

MOMENTA PHARMACEUTICALS, INC.
301 Binney Street
Cambridge, Massachusetts 02142

April 26, 2019

To Our Stockholders:

You are cordially invited to attend the 2019 Annual Meeting of Stockholders of Momenta Pharmaceuticals, Inc. to be held at 10:30 a.m., Eastern time, on Wednesday, June 19, 2019, at the Marriott Hotel, 50 Broadway, Cambridge, Massachusetts 02142.

The Notice of Meeting and Proxy Statement on the following pages describe the matters to be presented at the meeting.

It is important that your shares be represented at this meeting to assure the presence of a quorum. Whether or not you plan to attend the meeting, we hope that you will have your stock represented by voting your shares over the Internet or by telephone as provided in the instructions set forth on the enclosed proxy card, or by completing, signing, dating and returning your proxy in the enclosed envelope, *as soon as possible*. Your stock will be voted in accordance with the instructions you have given in your proxy.

Thank you for your continued support.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig A. Wheeler", with a long horizontal flourish extending to the right.

Craig A. Wheeler
President and Chief Executive Officer



MOMENTA PHARMACEUTICALS, INC.
301 Binney Street
Cambridge, Massachusetts 02142

NOTICE OF 2019 ANNUAL MEETING OF STOCKHOLDERS

To Be Held on June 19, 2019

To Our Stockholders:

NOTICE IS HEREBY GIVEN that the 2019 Annual Meeting of Stockholders of Momenta Pharmaceuticals, Inc., or the Annual Meeting, will be held on Wednesday, June 19, 2019, at 10:30 a.m., Eastern time, at the Marriott Hotel, 50 Broadway, Cambridge, Massachusetts 02142. At the Annual Meeting, stockholders will consider and vote on the following matters:

1. to elect Steven C. Gilman, Thomas P. Koestler and Elizabeth Stoner to our board of directors to serve as Class III directors, each for a term of three years;
2. to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019;
3. to approve, on an advisory (non-binding) basis, the compensation of our named executive officers; and
4. to approve the amendment and restatement of the Momenta Pharmaceuticals, Inc. 2013 Incentive Award Plan, which, among other things, increases the number of shares authorized for issuance by 4,000,000 shares.

The stockholders will also act on any other business that may properly come before the Annual Meeting or any postponement, continuation or adjournment thereof.

Stockholders of record at the close of business on Tuesday, April 23, 2019, are entitled to notice of, and to vote at, the Annual Meeting or any postponement, continuation or adjournment thereof. Your vote is important regardless of the number of shares you own.

We hope that all stockholders will be able to attend the Annual Meeting in person. However, to ensure that a quorum is present at the Annual Meeting, please vote your shares over the Internet or by telephone as provided in the instructions set forth on the enclosed proxy card, or complete, date, sign and promptly return the enclosed proxy card whether or not you expect to attend the Annual Meeting. A postage-prepaid envelope, addressed to Broadridge Financial Solutions, which is serving as proxy tabulator, has been enclosed for your convenience. If you attend the Annual Meeting in person, your proxy will, upon your written request, be returned to you and you may vote your shares in person.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "AJC", is written over a horizontal line.

Alejandra Carvajal
Secretary

Cambridge, Massachusetts
April 26, 2019

Table of Contents

	<u>Page</u>
General Information About Voting	1
Proposal One—Election of Directors	4
Momenta’s Corporate Governance	12
Executive Compensation	21
Director Compensation	54
Security Ownership of Certain Beneficial Owners and Management	56
Equity Compensation Plan Information	60
Certain Relationships and Related Transactions	61
Proposal Two—Ratification of Appointment of Independent Registered Public Accounting Firm	63
Proposal Three—Advisory Vote on Executive Compensation	65
Proposal Four—Approval of Amendment and Restatement of Momenta Pharmaceuticals, Inc. 2013 Incentive Award Plan	66
Additional Information	81
Exhibit A—Momenta Pharmaceuticals, Inc. 2013 Incentive Award Plan (as amended and restated)	A-1



**MOMENTA PHARMACEUTICALS, INC.
301 BINNEY STREET
CAMBRIDGE, MASSACHUSETTS 02142**

PROXY STATEMENT

*For the 2019 Annual Meeting of Stockholders
To Be Held on Wednesday, June 19, 2019*

GENERAL INFORMATION ABOUT VOTING

This proxy statement and the enclosed proxy card are being furnished in connection with the solicitation of proxies by the board of directors of Momenta Pharmaceuticals, Inc., also referred to in this proxy statement as the “Company”, “Momenta”, “we” or “us”, for use at the 2019 Annual Meeting of Stockholders to be held on Wednesday, June 19, 2019, at 10:30 a.m., Eastern time, at the Marriott Hotel, 50 Broadway, Cambridge, Massachusetts 02142, and at any postponement, continuation or adjournment thereof. You may obtain directions to the location of the Annual Meeting by contacting Alejandra Carvajal, Secretary, Momenta Pharmaceuticals, Inc., 301 Binney Street, Cambridge, Massachusetts 02142, telephone: (617) 491-9700.

Our 2018 Annual Report to Stockholders for the fiscal year ended December 31, 2018 is being mailed to stockholders with the mailing of these proxy materials on or about May 1, 2019.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders To Be Held on June 19, 2019:

This proxy statement and our 2018 Annual Report on Form 10-K to Stockholders are available for viewing, printing and downloading at <http://ir.momentapharma.com/financial-information/annuals-and-proxies>.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 as filed with the Securities and Exchange Commission, except for exhibits, will be furnished without charge to any stockholder upon request to Momenta Pharmaceuticals, Inc., 301 Binney Street, Cambridge, Massachusetts 02142, Attention: Alejandra Carvajal, facsimile: (617) 621-0431, by calling (617) 491-9700 or is available on our website at <http://ir.momentapharma.com/financial-information/annuals-and-proxies>.

Momenta’s Voting Securities

Holders of record of our common stock at the close of business on Tuesday, April 23, 2019, will be entitled to notice of, and to vote at, the Annual Meeting or any postponement, continuation or adjournment of the Annual Meeting. On that date, 98,611,279 shares of our common stock were issued and outstanding. Each share of common stock entitles the holder thereof to one vote with respect to all matters submitted to stockholders at the Annual Meeting. We have no other securities entitled to vote at the Annual Meeting.

Voting Your Shares

If you are the record holder of your shares, you may vote in one of four ways. You may vote by submitting your proxy over the Internet, by telephone, or by mail or you may vote in person at the Annual Meeting. A 16-digit control number that is provided on the enclosed proxy card is needed for voting over the telephone or Internet.

You may vote over the Internet. If you have Internet access, you may vote your shares from any location in the world by following the “Vote by Internet” instructions set forth on the enclosed proxy card.

You may vote by telephone. You may vote your shares by following the “Vote by Phone” instructions set forth on the enclosed proxy card.

You may vote by mail. You may vote by completing, dating and signing the proxy card that accompanies this proxy statement and promptly mailing it in the enclosed postage-prepaid envelope. You do not need to put a stamp on the enclosed envelope if you mail it in the United States.

You may vote in person. If you attend the Annual Meeting, you may vote by delivering your completed proxy card in person or you may vote by completing a ballot. Ballots will be available at the meeting.

If the shares you own are held in your bank or brokerage firm account in a fiduciary capacity (typically referred to as being held in “street name”), you can vote by following the directions provided to you by your bank or brokerage firm. If the shares you own are held in street name and you wish to vote in person at the Annual Meeting, you must obtain a “legal proxy” from the organization that holds your shares. A legal proxy is a written document that will authorize you to vote your shares held in street name at the Annual Meeting. Please contact the organization that holds your shares for instructions on how to obtain a legal proxy. You must bring a copy of the legal proxy to the Annual Meeting and present it with your ballot in order for your vote to be counted.

Your Voting Instructions

The shares represented by all valid proxies will be voted as specified in those proxies. If the shares you own are held in your name and you return a duly executed proxy without specifying how your shares are to be voted, they will be voted as follows in accordance with the recommendations of our board of directors:

- FOR the election of Steven C. Gilman, Thomas P. Koestler and Elizabeth Stoner as Class III directors;
- FOR the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm;
- FOR the approval, on an advisory (non-binding) basis, of the compensation of our named executive officers;
- FOR the approval of the amendment and restatement of the Momenta Pharmaceuticals, Inc. 2013 Incentive Award Plan; and
- in the discretion of the persons appointed as proxies on any other items that may properly come before the Annual Meeting.

If the shares you own are held in street name, the bank or brokerage firm, as the record holder of your shares, is required to vote your shares in accordance with your instructions. You should direct your broker how to vote the shares held in your account. Under applicable stock exchange rules, if you do not instruct your broker on how to vote your shares, your broker will be able to vote your shares

with respect to certain “routine” matters, but will not be allowed to vote your shares with respect to certain “non-routine” matters. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm is a routine matter. Each other proposal to be voted on at the Annual Meeting is a non-routine matter. A broker “non-vote” occurs when a broker submits a proxy form but declines to vote on a particular matter because the broker has not received voting instructions from the beneficial owner.

