair value of approximately \$5 million. The Special Award vests in nine equal annual installments over a nine-year period from the grant date. The Special Award, particularly including the extended nine-year vesting period, was granted after careful consideration by the Compensation Committee not only of Mr. Hunt's past performance, but also of his important role in and potential future contributions to the Company's successful creation of long-term value. The award recognizes Mr. Hunt's significant contributions to the Company, his strategic vision and direction, and his consistently superior individual performance, which are reflected in the Company's successful performance since Mr. Hunt's transition from the Company's Chief Operating Officer to Chief Executive Officer in May 2015. The Compensation Committee considered, among other things, that, since Mr. Hunt assumed the role of Chief Executive Officer, the Company has met or exceeded each of its internal growth targets, completed and successfully integrated four strategic acquisitions and achieved a compound annual revenue growth rate of 32%, which exceeded the industry average growth of 8%.

The Special Award was granted to Mr. Hunt in recognition of these, among other, achievements and to provide an additional long-term retention incentive in light of the high demand for executive talent within our industry. The Compensation Committee determined that a nine-year vesting period provides a meaningful incentive for Mr. Hunt to continue to effectively serve as Chief Executive Officer of the Company and to continue to successfully execute on the Company's strategic vision within a market categorized by intense competition for executive level talent. In setting the nine-year vesting period, the Compensation Committee also concluded that this period would most effectively balance the impact of annual dilution to the Company's stockholders with the longer-term interests of the Company and its stockholders in retaining Mr. Hunt as the Company's Chief Executive Officer.

For the above reasons, the Compensation Committee believes that this one-time incentive grant to Mr. Hunt is in the best interests of the Company and its stockholders. At this time, the Compensation Committee does not intend to grant additional one-time incentive awards to any of the Company's employees.

Clawback Policy

In February 2019, our Compensation Committee adopted a clawback policy that covers cash and equity incentive compensation paid to our executive officers. The policy provides that if we are required to prepare an accounting restatement due to our material non-compliance with any financial reporting requirement and/or intentional misconduct by a covered executive officer, our Compensation Committee may require the covered executive officer to repay to us any excess compensation received by the covered executive officer during the three-year fiscal years preceding the publication of any such restated financial statements. For purposes of this policy, excess compensation means annual cash bonus and long-term equity incentive compensation that is in excess of the amount such covered executive officer would have received, if the annual cash bonus and/or long-term equity incentive compensation had been determined based on the financial results reported in the restated financial statement.

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Other Compensation

All full-time employees, including the executive officers, are eligible to participate in the health and welfare benefit programs, including medical, dental and vision care coverage, disability and life insurance and the Company's 401(k) plan.

Tax and Accounting Considerations

We have not provided or agreed to provide any of our executive officers or directors with a gross-up or other reimbursement for tax amounts they might pay pursuant to Section 4999 or Section 409A of the Code. Sections 280G and 4999 of the Code provide that executive officers, directors who hold significant stockholder interests and certain other service providers could be subject to significant additional taxes if they receive payments or benefits in connection with a change in control of our Company that exceed certain limits, and that we or our successor could lose a deduction on the amounts subject to the additional tax. Section 409A also imposes additional significant taxes on the individual in the event that an employee, director or service provider receives "deferred compensation" that is not exempt from or does not meet the requirements of Section 409A.

For our financial statements, cash compensation, such as salary and bonus, is expensed and for our income tax returns, cash compensation is generally deductible except as set forth below. For equity-based compensation, we expense the fair value of such grants over the requisite service period.

Generally, Section 162(m) of the Code disallows a federal income tax deduction for public corporations of remuneration in excess of \$1 million paid for any fiscal year to a "covered employee" of the Company. With respect to taxable years beginning before January 1, 2018, remuneration in excess of \$1 million was exempt from this deduction limit if it qualified as "performance-based compensation" within the meaning of Section 162(m).

Pursuant to the Tax Cuts and Jobs Act of 2017, effective for taxable years beginning after December 31, 2017: (1) the scope of Section 162(m) was expanded such that all named executive officers are "covered employees" and anyone who was a named executive officer in any taxable year beginning after December 31, 2016 will remain a covered employee for as long as he or she (or his or her beneficiaries) receives compensation from the Company, and (2) the exception to the deduction limit for commission-based compensation and performance-based compensation was eliminated except with respect to certain grandfathered arrangements in effect as of November 2, 2017 that are not subsequently materially modified. Accordingly, compensation paid to our named executive officers in excess of \$1 million will not be deductible unless it qualifies for the transition relief applicable to certain arrangements in place as of November 2, 2017, as described above. Furthermore, because of the uncertainties as to the application and interpretation of Section 162(m) as revised by the Tax Cuts and Jobs Act of 2017, including the uncertain scope of the transition relief adopted in connection with repealing the Section 162(m)'s performance-based compensation exception, no assurance can be given that previously granted compensation intended to satisfy the requirements for performance-based compensation will, in fact, qualify for such exception.

The Compensation Committee believes that stockholder interests are best served if the Committee retains maximum flexibility to design executive compensation programs that meet stated business objectives. For these reasons, the Compensation Committee, while considering tax deductibility as a factor in determining executive compensation, may not limit such compensation to those levels that will be deductible, particularly in light of the elimination of the expansion of the covered employee group and the elimination of the exception for performance-based compensation.

Compensation Risk Assessment

The Compensation Committee considers and evaluates risks related to our cash and equity-based compensation programs and practices as well as evaluates whether our compensation plans encourage participants to take excessive risks that are reasonably likely to have a material adverse effect on the Company. Consistent with SEC disclosure requirements, the Compensation Committee has worked with management to assess compensation policies and practices for Company employees and has concluded that such policies and practices do not create risks that are reasonably likely to have a material adverse effect on the Company.

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DIRECTOR AND EXECUTIVE OFFICER COMPENSATION

Compensation Earned

The following table summarizes the compensation earned during the fiscal years ended December 31, 2018, 2017 and 2016 by the Company's principal executive officer, principal financial officer, other most highly compensated executive officer who was serving as an executive officer as of December 31, 2018 and whose total compensation exceeded \$100,000. These individuals are referred to as named executive officers.