Revoking Your Proxy or Changing Your Vote

Voting over the Internet or by telephone or execution of a proxy will not in any way affect a stockholder’s right to attend the Annual Meeting and vote in person. A proxy may be revoked before it is used to cast a vote. If the shares you own are held in your name, you can revoke a proxy by doing one of the following:

- file with our Secretary, at or before the taking of the vote at the Annual Meeting, a written notice of revocation bearing a later date than the proxy;
- duly execute a later-dated proxy relating to the same shares and deliver it to our Secretary before the taking of the vote; or
- attend the Annual Meeting and vote in person. However, your attendance at the Annual Meeting will not automatically revoke your proxy unless you vote again at the Annual Meeting.

Any written notice of revocation or subsequent proxy should be sent to us at the following address: Momenta Pharmaceuticals, Inc., 301 Binney Street, Cambridge, MA 02142, Attention: Alejandra Carvajal, Secretary.

If the shares you own are held in street name, you will need to follow the directions provided to you by your bank or brokerage firm to change your vote.

Votes Required

The presence in person or representation by proxy of the holders of a majority of the shares of common stock issued and outstanding and entitled to vote at the Annual Meeting is necessary to establish a quorum for the transaction of business. If a quorum is not present, the Annual Meeting will be adjourned until a quorum is obtained.

The proposal regarding the election of directors requires, for each director nominee, that the votes cast for such nominee exceed the votes cast against such nominee. This means that each of the director nominees for election at our Annual Meeting must receive more “FOR” votes than “AGAINST” votes in order to be elected as a Class III director. The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm, the approval, on an advisory (non-binding) basis, of the compensation of our named executive officers, and the approval of the amendment and restatement of the Momenta Pharmaceuticals, Inc. 2013 Incentive Award Plan, each require the approval of a majority in voting power of the votes cast affirmatively or negatively by the holders entitled to vote on the proposal. The votes will be counted, tabulated and certified by a representative of Broadridge Financial Solutions, the Company’s inspector of elections for the Annual Meeting.

Counting of Votes

Abstentions and broker non-votes are included in the shares present or represented at the Annual Meeting for purposes of determining whether a quorum is present. With respect to the election of directors, abstentions and broker non-votes will not affect the voting results. With respect to the proposal regarding the ratification of the appointment of the Company’s independent registered public accounting firm, abstentions will not affect the voting results. Because brokers have discretionary authority to vote on the ratification of the independent registered public accounting firm, we do not expect any broker non-votes in connection with the ratification. With respect to all other proposals to be voted on at the Annual Meeting, abstentions and broker non-votes will not affect the voting results.

**PROPOSAL ONE—
ELECTION OF DIRECTORS**

Board Recommendation

The board of directors recommends a vote FOR the election of each of Steven C. Gilman, Thomas P. Koestler and Elizabeth Stoner as Class III directors.

We have three classes of directors, currently consisting of three Class I directors, three Class II directors and three Class III directors. At each annual meeting, directors are elected for a term expiring on the date of the third annual meeting following the annual meeting at which they are elected. The terms of the three classes are staggered in a manner so that only one class is elected by stockholders annually. Steven C. Gilman, Thomas P. Koestler and Elizabeth Stoner are currently serving as Class III directors, and are being nominated by the Board for re-election as Class III directors at the Annual Meeting. The Class III directors elected this year will serve as members of our board of directors until the 2022 annual meeting of stockholders and until their respective successors are elected and qualified or their earlier death, resignation or removal.

In accordance with our corporate governance guidelines, if any of the directors nominated for re-election at the Annual Meeting fail to receive more votes cast “FOR” his or her re-election than “AGAINST” his or her re-election, such director must promptly tender his or her resignation for the board of directors’ consideration. Our nominating and corporate governance committee or a committee of independent directors designated by our board of directors will then make a recommendation to our board of directors to accept or reject the tendered resignation. Our board of directors will have 90 days from the date the election results from our Annual Meeting are certified to notify the resigning director of its decision. Our board of directors may consider all relevant factors in making its decision, including any stated reasons for “AGAINST” votes, whether the underlying cause of the “AGAINST” votes are curable, the length of service and contributions to the Company of the resigning director, and whether the resignation would cause us to fail to comply with any applicable rules or requirements, would lead to a “change of control” as determined pursuant to any financing or other material agreement, or would cause us to default under any material agreements. If the resigning director’s tendered resignation is not accepted or the director does not otherwise submit his resignation, such director will continue to serve on our board of directors until his successor is duly elected and qualified, or his earlier resignation or removal. If the resigning director’s tendered resignation is accepted by our board of directors, then our board of directors, in its sole discretion, may fill any resulting vacancy or decrease the size of the board in accordance with our bylaws.

The persons named in the enclosed proxy card will vote as directed on the proxy card (or through the Internet or telephonic voting) or, if you return a duly executed proxy card without specifying how your shares are to be voted, the persons named in the enclosed proxy card will vote to elect Drs. Gilman, Koestler and Stoner as Class III directors. Drs. Gilman, Koestler and Stoner currently serve on our board of directors. The nominees have indicated their willingness to continue to serve if elected. However, if any director nominee should be unable to serve, or for good cause will not serve, the shares of common stock represented by proxies may be voted for a substitute nominee designated by our board of directors, or our board of directors may reduce its size. Our board of directors has no reason to believe that any of the nominees will be unable to serve if elected.

No director, nominee for election as a director or executive officer is related by blood, marriage or adoption to any other director, nominee for election as a director or executive officer. No arrangements or understandings exist between any director or nominee for election as a director and any other person pursuant to which such person is to be selected as a director or nominee for election as a director.

Our Board of Directors

The biographies of each of our current Class I and Class II directors and the three Class III directors, who are also our Class III director nominees, are below. Each of the biographies also highlights specific experience, qualifications, attributes and skills that led our board of directors to conclude that such person should serve as a director. We also believe that all of our director nominees have a reputation for integrity, honesty and adherence to high ethical standards and have each demonstrated business acumen and an ability to exercise sound judgment, as well as a commitment of service to our Company and our board of directors.

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships</u>
Class III directors nominees to be elected at the 2019 Annual Meeting (if elected, terms to expire in 2022)			
Steven C. Gilman(2)(4)	66	2016	Steven C. Gilman, Ph.D., has been a director since June 2016. From March 2016 to April 2019, Dr. Gilman served as the chief executive officer of ContraFect Corporation, a publicly traded biotechnology company. Until 2015, he served as the executive vice president, Research & Development and chief scientific officer at Cubist Pharmaceuticals, a biopharmaceutical company, until its acquisition by Merck & Co. In addition to his service on ContraFect Corporation's board of directors, where he served as chairman of the board of directors from May 2015 to April 2019, and currently serves as vice chairman, Dr. Gilman currently serves on the boards of directors of publicly traded biotechnology companies, Akebia Therapeutics, Inc., serving on the research and development committee, SCYNEXIS Inc., serving on the nominating and corporate governance and audit committees, and Vericel Corporation, serving on the compensation committee. Dr. Gilman served on the board of directors of Keryx Biopharmaceuticals, Inc. until its merger with Akebia in December 2018. Dr. Gilman received his Ph.D. and M.S. degrees in microbiology from Pennsylvania State University, his post-doctoral training at Scripps Clinic and Research Foundation, and a B.A. in microbiology from Miami University of Ohio. Dr. Gilman's qualifications to sit on our board of directors include his leadership experience in the biopharmaceutical industry, including his senior executive positions at ContraFect and Cubist and his experience serving on other boards of directors in the biotechnology industry.

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships</u>
Thomas P. Koestler(2)(4)	67	2011	<p>Thomas P. Koestler, Ph.D., has been a director since January 2011. Since January 2019, Dr. Koestler has served as a venture partner of Vatera Healthcare Partners LLC. From February 2010 to December 2018, Dr. Koestler served as an executive director of Vatera Holdings LLC. Previously, Dr. Koestler was executive vice president of Schering-Plough Corporation, a pharmaceutical company, and president of Schering-Plough Research Institute, the pharmaceutical research and development arm of Schering-Plough Corporation, which he joined in 2003. Dr. Koestler has also held senior positions at Pharmacia Corporation, Novartis AG, Ortho-McNeil and Bristol-Myers Squibb. Dr. Koestler is also a member of the board of directors of Melinta Therapeutics, a publicly traded biopharmaceutical company, including serving on the nominating and corporate governance and compensation committees, and of a privately-held company. Dr. Koestler holds a B.S. degree in biology and genetics from Daemen College and a Ph.D. from the State University of New York, where he studied medicine and pathology. Dr. Koestler's qualifications to sit on our board of directors include his years of senior executive experience in the pharmaceutical industry, including his involvement with over 80 product approvals during his career, including 30 related to new molecular entities.</p>

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships</u>
Elizabeth Stoner(3)(4)	68	2007	<p>Elizabeth Stoner, M.D., has been a director since October 2007. Since September 2012, Dr. Stoner has been the chief development officer at Vascular Pharmaceuticals, Inc., a biotechnology company. From 2010 to 2014, Dr. Stoner was the chief development officer of Rhythm Pharmaceuticals, and since December 2014, she has been a member of Rhythm’s Scientific Advisory Board. Since October 2007, Dr. Stoner has served as a managing director at MPM Capital, a healthcare venture capital firm. Prior to joining MPM Capital, Dr. Stoner had a distinguished 22-year career at Merck Research Laboratories. At the time of her retirement from Merck, Dr. Stoner was senior vice president of Global Clinical Development Operations with responsibility for the company’s clinical development activities in more than 40 countries, including Merck’s Japanese subsidiary. Prior to her position at Merck, she was an assistant professor of Pediatrics at Cornell University Medical College. Dr. Stoner served on the board of Radius Health, Inc. from 2011 to 2015. Dr. Stoner received her B.S. in Chemistry from Ottawa University, KS, her M.S. in Chemistry from the State University of New York at Stony Brook, and her M.D. from Albert Einstein College of Medicine. Dr. Stoner’s qualifications to sit on our board of directors include her more than 20 years of senior executive experience in the pharmaceutical industry, including her expertise in leading clinical development organizations.</p>

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships</u>
Class I directors (terms to expire in 2020)			
Bruce L. Downey(1)(2)	71	2009	Bruce L. Downey has been a director since June 2009 and has served as chairman of our board of directors since June 2018. Mr. Downey has served as a partner at NewSpring Capital, a venture capital firm, since April 2009. Previously, Mr. Downey was chairman and chief executive officer of Barr Pharmaceuticals, Inc., a global specialty pharmaceutical company that operated in more than 30 countries worldwide and was acquired by Teva Pharmaceutical Industries Ltd. in 2008. Mr. Downey is a member of the board of directors of Melinta Therapeutics and Cardinal Health, Inc., serving at Cardinal on the audit and nominating and corporate governance committees, as well as privately held companies. Mr. Downey graduated with honors from Miami University in 1969 and received his law degree, cum laude, from Ohio State University. Mr. Downey's qualifications to sit on our board of directors include his significant experience serving as a chief executive officer of a global generic pharmaceutical company that also had a substantial brand business and an active biologics research and development program, his years serving as a lawyer in private practice and his experience serving on other boards of directors in the biopharmaceutical industry.
Corey N. Fishman(1)(3)	54	2016	Corey N. Fishman has been a director since September 2016. Mr. Fishman has served as chief executive officer and director of Iterum Therapeutics Limited, a biopharmaceutical company, since 2015. From 2010 to 2015, he served as chief financial officer and chief operating officer of Durata Therapeutics, Inc., a pharmaceutical company, where he managed a successful IPO and secondary offering, and led the negotiation and sale of Durata to Actavis plc. Prior to Durata, Mr. Fishman served as chief financial officer of Ganic Pharmaceuticals, Inc., a pharmaceutical company, and served in several other leadership roles, including chief financial officer, at Meda Pharmaceuticals, formerly MedPointe, a pharmaceutical company. Mr. Fishman holds a B.A. in Economics from the University of Illinois at Urbana-Champaign and an M.S.M. in Finance from Purdue University. Mr. Fishman's qualifications to sit on the board include his experience with public and financial accounting matters, and his senior executive experience at companies within the biopharmaceutical industry.

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships</u>
Georges Gemayel(1)(3)	59	2016	<p>Georges Gemayel, Ph.D., has been a director since January 2016. Since 2010, he has served as a consultant for several biotechnology companies and venture capital funds. From February 2011 to December 2012, Dr. Gemayel served as executive chairman of Syndexa Pharmaceuticals Corp., a privately held drug development company. Prior to that, in 2010, Dr. Gemayel served as executive chairman of FoldRx Pharmaceuticals, Inc. until its acquisition by Pfizer Inc. From June 2008 until November 2009, Dr. Gemayel served as president and chief executive officer of Altus Pharmaceuticals Inc., a publicly traded pharmaceutical company. In November 2009, while Dr. Gemayel was president, chief executive officer and a director, Altus Pharmaceuticals Inc. filed a voluntary petition for relief under Chapter 7 of the U.S. Bankruptcy Code and ceased operations at such time. Dr. Gemayel received his doctorate in pharmacy from St. Joseph University in Beirut, Lebanon, and his Ph.D. in pharmacology from Paris-Sud University in Paris, France. Dr. Gemayel currently serves as chairman of the boards of directors of several privately held companies, and on the boards of directors of Orphazyme ApS, serving as chairman of the board of directors and Supernus Pharmaceuticals, Inc., serving on the nominating and corporate governance and audit committees, both of which are publicly traded biotechnology companies. He was previously a director of publicly traded biotechnology companies, Dimension Therapeutics, Inc., which was acquired by Ultragenyx Pharmaceuticals, Inc., Raptor Pharmaceuticals, Inc., which was acquired by Horizon Pharma plc, Adolor Corporation, which was acquired by Cubist Pharmaceuticals, Inc., Prosensa Holding N.V., which was acquired by BioMarin Pharmaceutical Inc. and NPS Pharmaceuticals, Inc., which was acquired by Shire plc. Dr. Gemayel's qualifications to sit on our board of directors include his over 25 years of experience in the biopharmaceutical industry, including management and executive positions.</p>

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships</u>
Class II directors (terms to expire in 2021)			
James R. Sulat(1)(3)	68	2008	James R. Sulat has been a director since June 2008 and served as chairman of our board of directors from December 2008 to June 2018. From October 2009 to June 2013, Mr. Sulat served as the chief executive officer and chief financial officer of Maxygen, Inc., a publicly traded biopharmaceutical company. Mr. Sulat is on the boards of directors of publicly traded biotechnology companies, Valneva SE, serving on the audit committee, AMAG Pharmaceuticals, Inc., serving on the audit committee, and Arch Therapeutics, Inc. During the last five years, Mr. Sulat served as a director of Maxygen, Inc. and Diadexus, Inc., both publicly traded biotechnology companies. Mr. Sulat received a B.S. in Administrative Sciences from Yale University, and an M.B.A. and an M.S. in Health Services Administration from Stanford University. Mr. Sulat's qualifications to sit on our board of directors include his experience with public and financial accounting matters, his senior executive experience at companies within the biopharmaceutical industry and his experience serving on other boards of directors in the biopharmaceutical industry.
Craig A. Wheeler	58	2006	Craig A. Wheeler has served as our president and a director since August 2006 and was appointed our chief executive officer effective September 2006. Prior to joining Momenta, Mr. Wheeler served as president of Chiron Biopharmaceuticals, a division of Chiron Corporation, a biotechnology company, from August 2001 until June 2006. Mr. Wheeler serves on the board of Amicus Therapeutics, Inc., including serving on the science and compensation committees. Mr. Wheeler served as a director of Avanir Pharmaceuticals, Inc., which was acquired by Otsuka Pharmaceuticals Co., Ltd., from September 2005 to January 2015, including serving on the corporate governance and audit committees, and serving as chairman of the board beginning May 2007. Mr. Wheeler has been a member of the board of the Association for Accessible Medicines, formerly known as the Generic Pharmaceutical Association, for over eight years, including serving as chairman of the board from 2014 to 2016 and as a member of the executive committee for the past six years. Mr. Wheeler received B.S. and M.S. degrees in chemical engineering from Cornell University and an M.B.A. degree from the Wharton School of the University of Pennsylvania. Mr. Wheeler's qualifications to sit on our board of directors include his years of senior executive management experience in the biotechnology industry, including over ten years as our president and chief executive officer, and his experience serving on other boards of directors in the biotechnology industry.

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships</u>
Jose-Carlos Gutiérrez-Ramos(2)(4)	56	2016	Jose-Carlos Gutiérrez-Ramos, Ph.D., has served as a director since March 2016. Since August 2018, he has served as chief executive officer and president of Cogen Therapeutics Inc., a biotechnology company. From 2015 to May 2018, he served as chief executive officer and president of Synlogic, Inc., a pharmaceutical company. Prior to joining Synlogic, Dr. Gutiérrez-Ramos was group senior vice president of Worldwide Research and Development and global head of Biotherapeutics Research and Development at Pfizer Inc., a pharmaceutical company, from 2010 to 2015. Dr. Gutiérrez-Ramos received a B.S. from Universidad Complutense de Madrid and his Ph.D. in immunochemistry from the Universidad Autonoma de Madrid. Dr. Gutiérrez-Ramos' qualifications to sit on our board of directors include his senior executive experience in the pharmaceutical industry, including his significant experience in research and development.

-
- (1) Member of audit committee.
 - (2) Member of compensation committee.
 - (3) Member of nominating and corporate governance committee.
 - (4) Member of the science committee.

For information relating to compensation of our directors, including shares of our common stock owned by and options granted to each of our directors, see the disclosure set forth under the headings “Director Compensation” and “Security Ownership of Certain Beneficial Owners and Management.”

MOMENTA'S CORPORATE GOVERNANCE

General

We believe that good corporate governance is important to ensure that Momenta is managed for the long-term benefit of our stockholders. We continuously review our corporate governance policies and practices, and compare them to those suggested by various authorities in corporate governance and the practices of other public companies.