2018 Summary Compensation Table

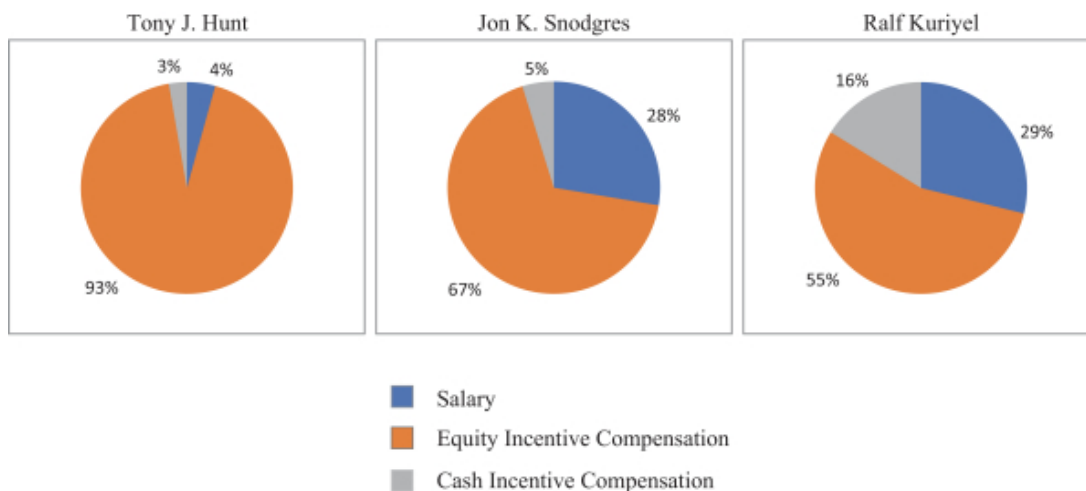
<u>Name</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Stock Awards (\$ (1))</u>	<u>Option Awards (\$ (1))</u>	<u>Non-Equity Incentive Plan Compensation (\$ (2))</u>	<u>All Other Compensation (\$ (3))</u>	<u>Total (\$)</u>
Tony J. Hunt	2018	600,000	6,299,989	6,608,337	380,000	5,000	13,893,326(4)
President and Chief Executive Officer	2017	550,000	1,052,611	1,069,226	453,750	5,000	3,130,587
	2016	500,000	874,993	881,363	401,250	2,000	2,659,606
Jon K. Snodgres	2018	360,500	523,732	355,961	62,250	5,000	1,307,443
Chief Financial Officer	2017	350,097	319,950	298,922	276,883(5)	5,000	1,250,852
	2016	339,500	205,925	207,424	181,847	2,000	936,696
Ralf Kuriyel	2018	320,000	386,998	221,410	179,200	5,000	1,112,608
Senior Vice President of Research and Development	2017	280,000	58,881	—	200,460(5)	5,000	544,341
	2016	48,462(6)	165,250	178,358	—	2,000	394,070

- (1) Represents the aggregate grant date fair value for awards granted in the respective fiscal years calculated in accordance with the ASC 718, "Compensation — Stock Compensation." The assumptions the Company used for calculating the grant date fair values are set forth in Note 2, "Summary of Significant Accounting Policies — Stock Based Compensation" to the Company's consolidated financial statements included in the Company's Form 10-K for the fiscal year ended December 31, 2018. The values reported for the performance-based restricted stock units granted to Messrs. Snodgres and Kuriyel in 2018 represent the grant date fair values of awards assuming the probable outcome of the performance conditions. The value of such awards assuming the maximum achievement of the performance conditions is \$162,000 for Mr. Snodgres and \$162,000 for Mr. Kuriyel.
- (2) Amounts listed represent payments made with respect to the year indicated under the Company's Annual Cash Incentive Compensation Plan, as described above.
- (3) Represents the match paid by the Company on behalf of such individual into the Repligen Corporation 401(k) Savings Plan on 50% of the first 6% of eligible compensation contributed by such individual subject to a maximum of \$5,000 per year for the years ended December 31, 2018 and 2017, and on the first 5% of eligible compensation contributed by such individual subject to a maximum of \$2,000 per year for the year ended December 31, 2016.
- (4) Includes the grant date fair value of Mr. Hunt's one-time special long-term equity award granted in 2018. For more information on this grant see "Compensation Discussion and Analysis — Equity Incentive Compensation" above.
- (5) Includes two grants during 2018 of special cash incentives based upon achievement of individual and corporate performance goals related to the integration of Spectrum as of December 31, 2017. In March 2018, Mr. Snodgres received \$34,333 and Mr. Kuriyel received \$34,000 and in October 2018, Mr. Snodgres received \$46,550 and Mr. Kuriyel received \$45,500.
- (6) Mr. Kuriyel joined the Company on October 17, 2016 as Senior Vice President, Research and Development.

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The following graphs reflect the allocation of salary, equity incentive compensation, cash incentive compensation, and other compensation earned by our named executive officers in the fiscal year 2018.

2018 Summary Compensation Allocations*



* *All Other Compensation* presented in the 2018 Summary Compensation Table above represents less than 1% of the 2018 compensation paid to each of our named executive officers.

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Grants of Plan-Based Awards for the Fiscal Year Ended December 31, 2018

The table below sets forth grants of plan-based awards that were made in the fiscal year ended December 31, 2018 to our named executive officers.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards: Threshold (\$ (1))	Estimated Future Payouts Under Non-Equity Incentive Plan Awards: Target (\$ (2))	Estimated Future Payouts Under Equity Incentive Plan Awards: Target (#) (3)	All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Share)	Grant Date Fair Value of Stock and Option Awards (\$)
Tony J. Hunt	—	288,000	480,000	—	—	—	—	—
	3/01/2018	—	—	—	—	285,563(4)	33.87	5,329,054
	3/01/2018	—	—	—	—	74,246	33.87	1,279,282
Jon K. Snodgres	3/01/2018	—	—	—	186,005(4)	—	—	6,299,989
	—	136,990	180,250	—	—	—	—	—
	2/21/2018	—	—	5,000	—	—	—	162,000
Ralf Kuriyel	3/01/2018	—	—	—	—	20,659	33.87	355,961
	3/01/2018	—	—	—	10,680	—	—	361,732
	—	121,600	160,000	—	—	—	—	—
Ralf Kuriyel	2/21/2018	—	—	5,000	—	—	—	162,000
	3/01/2018	—	—	—	—	12,850	33.87	221,410
	3/01/2018	—	—	—	6,643	—	—	224,998