This section describes key corporate governance practices that we have adopted, including the criteria we use in selecting director nominees, our board leadership structure and certain responsibilities and activities of the board of directors and its committees. Complete copies of our corporate governance guidelines, committee charters and code of conduct described below are available on the “Investors—Corporate Governance” section of our website at www.momentapharma.com. Alternatively, you may request a copy of any of these documents by writing to Momenta Pharmaceuticals, Inc., 301 Binney Street, Cambridge, Massachusetts 02142, Attention: Alejandra Carvajal, Secretary, fax: (617) 621-0431.

Corporate Governance Guidelines

Our board of directors has adopted corporate governance guidelines to assist our directors in the exercise of their duties and responsibilities and to serve the best interests of Momenta and its stockholders. These guidelines, which provide a framework for the conduct of the board of directors' business, provide, among other things, that:

- the principal responsibility of the directors is to oversee the management of Momenta;
- a majority of the members of the board of directors must be independent directors;
- the independent directors will meet periodically in executive session;
- directors have full and free access to management and, as necessary and appropriate, independent advisors;
- new directors will participate in an orientation program and all directors are expected to participate in continuing director education funded by the Company on an ongoing basis; and
- at least annually the board of directors and its committees will conduct a self-evaluation to evaluate whether they are functioning effectively.

Board Determination of Independence

Under applicable Nasdaq rules, a director will only qualify as an “independent director” if, in the opinion of our board of directors, that person does not have a relationship which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Our board of directors has determined that none of Bruce L. Downey, Corey N. Fishman, Georges Gemayel, Steven C. Gilman, Jose-Carlos Gutiérrez-Ramos, Thomas P. Koestler, Elizabeth Stoner and James R. Sulat has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is an “independent” director as that term is defined under applicable Nasdaq rules. Craig A. Wheeler is not an independent director under the Nasdaq rules due to his employment as our chief executive officer and president.

Board Leadership Structure

Our board separated the positions of chairman of the board and chief executive officer in 2005. Separating these positions allows our chief executive officer to focus on our day-to-day business, while allowing the chairman of the board to lead the board in its fundamental role of providing advice

to and independent oversight of management and corporate governance. The board recognizes the time, effort, and energy that the chief executive officer is required to devote to his position, and further recognizes the commitment required to serve as chairman of the board, particularly as the board's oversight responsibilities continue to grow. While our by-laws and corporate governance guidelines do not require that our chairman and chief executive officer positions be separate, the board believes that our practice of having separate positions and having an independent outside director serve as chairman is the appropriate leadership structure for the Company at this time. However, in the event that in the future the chairman of the board is not an independent director, our corporate governance guidelines provide that the nominating and corporate governance committee may nominate an independent director to serve as "Lead Director" who would be approved by a majority of the independent directors.

The Board's Role in Risk Oversight

Our board of directors administers its risk oversight function directly and through our board committees. The audit committee's role in the risk oversight process includes receiving regular reports from our compliance officer, who oversees our compliance program, members of senior management on our compliance committee who have functional compliance responsibility, and other members of senior management on areas of material risk to us, including operational, financial, legal, regulatory, strategic, cyber and reputational risks. The audit committee receives these reports from the appropriate compliance "risk owner" within the Company to enable the audit committee to understand our risk identification, risk management and risk mitigation strategies. The chair of the audit committee reports on these discussions to the full board during each regularly-scheduled board meeting. The compensation committee assists the board in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs. The nominating and governance committee assists the board in fulfilling its oversight responsibilities with respect to corporate enterprise risk management as well as the management of risks associated with board organization, membership and structure, succession planning for our directors and executive officers, corporate governance, and potential legal issues that may impact the Company, and also by reviewing the code of business conduct and ethics which creates a foundation for our compliance program. Our board of directors does not believe that its role in the oversight of our risks affects the board's leadership structure.

Board Meetings and Attendance

Our board of directors met 18 times during the fiscal year ended December 31, 2018, either in person or by teleconference. During 2018, each director attended at least 75% of the aggregate of the total number of board meetings and committee meetings on which she or he then served.

Director Attendance at Annual Meetings of Stockholders

Our corporate governance guidelines provide that directors are expected to attend the annual meeting of stockholders. All of our then-current directors attended the 2018 annual meeting of stockholders.

Board Committees

Our board of directors has established four standing committees—audit, compensation, nominating and corporate governance and science—each of which operates under a charter that has been approved by our board of directors. Current copies of the audit, compensation, nominating and corporate governance and science committee charters are posted on the "Investors—Corporate Governance" section of our website located at www.momentapharma.com.

Our board of directors has determined that all of the members of each of the audit, compensation and nominating and corporate governance committees are independent as defined under applicable Nasdaq rules, including, in the case of all members of the audit committee, the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and, in the case of all members of the compensation committee, the Nasdaq rules specific to the independence of compensation committee members.

Audit Committee

The audit committee currently consists of Bruce L. Downey, Corey N. Fishman, Georges Gemayel and James R. Sulat. Mr. Fishman chairs the audit committee. The audit committee held 9 meetings in 2018. Our audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including the receipt and consideration of reports from the firm;
- reviewing and discussing with management our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting and disclosure controls and procedures;
- discussing and monitoring our corporate compliance program and financial and accounting risk management policies;
- establishing procedures for the receipt and retention of accounting related complaints and concerns;
- meeting with management and independently with our independent registered public accounting firm;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by Securities and Exchange Commission rules, which is included below under "Report of the Audit Committee."

Our board of directors has determined that each of Bruce L. Downey, Corey N. Fishman and James R. Sulat is an "audit committee financial expert" as defined by applicable Securities and Exchange Commission rules.

Compensation Committee

The compensation committee currently consists of Bruce L. Downey, Steven C. Gilman, Jose-Carlos Gutiérrez-Ramos and Thomas P. Koestler. Dr. Koestler chairs the compensation committee. The compensation committee held 10 meetings in 2018. Our compensation committee's responsibilities include:

- reviewing and approving, or recommending for board approval, the compensation of our chief executive officer and our other executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our equity incentive plans;
- reviewing and making recommendations to the board of directors with respect to director compensation;

- reviewing and discussing annually with management our “Compensation Discussion and Analysis,” which is included below; and
- preparing the compensation committee report required by Securities and Exchange Commission rules, which is included below under “Compensation Committee Report.”

The compensation committee may delegate its authority to one or more subcommittees as it deems appropriate. The processes and procedures followed by our compensation committee in considering and determining executive compensation are described below under the heading “Executive Compensation Processes.”

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee currently consists of Corey N. Fishman, Georges Gemayel, Elizabeth Stoner and James R. Sulat. Dr. Gemayel chairs the nominating and corporate governance committee. The nominating and corporate governance committee held 4 meetings in 2018. Our nominating and corporate governance committee’s responsibilities include:

- identifying individuals qualified to become board members;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board’s committees;
- monitoring and assessing the independence of existing directors and all director nominees under applicable Nasdaq rules and in accordance with the Company’s corporate governance guidelines;
- overseeing an annual review by the board of directors with respect to management succession planning;
- reviewing and assessing our code of business conduct and ethics;
- overseeing our enterprise risk management program;
- reviewing and assessing the adequacy of the Company’s corporate governance principles; and
- overseeing an annual self-evaluation of the board of directors.

The processes and procedures followed by our nominating and corporate governance committee in identifying and evaluating director candidates are described below under the heading “Director Nomination Process.”

Science Committee

Our science committee currently consists of Steven C. Gilman, Jose-Carlos Gutiérrez-Ramos, Thomas P. Koestler, and Elizabeth Stoner. Dr. Stoner chairs the science committee. The science committee held 4 meetings in 2018. Our science committee’s responsibilities include:

- reviewing the scientific, clinical, regulatory and intellectual property strategies that underlie our major research and development programs;
- reviewing the annual research and development budget and allocation of resources to certain of our programs;
- reviewing the capability and skill set of the research and development organization; and
- reviewing the attainment of research and development milestones.

Compensation Committee Interlocks and Insider Participation

The compensation committee currently consists of Bruce L. Downey, Steven C. Gilman, Jose-Carlos Gutiérrez-Ramos, and Thomas P. Koestler, who serves as chair. No member of our compensation committee is or has been an officer or employee of the Company.

During 2018, none of our executive officers served as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or compensation committee.

Report of the Audit Committee

The audit committee has reviewed our audited consolidated financial statements for the fiscal year ended December 31, 2018 and has discussed these consolidated financial statements with our management and our independent registered public accounting firm. Management is responsible for the preparation of our consolidated financial statements and for maintaining an adequate system of disclosure controls and procedures and internal control over financial reporting for that purpose. Our independent registered public accounting firm is responsible for conducting an independent audit of our annual consolidated financial statements in accordance with generally accepted auditing standards and issuing a report on the results of their audit. The audit committee is responsible for providing independent, objective oversight of these processes.

The audit committee has also received from, and discussed with, our independent registered public accounting firm various communications that they are required to provide to the audit committee, including the matters required to be discussed by Public Company Accounting Oversight Board's Auditing Standard No. 1301, Communications with Audit Committees.

Our independent registered public accounting firm also provided the audit committee with the written disclosures and letter required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the audit committee concerning independence, and our audit committee has discussed with our independent registered public accounting firm its independence.

Based on the review and discussions referred to above, the audit committee recommended to our board of directors that the audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2018 for filing with the Securities and Exchange Commission.

By the Audit Committee of the Board of Directors of Momenta Pharmaceuticals, Inc.:

Corey N. Fishman (Chair)
Bruce L. Downey
James R. Sulat
Georges Gemayel

Executive Compensation Processes

We have implemented an annual performance review program for our employees, including our executives, with annual corporate goals that are proposed by management, reviewed by the compensation committee and approved by the board of directors. These corporate goals target the achievement of specified operational and financial goals; specific research, clinical, regulatory, commercial and/or compliance milestones; and business development and financing initiatives. Individual performance is evaluated in part by reviewing the extent to which an employee's performance facilitates the achievement of our annual corporate and business goals. Annual salary

adjustments, annual incentive cash bonus awards and equity awards for each of our chief executive officer, chief financial officer, and each of our three other most highly compensated executive officers are tied to a combination of achievement of corporate goals and individual performance.

The compensation committee has the authority to retain compensation consultants and other outside advisors to assist in the evaluation of executive officer compensation. To assist the compensation committee in discharging its responsibilities, since mid-2010, the compensation committee has retained Radford Survey and Consulting, an Aon Hewitt company, an independent compensation consultant that we refer to as Radford, to evaluate certain aspects of our compensation practices and assist the compensation committee with setting executive compensation.

For further information about our executive compensation, please see the “Executive Compensation—Compensation Discussion and Analysis” section below.

Director Nomination Process

The process followed by our nominating and corporate governance committee to identify and evaluate director candidates includes requests to board members for recommendations as well as use of a third-party professional search firm. The committee meets from time to time to evaluate biographical information and background material relating to potential candidates as well as to discuss the results of interviews of selected candidates by members of the nominating and corporate governance committee and other members of the board of directors.

In considering whether to recommend any particular candidate for inclusion in the board’s slate of director nominees, the nominating and corporate governance committee applies the criteria attached to its charter. These criteria include the candidate’s integrity, business acumen, commitment to understanding our Company and our industry, experience, diligence and the ability to act in the interests of all stockholders. The nominating and corporate governance committee also considers whether a candidate has any conflicts of interest that would impair his or her ability to represent the interests of our stockholders and to fulfill the responsibilities of a director. The criteria further specify that the value of diversity on the board should be considered by the nominating and corporate governance committee in the director identification and nomination process. While we do not have a formal policy on diversity, the nominating and corporate governance committee proactively seeks nominees with a broad diversity of experience, professions, skills, gender, race, national origin and backgrounds and considers such factors in evaluating prospective nominees. The nominating and corporate governance committee does not assign specific weights to particular criteria and no particular trait is a prerequisite for each prospective nominee. We believe that the backgrounds and qualifications of our directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the board of directors to fulfill its responsibilities. Nominees are not discriminated against on the basis of race, religion, national origin, gender, sexual orientation, disability or any other basis proscribed by law.

Stockholders may recommend individuals to the nominating and corporate governance committee for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than 5% of our common stock for at least a year as of the date such recommendation is made, to the nominating and corporate governance committee, c/o Alejandra Carvajal, Secretary, Momenta Pharmaceuticals, Inc., 301 Binney Street, Cambridge, Massachusetts 02142. Assuming that appropriate biographical and background material has been provided on a timely basis, the nominating and corporate governance committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Stockholders also have the right under our by-laws to directly nominate director candidates, without any action or recommendation on the part of the nominating and corporate governance committee or the board of directors, by following the procedures set forth in our by-laws that are described below under the heading “Additional Information—Stockholder Proposals.”

Stockholder Communications

Our board of directors will give appropriate attention to written communications that are submitted by stockholders and will respond if and as appropriate. The chairman of the board of directors (an independent director) or otherwise the chair of the nominating and corporate governance committee, subject to advice and assistance from the general counsel and secretary and, if requested, outside legal counsel, is primarily responsible for monitoring communications from stockholders and for providing copies of summaries of such communications to the other directors as he or she considers appropriate.

Under procedures approved by a majority of the independent directors, communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the chairperson of the board considers to be important for the directors to know. In general, communications relating to corporate governance and corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which we tend to receive repetitive or duplicative communications.

Stockholders who wish to send communications on any topic to the board of directors should address such communications to the board of directors c/o Alejandra Carvajal, Secretary, Momenta Pharmaceuticals, Inc., 301 Binney Street, Cambridge, Massachusetts 02142, fax: (617) 621-0431.

Code of Business Conduct and Ethics

Our written code of business conduct and ethics applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The code is intended to deter wrongdoing and to promote the conduct of all Company business in accordance with high standards of integrity and in compliance with all applicable laws and regulations. The code covers a wide range of professional conduct, including compliance with laws and regulations applicable to the conduct of our business, conflicts of interest, insider trading, the protection of confidential information, honest and ethical fair dealing, acceptance and giving of gifts and gratuities, accuracy of our books and records, concerns regarding accounting matters, dealings with our independent auditor, and reporting and compliance procedures.

Prohibition of Hedging or Pledging the Company’s Securities

Our Insider Trading Policy generally prohibits pledging and hedging activities by employees and directors with respect to Company securities. No employees or directors engage in pledging or hedging activities with respect to Company securities.

Succession Planning

Our management conducts formal succession planning for our chief executive officer and other executive officers, which is reviewed at least annually by the board of directors under the oversight of the nominating and corporate governance committee.

Our Executive Officers

The following table sets forth the names, ages and positions of our current executive officers:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Craig A. Wheeler*	58	President and Chief Executive Officer
Michelle Robertson	52	Chief Financial Officer and Treasurer
Anthony Manning, Ph.D.	57	Chief Scientific Officer
Santiago Arroyo, M.D., Ph.D.	59	Chief Medical Officer
Young Kwon	47	Chief Business Officer
Alejandra Carvajal	45	Chief Legal Officer, General Counsel and Secretary
Ian Fier	52	Chief Manufacturing and Program Officer
Jo-Ann Beltramello	51	Chief Human Resources and Infrastructure Officer

* Mr. Wheeler is a member of our board of directors. See “Proposal One—Election of Directors” for more information about Mr. Wheeler.

Michelle Robertson has been our Chief Financial Officer since October 2018. Ms. Robertson is responsible for the oversight of all finance, accounting and treasury functions. From May 2017 to October 2018, Ms. Robertson was our Vice President, Financial Planning and Analysis. Prior to joining Momenta, Ms. Robertson was Vice President, Oncology Finance for Baxalta, Inc., a biopharmaceutical company, following its spin-off from Baxter International in July 2015. From 2012 to 2015, Ms. Robertson served as Head of Financial Planning and Analysis and Operations Excellence at Ironwood Pharmaceuticals, Inc., and prior to that, held various leadership positions in the Oncology and Biosurgery divisions of Finance and Commercial Operations at Genzyme Corporation (now Sanofi Genzyme), a biotechnology company. Ms. Robertson received her B.S. in Finance and A.S. in Accounting and Management from Bentley University.

Anthony Manning, Ph.D. has been our Chief Scientific Officer since October 2018. He is responsible for research and driving the discovery of novel products. From January 2013 to October 2018, Dr. Manning served as our Senior Vice President, Research. Prior to joining Momenta, Dr. Manning was Vice President and Head of Immunology Research for Biogen, Inc., a multinational biotechnology company. Before that, he was Vice President and Global Head of Inflammation, Autoimmunity and Transplantation Research at Roche Pharmaceuticals. Dr. Manning is currently a member of the board of directors of Palatin Technologies, and is the Chairman of the non-profit Institute for Biomedical Entrepreneurship. Dr. Manning holds a Ph.D. from the University of Otago, New Zealand.

Santiago Arroyo, M.D., Ph.D. has been our Chief Medical Officer since October 2018. Dr. Arroyo is responsible for preclinical and clinical development and regulatory affairs. Prior to his appointment as Chief Medical Officer, he served as our Senior Vice President, Development and Chief Medical Officer from June 2017 to October 2018. Prior to joining Momenta, Dr. Arroyo was Chief Medical Officer of Boston Pharmaceuticals Inc. from October 2015 to May 2017. Prior to that, from 2010 to 2015, he was Senior Vice President, Head of Clinical Research and Chief Medical Officer of Biotherapeutics and Pharmatherapeutics at Pfizer Inc., a pharmaceutical company, in the areas of cardiovascular and metabolism, pain, neuroscience, regenerative medicine and rare diseases. From 2007 to 2010, Dr. Arroyo was Therapeutic Area Head for Neurosciences, Discovery Medicine and Clinical Pharmacology at Bristol-Myers Squibb, a pharmaceutical company, and, from 2004 to 2007, Neurology Global Therapeutic Area Head for Eisai Global Clinical Development, a division of Eisai Co. Ltd., a pharmaceutical company. Dr. Arroyo was an Instructor in Neurology at the Johns Hopkins Hospital in 1994 and Associate Professor of Neurology and Director of the Epilepsy Program at the Medical College of Wisconsin and Senior Specialist at the Hospital Clinic of Barcelona, Spain from 1994 to

2003. Dr. Arroyo received his M.D. from the Autonomous University of Madrid and his Ph.D. from the University of Barcelona, Spain.