- (1) The amounts represent the threshold bonus, assuming achievement of 60% of the Company Objectives for Mr. Hunt and 60% of the Company Objectives and other corporate goals and 100% achievement of the individual goals for Mr. Snodgres and Mr. Kuriyel.
- (2) The amounts represent the target bonus, assuming achievement of 100% of the Company Objectives for Mr. Hunt and 100% of the Company Objectives and other corporate goals and 100% achievement of the individual goals for Mr. Snodgres and Mr. Kuriyel. The actual bonus awarded by the Compensation Committee can be higher or lower than the target depending on achievement of corporate and individual goals. The actual amounts awarded for 2018 performance are listed in the Non-Equity Incentive Plan Compensation column of the Summary Compensation Table.
- (3) In February 2018, Messrs. Snodgres and Kuriyel were granted restricted stock units that vest upon the performance of certain operational and financial metrics related to the acquisition of Spectrum.
- (4) Represent Mr. Hunt's one-time special long-term equity award consisting of 147,623 restricted stock units and option to purchase 285,563 shares of our Common Stock. For more information on this one-time award, see "Compensation Discussion and Analysis — Equity Incentive Compensation," above.

Discussion of Summary Compensation Table and Grants of Plan-Based Awards Table

The Company's executive compensation policies and practices, pursuant to which the compensation set forth in the Summary Compensation Table and the Grants of Plan-Based Awards Table was paid or awarded, are described above under "Compensation Discussion and Analysis." The material terms of employment agreements and arrangements with our named executive officers are described below under the heading "Potential Payments upon Termination or Change in Control — Employment Arrangements."

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Outstanding Equity Awards at December 31, 2018

This following table sets forth certain information regarding the outstanding stock option grants and stock awards held by the named executive officers at December 31, 2018. Awards were made under the Amended and Restated 2012 Repligen Corporation Stock Option and Incentive Plan (the “2012 Stock Option Plan”), as amended, or the Second Amended and Restated 2001 Repligen Corporation Stock Plan (the “2001 Stock Plan”). For the outstanding stock option grants and stock awards described below, vesting is conditioned on the named executive officer remaining in service to the Company through such vesting date. Such awards may also be subject to accelerated vesting as described in “Potential Payments Upon Termination or a Change in Control”

Name	Grant Date	Option Awards				Stock Awards			Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Rights that Have not Vested (\$)
		Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)(1)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that Have not Vested (#)	
Tony J. Hunt	5/5/2014	28,124	10,000(2)	16.55	5/5/2024	—	—	—	—
	5/5/2014	—	—	—	—	5,000(3)	263,700	—	—
	2/26/2016	43,567	21,784(4)	26.05	2/26/2026	—	—	—	—
	2/26/2016	—	—	—	—	11,196(5)	590,477	—	—
	2/23/2017	21,658	43,317(6)	32.40	2/23/2027	—	—	—	—
	2/23/2017	—	—	—	—	21,659(7)	1,142,296	—	—
	3/1/2018	—	285,563(8)	33.87	2/29/2028	—	—	—	—
	3/1/2018	—	74,246(9)	33.87	2/29/2028	—	—	—	—
	3/1/2018	—	—	—	—	147,623(10)	7,785,637	—	—
	3/1/2018	—	—	—	—	38,382(11)	2,024,267	—	—
Jon K. Snodgres	7/14/2014	8,000	2,000(12)	24.50	7/14/2024	—	—	—	—
	7/14/2014	—	—	—	—	1,000(13)	52,740	—	—
	2/26/2016	10,253	5,127(14)	26.05	2/26/2026	—	—	—	—
	2/26/2016	—	—	—	—	2,635(15)	138,970	—	—
	2/23/2017	6,055	12,110(16)	32.40	2/23/2027	—	—	—	—
	2/23/2017	—	—	—	—	6,584(17)	347,240	—	—
	2/21/2018	—	—	—	—	—	—	5,000(18)	263,700
	3/1/2018	—	20,659(19)	33.87	2/29/2028	—	—	—	—
Ralf Kuriyel	3/1/2018	—	—	—	—	10,680(20)	563,263	—	—
	12/14/2016	4,000	6,000(21)	33.05	12/14/2026	—	—	—	—
	12/14/2016	—	—	—	—	3,000(22)	158,220	—	—
	5/12/2017	—	—	—	—	1,011(23)	53,320	—	—
	2/21/2018	—	—	—	—	—	—	5,000(24)	263,700
	3/1/2018	—	12,850(25)	33.87	2/29/2028	—	—	—	—
3/1/2018	—	—	—	—	6,643(26)	350,352	—	—	

(1) The value of equity awards is based on the closing of our stock on the NASDAQ Global Market on December 31, 2018, the last trading day of 2018, which was \$52.74.

(2) 10,000 shares vest on May 5, 2019.

(3) 5,000 shares vest on May 5, 2019.

(4) 21,784 shares vested on February 26, 2019.

(5) 11,196 shares vested on February 26, 2019.

(6) 21,658 shares vested on February 23, 2019 and 21,659 shares vest on February 23, 2020.

(7) 10,829 shares vested on February 23, 2019 and 10,830 shares vest on February 23, 2020.