Young Kwon has been our Chief Business Officer since October 2018. From August 2015 to October 2018, Dr. Kwon served as our Senior Vice President, Corporate Development and Strategy. From January 2011 to July 2015, Mr. Kwon served as our Vice President, Corporate Development and Strategy. Prior to joining us, Mr. Kwon was Senior Director of Business Development at Biogen Idec, where he led corporate development activities, including evaluation of mergers and acquisitions, joint ventures and other strategic transactions. Prior to that, he identified and invested in early-stage life science companies at Advanced Technology Ventures. Mr. Kwon received his B.S. from the Massachusetts Institute of Technology in 1994 and his Ph.D. in Biological Chemistry and Molecular Pharmacology from Harvard University in 1999.

Alejandra V. Carvajal has served as our Chief Legal Officer and General Counsel since October 2018. Ms. Carvajal is responsible for all legal matters and operations at the Company. From June 2017 to October 2018, Ms. Carvajal served as our Vice President, Deputy General Counsel. Prior to joining Momenta, Ms. Carvajal was Vice President and General Counsel of Cerulean Pharma Inc., a public biotechnology company, from September 2014 to June 2017. Prior to Cerulean, Ms. Carvajal worked at Millennium: The Takeda Oncology Company from 2004 to 2014, where she held a variety of legal positions of increasing seniority. Ms. Carvajal began her legal career in private practice with the law firms of Day, Berry & Howard and Hill & Barlow. Ms. Carvajal received a B.A. cum laude from Harvard University and a J.D. cum laude from The Georgetown University Law Center.

Ian D. Fier has been our Chief Manufacturing and Program Officer since October 2018. Mr. Fier is responsible for overseeing our process development and quality functions, manufacturing, and program management. From October 2002 to October 2018, Mr. Fier served as our Senior Vice President, Program Alliance and Leadership. Prior to joining Momenta, he was Vice President of Clinical Affairs at BioTransplant Inc., a company that develops pharmaceuticals and organ-transplantation systems. Prior to that, he held positions in product development and project management at Hoechst-Roussel (now Sanofi Aventis), Astra USA and The Medicines Company. Mr. Fier received his B.S. from Tufts University and a M.B.A. in Health Care Management from Boston University.

Jo-Ann Beltramello has served as our Chief Human Resources and Infrastructure Officer since October 2018. Ms. Beltramello is responsible for all human resources, IT, and site services for the Company. From October 2007 to 2018, Ms. Beltramello served as our Senior Vice President, Human Resources. Prior to joining Momenta, she was the Chief Human Resources Officer at Multiplan, a provider of health care cost management solutions. Prior to Multiplan, she held senior human resources roles at Private Healthcare Systems, Inc., Oxford Global Resources, Inc., and Randstad North America. Ms. Beltramello received her B.S. from Bentley University.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

The following discussion provides information regarding compensation earned by the following executive officers during 2018:

- Craig A. Wheeler, our President and Chief Executive Officer,
- Michelle Robertson, our Chief Financial Officer,
- Scott M. Storer, our former Senior Vice President, Chief Financial Officer and Treasurer,
- Santiago Arroyo, M.D., Ph.D., our Senior Vice President, Development and Chief Medical Officer,
- Young Kwon, Ph.D., our Chief Business Officer, and
- Anthony Manning, Ph.D., our Chief Scientific Officer.

We refer to these executive officers as our “Named Executives.” In January 2018, the Company initiated a strategic review of its business, aimed at reducing costs of biosimilar development and focusing its resources on its pipeline of novel drug candidates for immune-mediated diseases (the “Strategic Review”). As a result of the Strategic Review, in September 2018, our Board approved a plan to reduce the Company’s headcount by approximately 50% (the “Restructuring”) in order to align our workforce with the Company’s new strategy to focus on the discovery and development of novel therapeutics for the treatment of rare immune-mediated diseases and to advance two late-stage biosimilar products. As part of the Restructuring, on September 26, 2018, Scott M. Storer, our former Senior Vice President, Chief Financial Officer and Treasurer, was terminated without cause, effective October 5, 2018.

In addition, in September 2018, the Board appointed Ms. Robertson, then our Vice President, Financial Planning and Analysis, as the Company’s Chief Financial Officer, replacing Mr. Wheeler, who had been performing the functions of principal financial officer since May 2018 in connection with Mr. Storer’s temporary medical leave of absence.

Executive Summary

The objectives of our executive compensation program are to align the interests of management with the interests of stockholders. We correlate compensation to Company and individual performance and design our programs to attract, retain and motivate talented employees. We reward both short- and long-term company and individual performance, with the goal of increasing stockholder value over the long term. In determining executive compensation for 2018, we considered the results of the most recent advisory, non-binding vote of stockholders on the compensation of the Named Executives, which was approved by 97% of the votes cast at the 2018 annual meeting of stockholders. We also reach out to stockholders from time to time to discuss important issues, including our compensation program, to inform our practices and confirm that they are aligned with our stockholders’ interests.

In 2018, the compensation committee updated:

- our long-term performance-based equity grant practices by replacing our performance based restricted stock awards with awards of performance-based restricted stock units (“PSUs”) for 2018;
- in connection with the Restructuring, our peer group for executive compensation and performance reference purposes to ensure the group is comprised of appropriately representative companies given our strategic changes in business; and

- given the uncertainty to our business resulting from the Strategic Review and Restructuring, our equity grant incentive policies to enhance the probability we could retain our executive team during the Restructuring and to more align our CEO's compensation with our investors' interests by making his equity grants more heavily performance based.

Our compensation committee reviews competitive market data provided by Radford, the committee's independent compensation consultant, in making compensation decisions. The compensation committee generally targets base salary, annual incentive cash bonus opportunities and equity based awards for our Named Executives at the 50th percentile of our peer group on an aggregate basis; however, the compensation committee retains discretion to allow for individual adjustments based on factors and considerations specific to the individual, including but not limited to, the Named Executive's performance during the year, leadership qualities, business responsibilities, role within the Company, industry experience, career and tenure with the Company, knowledge, qualifications, overall impact on the organization, current compensation arrangements, and long-term potential to enhance stockholder value. We more heavily weigh equity based awards than other forms of compensation because we believe equity based awards are a powerful tool for encouraging performance and aligning the interests of our executives with those of our stockholders.

Our key compensation decisions for 2018 included the following:

- In February 2018 the compensation committee decided not to consider increases in the base salaries of our executives, including our Named Executives, until the impact of our strategic review could be determined.
- In connection with the Restructuring, which included the departure of certain executives and the resulting need to consolidate responsibilities across a smaller executive team, we determined to promote Ms. Robertson and Drs. Kwon and Manning into roles of increased responsibility. In connection with such promotions as well as the expanded responsibilities of Dr. Arroyo, and following the compensation committee's review of industry trends in base salary increases, the compensation committee increased the base salaries of Ms. Robertson and Drs. Arroyo, Kwon and Manning, effective October 5, 2018, ranging from a 3.5% to 25.0% increase.
- In December 2018, the compensation committee determined bonuses under our annual bonus program for our executives, including eligible Named Executives, to be at a 95% corporate goal achievement level. Based on this corporate performance and the individual performances for eligible Named Executives, including their impact and value to the Strategic Review, the Restructuring and the conclusion of an equity financing in December 2018, the compensation committee approved an annual incentive cash bonus of 84% of base salary for our CEO, representing 105% of his target bonus for 2018, and annual incentive cash bonuses ranging from 40% to 46% of base salary for our other eligible Named Executives, representing between 100% to 115% of such Named Executives' target bonuses for 2018.
- In February 2018, Ms. Robertson, Mr. Storer and Drs. Arroyo, Kwon and Manning received grants of only time-based restricted stock units for 2017 performance in order to encourage stock ownership and retention during our Strategic Review, and Mr. Wheeler received a grant of time-based restricted stock units and stock options. The amounts of such grants were based in part on each such individual's position in the Company and in part on his or her individual achievements in 2017.
- In October 2018, our compensation committee adopted a new company-wide PSU program, in which our then-serving Named Executives participated. PSUs granted under the program vest in amounts up to 150% of the target number of units granted subject to the Company achieving up to three specified performance milestones on or before October 17, 2022. Upon achieving each of the milestones, 25% of the target number of units will vest on the milestone achievement

date, and an additional 25% of the units will vest on the one year anniversary of such achievement date, subject to a requirement that recipients remain employees through each applicable vesting date. The PSUs are further subject to accelerated vesting in certain circumstances, as described below under “Equity Awards—October 2018 Retention and Incentive Awards.” Each PSU represents the right to receive a number of shares of our common stock based on our achievement of specified milestones or, at the administrator’s discretion, the equivalent cash value shortly following vesting.

- Also in October 2018, in connection with the conclusion of the Strategic Review and the Restructuring, the compensation committee granted time-based restricted stock units to certain of our executives, including our then-serving Named Executives other than Mr. Wheeler, in order to encourage stock ownership and retention of such Named Executives.

Highlights of our compensation practices and policies include:

- Stock ownership guidelines designed to foster alignment between the board, management, and stockholders, by requiring all directors and executive officers to maintain a meaningful investment in our stock.
- Use of periodic long-term performance-based stock grants that are tied to the achievement of important corporate value generating events and are generally earned over a multi-year period, to supplement annual time-based equity grants and incent key business and strategic objectives.
- Double-trigger executive severance protection, whereby cash severance and equity acceleration occurs only in the context of a qualifying termination of employment, not merely upon a change of control of the Company.
- Explicit prohibition of hedging the economic risk of ownership of our equity securities by our executive officers and directors.

Overview of Compensation Program and Philosophy

Our “pay-for-performance” philosophy forms the foundation for the compensation committee’s decisions regarding executive compensation. We use a combination of fixed and variable compensation programs to reward and incentivize strong performance, and to align the interests of our executives with our stockholders. This compensation philosophy, and the program structure approved by the compensation committee, is central to our ability to attract, retain and motivate individuals who can achieve the results that our stockholders expect.

Our compensation committee has determined that our compensation program should be designed to:

- link pay to performance, measured on the corporate and individual level;
- reinforce and reflect our business strategy and values;
- reward teamwork and integrity;
- motivate our employees to achieve meaningful results in support of our Company goals;
- keep things simple to promote understanding and enable employees to make informed decisions; and
- retain our management team and our other employees.

Our executive compensation philosophy is based on the following principles:

- *Competitive and Fair Compensation.* We believe that the performance of our Named Executives should be viewed, and their overall compensation should be determined, in the context of our

industry, our competitive landscape and our corporate performance. While we do not have an exact formula for allocating between cash and non-cash compensation, we try to balance short-term cash compensation and long-term equity compensation by offering competitive base salaries, market-competitive benefits and perquisites, annual incentive cash bonus awards and opportunities for financial growth through our equity incentive programs.

- *Sustained Performance.* In determining total compensation, we stress a philosophy that is performance driven. Our Named Executives are primarily rewarded based upon an assessment of corporate performance and secondarily on individual performance. Corporate performance is evaluated by reviewing the extent to which established corporate goals are met and individual performance is evaluated by reviewing each Named Executive's contributions in the context of the overall corporate goals. Considerations taken into account in evaluating individual performance include, but are not limited to, an individual's demonstration of leadership, teamwork and operational success in his or her functional area, as well as across the Company. Our compensation philosophy emphasizing performance permeates total compensation for both executives and non-executives. We believe that the design of our executive compensation program affects all of our employees and, because the performance of every employee is important to our success, we are cognizant of the effect that executive compensation may have on other employees.

Compensation for employees at all levels, including for our Named Executives, includes base salary, annual incentive cash bonuses, annual equity awards and other benefits. Certain employees, including our Named Executives, are also entitled to specified benefits in connection with a termination of employment or change of control.

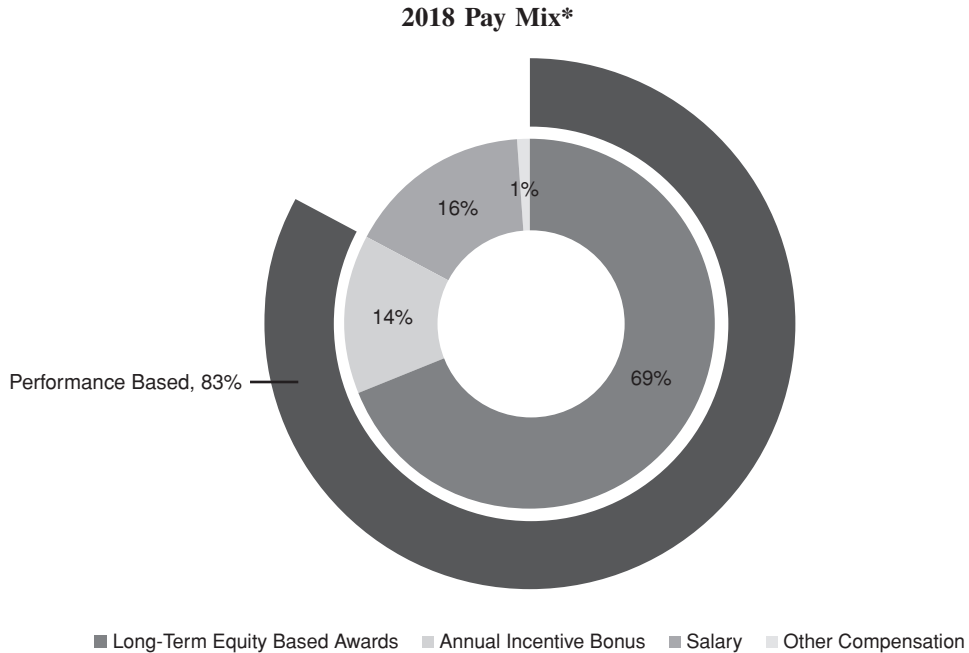
Realizable Pay Aligned with Stockholder Value

The Company's stock price has been and may continue to be extremely volatile. This volatility is due in part to regulatory, legal and other events and factors whose impact on our business is often unrelated or disproportionately related to our operating performance. The current value of outstanding equity awards can fluctuate considerably over time, falling well above or below the target or reported value of the awards at the time of grant. To help ensure our total compensation program is aligned with performance, our compensation committee regularly reviews the "realizable value" of equity awards in the context of the overall compensation program and continuing performance of the Company.

We believe that the compensation of our Named Executives is appropriate and aligned with the interests of our stockholders. In recent years, we have granted stock options and performance and time based restricted stock and restricted stock units. A substantial portion of total compensation for our Named Executives has been attributable to stock options, the realizable value of which depends upon an increase in our stock price (and thereby an increase in stockholder value) following the date of grant. We have also granted restricted stock and restricted stock units to our Named Executives subject to performance-based vesting conditions tied to attaining goals that our compensation committee believes are key to creating value for our stockholders and restricted stock and restricted stock units subject to time-based vesting conditions which encourages stock ownership by and retention of our Named Executives. In February 2018, our equity awards for Named Executives, other than our CEO, consisted solely of restricted stock units subject to time-based vesting conditions to encourage stock ownership and retention of such Named Executives during the period in which the company conducted the strategic review of its business. In February 2019, our equity awards for Named Executives consisted solely of stock options, in recognition of the grants of time-based restricted stock units in October 2018 in connection with our restructuring.

CEO Pay for Performance

A significant portion of Mr. Wheeler’s compensation is variable, performance-based compensation that we consider to be “at risk” because it is dependent on the success of our Company. At-risk compensation includes long-term equity based awards, the value of which depends on sustained, long-term increases in the price of our common stock, and annual incentive cash bonuses, which require attaining meaningful performance goals established by our board of directors with the intent of driving short-term value creation for our stockholders. The following charts and tables highlight the alignment between Mr. Wheeler’s compensation and our Company’s performance.

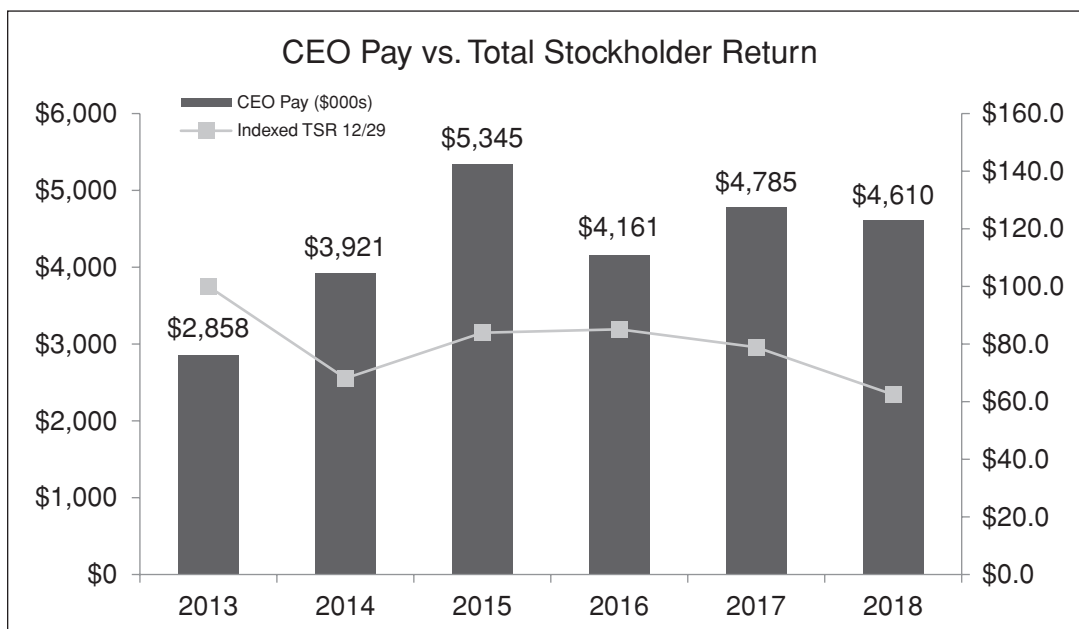


* Percentages calculated from values reported in the 2018 Summary Compensation Table.