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- (8) 31,729 shares vest annually from March 1, 2019 to March 1, 2022 and annually from March 1, 2024 to March 1, 2026. 31,730 shares vest on March 1, 2023 and March 1, 2027.
- (9) 24,749 shares vested on March 1, 2019; 24,749 shares vest on March 1, 2020 and 24,748 shares vest on March 1, 2021.
- (10) 16,402 shares vested on March 1, 2019, March 1, 2021, March 1, 2023 and March 1, 2025. 16,403 shares vest on March 1, 2020, March 1, 2022, March 1, 2024, March 1, 2026 and March 1, 2027.
- (11) 12,794 shares vest on each of the following dates: March 1, 2019, March 1, 2020 and March 1, 2021.
- (12) 2,000 shares vest on July 14, 2019.
- (13) 1,000 shares vest on July 14, 2019.
- (14) 5,127 shares vested on February 26, 2019.
- (15) 2,635 shares vested on February 26, 2019.
- (16) 6,055 shares vest on each of the following dates: February 23, 2019 and February 23, 2020.
- (17) 3,292 shares vest on each of the following dates: February 23, 2019 and February 23, 2020.
- (18) 4,700 shares vested on March 1, 2019 as determined by the Compensation Committee based on the level of achievement of certain goals by the Company in 2018. The remaining 300 shares from this grant were forfeited.
- (19) 6,886 shares vest on each of the following dates: March 1, 2019 and March 1, 2020. 6,887 shares vest on March 1, 2021.
- (20) 3,560 shares vest on each of the following dates: March 1, 2019, March 1, 2020 and March 1, 2021.
- (21) 2,000 shares vest on each of the following dates: December 14, 2019, December 14, 2020 and December 14, 2021.
- (22) 1,000 shares vest on each of the following dates: December 14, 2019, December 14, 2020 and December 14, 2021.
- (23) 505 shares vest on May 12, 2019 and 506 shares vest on May 12, 2020.
- (24) 4,700 shares vested on March 1, 2019 as determined by the Compensation Committee based on the level of achievement of certain goals by the Company in 2018. The remaining 300 shares from this grant were forfeited.
- (25) 4,283 shares vest on each of the following dates: March 1, 2019 and March 1, 2020. 4,284 shares vest on March 1, 2021.
- (26) 2,214 shares vest on each of the following dates: March 1, 2019 and March 1, 2020. 2,215 shares vest on March 1, 2021.

Option Exercises and Stock Vested for the Fiscal Year Ended December 31, 2018

The following table sets forth certain information regarding the number of stock options exercised, restricted stock units that vested and amounts realized by the named executive officers in the year ended December 31, 2018.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$) (1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$) (2)
Tony J. Hunt	11,873	488,682	33,784	1,199,517
Jon K. Snodgres	31,753	1,154,784	8,908	511,932
Ralf Kuriyel	—	—	1,505	76,745

- (1) The value realized on exercise of an option award is based on the difference between the fair market value of our Common Stock on the date of exercise and the exercise price of the option.
- (2) The value realized on vesting of restricted stock units is based on the closing price of our Common Stock on the trading date immediately preceding the date of vesting.

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Pension Benefits

The Company has no defined benefit plans or other supplemental retirement plans for the named executive officers.

Nonqualified Deferred Compensation

The Company has no nonqualified defined contribution plans or other nonqualified deferred compensation plans for the named executive officers.

Potential Payments upon Termination or Change in Control

Employment Arrangements

On February 26, 2015, the Company entered into an Amended and Restated Employment Agreement (the “Employment Agreement”) with Mr. Hunt. Pursuant to the terms of the Employment Agreement, in the event that Mr. Hunt’s employment is terminated by the Company without cause or he resigns for good reason, each as defined in the Employment Agreement, Mr. Hunt will be entitled to receive severance pay equal to 12 months of his base salary at the rate then in effect, and 50% of his unvested stock options and other unvested stock-based awards will vest immediately, with the exception of the Special Award discussed in the “*Compensation Discussion and Analysis — Equity Incentive Compensation*,” above. The Special Award is not subject to acceleration upon a termination of Mr. Hunt’s employment with the Company. Mr. Hunt will also receive a cash payment equal to the Company’s monthly contribution to group health insurance coverage through COBRA for 12 months following the termination date.

If Mr. Hunt’s employment is terminated within 12 months following a change in control of the Company, Mr. Hunt will be entitled to receive a lump sum payment equal to two times his base salary at the rate then in effect (or at the rate in effect immediately prior to the change in control, if higher), and 100% of his unvested stock options and other unvested stock-based awards, other than the Special Award, will vest immediately. In addition, Mr. Hunt will receive a cash payment equal to the Company’s monthly contribution to group health insurance coverage through COBRA for 18 months following the termination date. In the event of a change in control of the Company, any then unvested portion of Mr. Hunt’s Special Award shall vest as of immediately prior to such change in control.

The Company entered into an offer letter for employment “at will” with Mr. Snodgres on June 10, 2014. The offer letter for Mr. Snodgres provides for the following payments and benefits upon termination of his employment without cause, as defined in the offer letter: continuation of his base salary at the rate then in effect for a period of six months following the date of termination, health insurance coverage through COBRA for a period of six months with the cost of such benefits as in effect on the date of termination to be shared in the same relative proportion by the Company and Mr. Snodgres, and immediate vesting of 50% percent of all of Mr. Snodgres’ then unvested initial stock option and restricted stock unit awards made in connection with his hiring as the Company’s Chief Financial Officer.

The Company entered into an offer letter for employment “at will” with Mr. Kuriyel on September 3, 2016. The offer letter with Mr. Kuriyel does not provide for benefits upon termination of employment, with or without cause, or upon a change in control.

In May 2018, the Compensation Committee approved amendments to the stock option and restricted stock unit awards granted to Messrs. Snodgres and Kuriyel and certain members of the Company’s senior management, in connection with their initial hiring by the Company, to provide that such initial awards shall vest in full upon a change in control of the Company.

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Equity Awards

The 2012 Plan, and the Repligen Corporation 2018 Stock Option and Incentive Plan (the “2018 Plan”, and collectively referred to as “the Plans”), provide that upon the effectiveness of a “sale event,” as defined in the Plans, except as otherwise provided by the Compensation Committee in the award agreement, all outstanding awards will automatically terminate, unless the parties to the sale event agree that such awards will be assumed or continued by the successor entity. The Compensation Committee subsequently determined that upon a “sale event,” notwithstanding anything to the contrary in the applicable award agreement, the initial equity awards made to Messrs. Snodgres and Kuriyel, and certain members of the Company’s senior management team in connection with their initial hiring be immediately accelerated and become fully exercisable or nonforfeitable. In addition, in the case of a sale event in which the Company’s stockholders receive cash consideration, the Company may make or provide for a cash payment to participants holding options equal to the difference between the per share cash consideration and the exercise price of the options and, under the 2018 Plan, make or provide for a payment, in cash or in kind, to the grantees holding other awards in an amount equal to the per share cash consideration multiplied by the number of vested shares underlying such awards.

Stock options granted under the 2001 Stock Plan do not automatically accelerate upon termination of such named executive officer’s employment or upon a change in control pursuant to the terms of the 2001 Stock Plan.

Assuming a qualifying termination were to have taken place on December 31, 2018, each of the named executive officers would have been entitled to the payments and benefits shown in the table below.

Name	Payments and Benefits			Total (\$)
	Base Salary Continuation (\$)	Value of Accelerated Vesting of Stock-Based Awards (\$) (1)	Value of Health Insurance Under COBRA (\$)	
Tony J. Hunt	600,000	3,815,677	28,538	4,444,216
Jon K. Snodgres	180,250	54,610	14,269	249,129
Ralf Kuriyel	—	—	—	—

(1) Based on the intrinsic value of the stock options on December 31, 2018, which is calculated using the \$52.74 market closing price of the Common Stock on December 31, 2018, the last trading day of 2018.

Assuming a change in control and qualifying termination were to have taken place on December 31, 2018, each of the named executive officers would have been entitled to the payments and benefits shown in the table below.

Name	Payments and Benefits			Total (\$)
	Base Salary Continuation (\$)	Value of Stock Options Vesting (\$) (1)	Value of Health Insurance Under COBRA (\$)	
Tony J. Hunt	1,200,000	20,420,391	42,808	21,663,199
Jon K. Snodgres	180,250	54,610	14,269	249,129
Ralf Kuriyel	—	—	—	—

(1) Based on the intrinsic value of the stock options on December 31, 2018 based upon market closing price of \$52.74 on of the Common Stock on December 31, 2018, the last trading day of 2018.

CEO Pay Ratio

Pursuant to a mandate of the Dodd-Frank Act, the SEC adopted a rule requiring annual disclosure of the ratio of the median employee’s total annual compensation to the total annual compensation of the principal executive officer (“PEO”). The PEO of our Company is Tony J. Hunt.

Our compensation and benefits philosophy and the overall structure of our compensation and benefit programs are broadly similar across the organization and aim to encourage and reward all employees who contribute to our

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success. We strive to ensure the pay of every employee of the Company reflects the level of their job impact and responsibilities and is competitive within our peer group. Compensation rates are benchmarked and are generally set to be market-competitive in the country in which the jobs are performed. Our ongoing commitment to pay equity is critical to our success in supporting a diverse workforce with opportunities for all employees to grow, develop, and contribute.

We identified the median employee using total compensation as reported on Form W-2, subtracting bonuses earned in 2017 but paid in 2018, adding bonuses earned in 2018 but not paid until March 2019, and adding the fair value of equity awards granted to the employee during 2018. All individuals who were employed by us on December 31, 2018, the last day of our fiscal year, were included in the determination of this calculation (including all employees, whether employed on a full-time, part-time, seasonal or temporary basis).

As illustrated in the table below, our 2018 PEO to median employee pay ratio was approximately 144:1. The value of the one-time Special Award granted to Mr. Hunt in 2018 (valued at \$10,000,000), having a nine-year vesting term and described in further detail under “*Special Long-Term Equity Award*” above, is included in this ratio. At this time, the Compensation Committee does not intend to make similar grants of additional one-time incentive awards to Mr. Hunt.

Tony J. Hunt (PEO) 2018 Compensation	\$ 13,893,326
Median Employee 2018 Compensation	\$ 96,477
Ratio of PEO to Median Employee Compensation	144:1

To determine the median employee, we included all individuals employed as of December 31, 2018. Compensation for the median employee was determined in the same manner as the total compensation reported for Mr. Hunt in the “Total” column of the Summary Compensation Table. The pay ratio reported above is a reasonable estimate calculated in a manner consistent with SEC rules, based on our internal records and the methodology described above. The SEC rules for identifying the median compensated employee allow companies to adopt a variety of methodologies, to apply certain exclusions and to make reasonable estimates and assumptions that reflect their employee populations and compensation practices. Accordingly, the pay ratio reported by other peer companies may not be comparable to the pay ratio reported above, as other companies have different employee populations and compensation practices and may use different methodologies, exclusions, estimates and assumptions in calculating their own pay ratios.

Director Compensation

For the fiscal year ended December 31, 2018, non-employee directors received an annual cash retainer for service on the Board of Directors and committees as set forth in the table below.

	<u>Annual Retainer</u>
Board of Directors	
Each Non-Employee Member of the Board	\$ 50,000
Additional Retainer for the Chairperson	\$ 90,000
Audit Committee	
Committee Chairperson	\$ 30,000
Other Committee Members	\$ 10,000
Compensation Committee	
Committee Chairperson	\$ 20,000
Other Committee Members	\$ 10,000
Nominating and Corporate Governance Committee	
Committee Chairperson	\$ 16,000
Other Committee Members	\$ 5,000

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Under the Company's Amended and Restated Director Compensation Policy, as amended in February 2016, each newly-elected, non-employee director who joins the Board receives an option to purchase 24,000 shares of Common Stock on the date he or she joins the Board. These initial option grants vest in equal annual installments over a three-year period from the date of grant, provided such person is still a director on such vesting date. In addition, at each annual meeting, each non-employee director re-elected to the Board by the stockholders is awarded annual equity compensation. In 2018, all non-employee directors, other than the Chairperson, were entitled to annual equity compensation with a grant date fair value of \$125,000, and the Chairperson was entitled to annual equity compensation with a grant date fair value of \$175,000. The annual equity compensation award is 50% in the form of restricted stock units, and 50% in the form of stock options. Annual equity awards vest in full on the earlier of the first anniversary of the date of the grant or the next annual meeting of the stockholders, provided such person is still a director on such vesting date.

Director Compensation Table for the Fiscal Year Ended December 31, 2018

The following table sets forth a summary of the compensation the Company paid to its non-employee directors in the year ended December 31, 2018.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)(1)(2)(3)	Option Awards (\$)(1)(2)(3)	Total (\$)
Nicolas M. Barthelemy	65,000	62,516	62,854	190,370
Glenn L. Cooper	70,000	62,516	62,854	195,370
John G. Cox	60,000	62,516	62,854	185,370
Karen A. Dawes	156,000	87,506	88,003	331,509
Glenn P. Muir	90,000	62,516	62,854	215,370
Thomas F. Ryan, Jr.	65,000	62,516	62,854	190,370

- (1) Represents the aggregate grant date fair value of awards granted in 2018 calculated in accordance with the ASC 718. The assumptions the Company used for calculating the grant date fair values are set forth in Note 2 to the Company's consolidated financial statements included in the Company's Form 10-K for the fiscal year ended December 31, 2018.
- (2) The non-employee directors of the Board who held such position on December 31, 2018 held the following aggregate number of unexercised stock options and unvested restricted stock units as of such date:

Name	Number of Securities Underlying Unexercised Options	Number of Unvested Restricted Stock Units
Nicolas M. Barthelemy	3,304	1,486
Glenn L. Cooper	73,792	1,486
John G. Cox	36,736	1,486
Karen A. Dawes	78,189	14,080
Glenn P. Muir	33,104	1,486
Thomas F. Ryan, Jr.	8,730	1,486

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- (3) The following table presents the grant date fair value of each grant of restricted stock units or stock options in the fiscal year ended December 31, 2018 to non-employee directors, computed in accordance with the ASC 718:

<u>Name</u>	<u>Grant Date</u>	<u>Number of Restricted Stock Units (#)</u>	<u>Number of Securities Underlying Options (#)</u>	<u>Exercise Base Price of Option Awards (\$)</u>	<u>Grant Date Fair Value of Stock and Option Awards (\$)</u>
Nicolas M. Barthelemy	5/16/2018	—	3,304	42.07	62,854
	5/16/2018	1,486	—	—	62,516
Glenn L. Cooper	5/16/2018	—	3,304	42.07	62,854
	5/16/2018	1,486	—	—	62,516
John G. Cox	5/16/2018	—	3,304	42.07	62,854
	5/16/2018	1,486	—	—	62,516
Karen A. Dawes	5/16/2018	—	4,626	42.07	88,003
	5/16/2018	2,080	—	—	87,506
Glenn P. Muir	5/16/2018	—	3,304	42.07	62,854
	5/16/2018	1,486	—	—	62,516
Thomas F. Ryan Jr.	5/16/2018	—	3,304	42.07	62,854
	5/16/2018	1,486	—	—	62,516

Compensation Committee Interlocks and Insider Participation

Dr. Cooper and Messrs. Barthelemy and Muir were the members of the Compensation Committee during the year ended December 31, 2018. No member of the Compensation Committee is a current or former employee of the Company, or had any relationship with us requiring disclosure herein. No interlocking relationship exists between any member of our Board or our Compensation Committee and any member of the board or compensation committee of any other company and no such interlocking relationship has existed in the past.

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PROPOSAL NO. 2
RATIFICATION OF THE SELECTION OF INDEPENDENT REGISTERED
PUBLIC ACCOUNTING FIRM

The Audit Committee of the Board has appointed Ernst & Young LLP, an independent registered public accounting firm, to serve as independent auditors for the fiscal year ending December 31, 2019. Ernst & Young LLP has served as the Company's independent registered public accounting firm since 2002. In accordance with standing policy, Ernst & Young LLP periodically changes the personnel who work on the audits of the Company.

Fees

The following sets forth the aggregate fees billed by Ernst & Young LLP to the Company during the fiscal years ended December 31, 2018 and 2017:

	<u>FY2018</u>	<u>FY2017</u>
Audit Fees	\$ 2,470,000	2,465,000
Audit Related Fees	—	349,000
Tax Fees	10,000	138,000
All Other Fees	2,000	2,000
Total	<u>\$ 2,482,000</u>	<u>\$ 2,954,000</u>

Audit Fees

Fees for audit services were approximately \$2,470,000 and \$2,465,000 for the fiscal years ended December 31, 2018 and 2017, respectively. These amounts included fees associated with the annual audit of the consolidated financial statements, reviews of the Company's Form 10-Q and fees associated with the statutory filings and filings with the SEC.

Audit Related Fees

For the fiscal year ended December 31, 2017, we incurred fees of approximately \$349,000 for due diligence activities related to our acquisition of Spectrum Inc.

Tax Fees

Fees billed for tax services were approximately \$10,000 and \$138,000 for the fiscal years ended December 31, 2018 and 2017, respectively. These amounts included fees associated with tax compliance, consulting and related services. The higher fees billed for tax services in 2017 is related to fees associated with tax compliance services related to our acquisition of Spectrum, Inc.

All Other Fees

Ernst & Young LLP billed \$2,000 in additional fees in each of the fiscal years ended December 31, 2018 and 2017 relating to a subscription to Ernst & Young LLP's online accounting research service.

The Audit Committee of the Board has implemented procedures under the Company's Audit Committee Pre-Approval Policy for Audit and Non-Audit Services (the "Pre-Approval Policy"), to ensure that all audit and permitted non-audit services provided to the Company are approved by the Audit Committee. Specifically, the Audit Committee pre-approves the use of Ernst & Young LLP for specific audit and non-audit services, within approved monetary limits. If a proposed service has not been pre-approved pursuant to the Pre-Approval Policy, then it must be specifically pre-approved by the Audit Committee before Ernst & Young LLP may provide the

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services. Any pre-approved services exceeding the limits pre-approved by the Audit Committee must again be pre-approved by the Audit Committee. All of the audit-related, tax and all other services provided by Ernst & Young LLP to the Company for the fiscal year ended December 31, 2018 were pre-approved by the Audit Committee. All non-audit services provided in the fiscal year ended December 31, 2018 were reviewed with the Audit Committee, which concluded that the provisions of such services by Ernst & Young LLP was compatible with the maintenance of that firm's independence in the conduct of its auditing functions.

In connection with the audit for the fiscal year ended December 31, 2018, there were no disagreements with Ernst & Young LLP on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which, if not resolved to the satisfaction of Ernst & Young LLP, would have caused them to refer to such disagreement in connection with their report.

A member of Ernst & Young LLP is expected to be present at the Annual Meeting with the opportunity to make a statement if so desired and will be available to respond to appropriate questions.

Accordingly, the Board believes ratification of the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the current year is in the best interests of the Company and its stockholders and recommends a vote FOR the ratification of Ernst & Young as the Company's independent registered public accounting firm.

PROPOSAL NO. 3

ADVISORY VOTE ON EXECUTIVE COMPENSATION

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, enables our stockholders to vote to approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the SEC's rules.

As described in the sections entitled "Compensation Discussion and Analysis" and "Director and Executive Officer Compensation", our executive compensation programs are designed to motivate our executive officers to enhance stockholder value, to provide a fair reward for this effort and to stimulate our executive officers' professional and personal growth. The Company seeks to provide near-term and long-term financial incentives that align the executive officers' interest with those of the stockholders and focus executive officer behavior on the achievement of near-term corporate goals, as well as long-term business objectives and strategies. We believe that this alignment between executive compensation and stockholder interests has driven corporate performance over time.

Our stockholders voted on May 18, 2017, to have advisory votes every year to approve the compensation paid to the Company's named executive officers, and we have adopted that approach. The Board of Directors and Compensation Committee make executive compensation decisions every year, and our directors will look to the annual advisory vote for information to be taken into account when they make decisions with respect to our compensation philosophy, policies and practices. The Compensation Committee and the Board of Directors note our stockholders' endorsement for the Company's executive compensation program for the fiscal year ended December 31, 2018, which was approved by almost 97% of the votes cast. Consequently, the Compensation Committee has generally maintained the structure of its executive compensation programs for the fiscal years ended December 31, 2018. **Accordingly, we are asking our stockholders to vote FOR the following non-binding, advisory resolution on the approval of the compensation of the Company's named executive officers as disclosed in this proxy statement:**

"RESOLVED, that the stockholders of the Company approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed in this proxy statement, including the Compensation Discussion and Analysis, compensation tables and narrative discussion."

We urge you to read the Compensation Discussion and Analysis and Director and Executive Officer Compensation sections of this proxy statement for additional details on the Company's executive compensation, including our governance, framework, components, and the compensation decisions for the named executive officers for the fiscal year ended December 31, 2018.

As an advisory vote, the results of this vote will not be binding on the Board of Directors or the Company. However, the Board of Directors and the Compensation Committee value the opinions of our stockholders, and will consider the outcome of the vote when making future decisions on the compensation of our named executive officers and the Company's executive compensation principles, policies and procedures.

The Board of Directors recommends that stockholders vote FOR approval, on an advisory basis, of the compensation of the Company's named executive officers, as disclosed in this proxy statement, including the Compensation Discussion and Analysis, compensation tables and narrative discussion.

ADDITIONAL INFORMATION

Stockholder Proposals

Repligen must receive any proposal by a stockholder of Repligen for inclusion in the proxy statement furnished to all stockholders entitled to vote at our 2020 Annual Meeting of Stockholders at our principal executive office not later than December 20, 2019 in accordance with Rule 14a-8 issued under the Exchange Act.

If a stockholder wishes to propose a nomination of persons for election to our board of directors or present a proposal at an annual meeting but does not wish to have the proposal considered for inclusion in our proxy statement and proxy card, our amended and restated by-laws establish an advance notice procedure for such nominations and proposals. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting.

The required notice must be in writing and received by our corporate secretary at our principal executive offices not earlier than 90 days nor later than 60 days prior to the first anniversary of the preceding year's annual meeting. However, in the event that the date of the annual meeting is advanced by more than 30 days or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received no later than the close of business of the 90th day prior to such annual meeting or of the tenth day following the day on which notice of the date of such annual meeting was first made, whichever occurs later. For stockholder proposals to be brought before the 2020 Annual Meeting, the required notice must be received by our corporate secretary at our principal executive offices no earlier than February 15, 2020 and no later than March 16, 2020. Stockholder proposals and the required notice should be delivered to Repligen Corporation, Attention: Secretary, 41 Seyon Street, Building #1, Suite 100, Waltham, Massachusetts 02453.

Subject to the SEC's proxy rules, if a stockholder who wishes to present a proposal at the 2020 Annual Meeting (which is not otherwise submitted for inclusion in the proxy statement in accordance with the preceding paragraph) fails to notify the Company by March 16, 2020 and such proposal is brought before the 2020 Annual Meeting, then under the SEC's proxy rules, if the proxy statement or form of proxy for the 2020 Annual Meeting so provides, the proxies solicited by Repligen with respect to the 2019 Annual Meeting will confer discretionary voting authority with respect to the stockholder's proposal on the persons selected by Repligen to vote the proxies solicited by Repligen. If a stockholder makes a timely notification, the proxies may still exercise discretionary voting authority under circumstances consistent with the SEC's proxy rules.

Any proposal intended to be presented at the 2020 Annual Meeting must also comply with the other requirements of the proxy solicitation rules of the SEC. In order to curtail any controversy as to the date on which a proposal was received by Repligen, it is suggested that proponents submit their proposal by Certified Mail, Return Receipt Requested or other means, including electronic means that permit them to prove date of delivery.

Other Business

Management does not know of any other matters to be brought before the Annual Meeting except those set forth in the notice thereof. If other business is properly presented for consideration at the Annual Meeting, the persons named on the enclosed proxy will have discretionary authority to vote the shares represented by such proxies in accordance with their best judgment.

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Voting Proxies

The Board of Directors recommends an affirmative vote on all proposals specified. Proxies will be voted as specified. If authorized proxies are submitted without specifying an affirmative or negative vote on any proposal, the shares represented by such proxies will be voted in favor of the Board of Directors' recommendations.

Householding

Our Annual Report, including audited financial statements for the fiscal year ended December 31, 2018, is being mailed to you along with this proxy statement. In order to reduce printing and postage costs, Broadridge Financial Solutions, Inc., ("Broadridge"), has undertaken an effort to deliver only one Annual Report and one proxy statement to multiple stockholders sharing an address. This delivery method, called "householding," is not being used if Broadridge has received contrary instructions from one or more of the stockholders sharing an address. If your household has received only one Annual Report and one proxy statement, Repligen Corporation will deliver promptly a separate copy of the Annual Report and the proxy statement to any stockholder who sends a written request to Repligen Corporation, Attention: Secretary, 41 Seyon Street, Building #1, Suite 100, Waltham, MA 02453. If your household is receiving multiple copies of Repligen's Annual Reports or proxy statements and you wish to request delivery of only a single copy, you may send a written request to Repligen Corporation, Attention: Secretary, 41 Seyon Street, Building #1, Suite 100, Waltham, MA 02453.

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Appendix A

DIRECTIONS TO ANNUAL MEETING

Repligen Corporation Headquarters

41 Seyon Street
Building 1, Suite 100
Waltham, MA 02453
(781) 250-0111

Driving Directions from Logan International Airport (BOS)

- Take the Massachusetts Turnpike West (I-90 WEST).
- Take exit 17, toward Watertown. Bear right and stay straight on Galen Street/Route 16. Distance from exit 17 to Repligen is approximately 2.7 miles.
- Go straight through 4-way intersection, cross over small bridge and turn left onto Route 20/Main Street. Follow this for about 1.5 miles.
- Turn left onto Gore Street.
- Stay on Gore Street, go straight at 4-way stop. You are now on Seyon Street. Turn right into parking lot.

Driving Directions from the North traveling South on Route 128/I-95 South

- Follow Route 128/I-95 South and take exit 26/Route 20. Follow the signs that direct you to Waltham (Weston Street). Distance from exit 26 to Repligen is 4.0 miles.
- Route 20 will become Main Street in Waltham. Follow Route 20 for about 3.5 miles.
- Take a right onto Gore Street.
- Stay on Gore Street, go straight at 4-way stop. You are now on Seyon Street. Turn right into parking lot.

Driving Directions from the South traveling North on Route 128/I-95 North

- Follow Route 128/I-95 North and take exit 26/ Route 20. Follow the signs that direct you to Waltham (Weston Street). Distance from exit 26 to Repligen is 4.0 miles.
- Route 20 will become Main Street in Waltham. Follow Route 20 for about 3.5 miles.
- Take a right onto Gore Street.
- Stay on Gore Street, go straight at 4-way stop. You are now on Seyon Street. Turn right into parking lot.

Driving Directions from the North traveling on Route 2

- Follow Route 2 and take exit 60 for Lake Street toward East Arlington.
- Continue on Lake Street (signs for Belmont) for 0.4 miles. Turn left onto Pleasant Street.
- Stay on Pleasant Street for 1.9 miles. Take a sharp left onto Trapelo Road.
- In 450 feet, take a slight right onto Lexington Street, and continue for 0.2 miles.
- Turn right onto Sycamore Street and continue for 0.4 miles.
- Turn right onto Belmont Street and continue 375 feet.
- Continue onto Warren Street for 0.8 miles, then turn right onto Main Street.
- Take a left onto Gore Street, go straight at 4-way stop. You are now on Seyon Street. Turn right into parking lot.

Public Transportation Directions

Please visit the Google Maps website for the best public transportation options from your location.

Parking

There is ample free public parking at Repligen's headquarters.

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**REPLIGEN CORPORATION
C/O AMERICAN STOCK TRANSFER
59 MAIDEN LANE
NEW YORK, NY 10038**

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information. Vote by 11:59 P.M. ET on 05/14/2019. Have your proxy card in hand when you access the website and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

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

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions. Vote by 11:59 P.M. ET on 05/14/2019. Have your proxy card in hand when you call.

VOTE BY MAIL

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

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

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

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

The Board of Directors recommends you vote FOR the following:

1. Election of Directors

Nominees	For	Against	Abstain
1A Nicolas M. Barthelemy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1B Glenn L. Cooper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1C John G. Cox	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1D Karen A. Dawes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1E Tony J. Hunt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1F Glenn P. Muir	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1G Thomas F. Ryan, Jr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Board of Directors recommends you vote FOR proposals 2 and 3.

2 To ratify the selection of Ernst & Young LLP as independent registered public accountants for fiscal year 2019.

3 Advisory vote to approve the compensation paid to Repligen Corporation's named executive officers.

NOTE: The Board will consider and act upon any other business which may properly come before the meeting. THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED IN THE MANNER DIRECTED HEREIN BY THE STOCKHOLDER OF RECORD. IF NO DIRECTION IS MADE, THIS PROXY WILL BE VOTED "FOR" PROPOSALS 1, 2 and 3.

For address change/comments, mark here.
(see reverse for instructions)

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

--	--

Signature [PLEASE SIGN WITHIN BOX]

Date

--	--

Signature (Joint Owners)

Date

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Dear Stockholder:

Please take note of the important information enclosed with this Proxy.

Your vote counts, and you are strongly encouraged to exercise your right to vote these shares.

Please mark the boxes on the proxy card to indicate how these shares will be voted. Then, please sign the card, detach it and return your proxy in the enclosed postage-paid envelope. Thank you in advance for your prompt consideration of this matter.

Sincerely,

Repligen Corporation

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

**REPLIGEN CORPORATION
SOLICITED BY THE BOARD OF DIRECTORS
FOR THE ANNUAL MEETING OF STOCKHOLDERS**

The undersigned hereby appoints Tony J. Hunt and Jon K. Snodgres, and each of them alone, proxies with full power of substitution, to vote all shares of common stock of the Corporation which the undersigned is entitled to vote at the Annual Meeting of Stockholders of Repligen Corporation to be held on the 15th day of May, 2019 at 8:00 a.m., local time, at the offices of Repligen Corporation, 41 Seyon Street, Building 1, Suite 100, Waltham, MA 02453, and any adjournments or postponements thereof, upon matters set forth in the Notice of Annual Meeting of Stockholders and Proxy Statement dated April 18, 2019, copies of which have been received by the undersigned. The proxies are further authorized to vote, in accordance with their judgment, upon such other business as may be properly presented at the meeting and any adjournments or postponements thereof.

Address change/comments:

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

Continued and to be signed on reverse side