We believe that the design of our compensation program, heavily weighted towards performance-based vehicles, provides a strong linkage between the level of actual pay delivered and our performance. As the table above demonstrates, 69% of Mr. Wheeler’s 2018 compensation was granted in the form of equity-based awards which are tied to the future appreciation in value of our stock and 14% of Mr. Wheeler’s 2018 compensation was based on actual performance tied to the achievement of annual targets under our 2018 bonus program. This strong focus on aligning pay and performance is a foundation of our executive compensation philosophy.

The following chart illustrates the alignment over the past five years of Mr. Wheeler’s total compensation (as reported in the Summary Compensation Table) and our total stockholder return (presented on an indexed basis, reflecting the value of \$100 invested in our stock on December 31,

2013 as measured based on the closing price of our common stock on the final day of each indicated year).

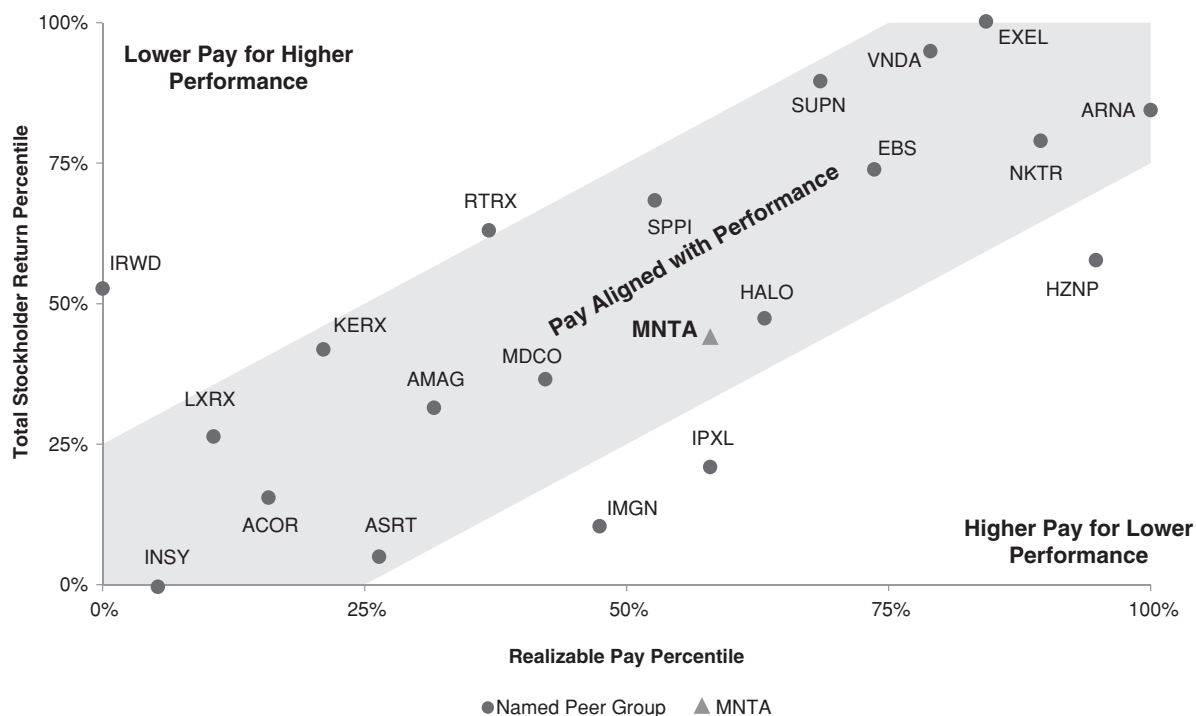


	2013	2014	2015	2016	2017	2018
CEO Pay (\$000s)	\$ 2,858	\$3,921	\$5,345	\$4,161	\$4,785	\$4,610
Indexed TSR 12/31	\$100.00	\$68.10	\$83.94	\$85.12	\$78.90	\$62.44

We have also examined Mr. Wheeler’s realizable pay and our Company’s performance relative to our selected peer group, which is described below under the heading “—Use of Competitive Market Compensation Data”. We have ranked Mr. Wheeler’s three-year total realizable pay for 2016-18 relative to his counterparts in our peer group and compared the result to our rank in total stockholder return versus the stockholder return of our peers over the same period. Realizable pay includes cumulative salary and bonus paid for the past three years, plus the value of stock options, performance-based restricted stock and stock units, time-based restricted stock and restricted stock units granted during the same period, valued based on the Company’s stock price on December 31, 2018. The following chart illustrates that we fall squarely within the “zone of alignment” that has been identified by certain corporate governance advocates as a key measure of pay for performance.

2016-2018 CEO Realizable Pay Rank versus 2018 Total Stockholder Return Rank

3-Year CEO Realizable Pay Rank versus Total Stockholder Return Rank



Stock Ownership Guidelines

We maintain a stock ownership and retention program for our executive officers and directors to ensure that each of our executive officers and directors has a long-term equity stake in Momenta, to more closely align the interests of the executive officers and directors with those of our stockholders and to further promote our commitment to sound corporate governance.

Under the program's guidelines:

- our President and CEO is expected to hold shares of our common stock having an aggregate value equal to or greater than three times his or her annual base salary;
- other executive officers are expected to hold shares of our common stock having an aggregate value equal to or greater than their annual base salary; and
- non-employee directors are expected to hold shares of our common stock having an aggregate value equal to or greater than three times their then current annual base retainer for general board membership, excluding committee retainers, per-meeting or other similar fees.

Our executive officers and directors are expected to comply with these guidelines within five years of becoming subject to the guidelines. Until the applicable minimum share requirement is achieved, each executive officer and director is required to retain all shares of restricted stock, and shares of stock received pursuant to restricted stock units upon the lapse of vesting restrictions, net of shares surrendered or sold to pay applicable withholding taxes. In addition, in the event that the applicable minimum share requirement is not achieved as of each determination date, such executive officer or director may not exercise and sell any stock options (other than to sell or surrender shares for payment of any taxes related to stock option exercises), including without limitation any sales pursuant to a

10b5-1 plan. Once an executive officer or director has met these guidelines, he or she must continue to satisfy the guidelines so long as he or she remains subject to the guidelines. Each executive officer and director's satisfaction of the minimum share requirement is measured on at least an annual basis. Shares that count toward satisfaction of the guidelines include:

- shares of common stock owned outright by the executive officer or director or his or her spouse or minor children;
- shares of common stock held in trust for the benefit of the executive officer or director or his or her spouse or minor children; and
- restricted stock or restricted stock units for which applicable restrictions have lapsed.

The minimum share requirement may be waived, at the discretion of the compensation committee, if compliance would create severe hardship or would prevent an executive officer or director from complying with a court order. As of April 1, 2019, all but two executive officers and all but three directors met the ownership requirements under the program. The officers and directors who are not in compliance are within the 5 year compliance period.

Determining Executive Compensation—Roles and Process

Utilizing the philosophy and background outlined above, our compensation committee determines the parameters of the executive compensation program, including appropriate target levels and performance measures, and administers our executive compensation program. This section discusses in greater detail the roles and process underlying the application of our executive compensation philosophy.

Role of the Compensation Committee

The compensation committee oversees all aspects of our director, officer and other executive compensation policies. Based on the recommendations of the CEO and our Chief Human Resources and Infrastructure Officer regarding each Named Executive's compensation, except his and her own, the compensation committee determines the compensation of each of these Named Executives. The chairman of the board and the chair of the compensation committee evaluate the CEO's performance, utilizing input from the board of directors and from selected executive officers, and make recommendations to the compensation committee, which then determines the CEO's compensation. The compensation committee also directly engages the services of an independent compensation consultant to assist the committee in evaluating its compensation practices and levels, as described in more detail under the caption "—Role of External Advisors" below.

Role of CEO in Compensation Decisions

Our CEO, together with our executive team, contributes to the establishment of annual corporate and business goals against which our annual incentive awards are measured. These goals are presented to our compensation committee, which reviews and finalizes the goals and recommends them for approval by our board of directors. The CEO's role in the compensation process continues with eliciting "360-performance reviews" of our Named Executives, which are evaluations submitted by employees who interact with the Named Executives. Each Named Executive also completes a written self-assessment which is submitted to the CEO. The CEO incorporates the feedback from the 360-performance reviews, the self-assessment and the CEO's own evaluation into formal written evaluations of the Named Executives. Based on the results of this performance review, the CEO then works directly with our Chief Human Resources and Infrastructure Officer to provide comprehensive recommendations for salary changes, individual components of annual incentive cash bonus awards and

equity awards for each of our Named Executives. These recommendations are presented to our compensation committee for review, modification and approval.

At the request of the compensation committee, our CEO attends all or portions of periodic meetings of the compensation committee, but does not attend portions of any meeting in which the compensation committee discusses the CEO's compensation or performance.

The compensation committee has delegated to our CEO the authority to make stock option grants under our 2013 Incentive Award Plan to newly-hired employees below the senior director level based on a number of options within a range as set forth in a matrix previously approved by the board of directors. All other stock options and all grants of restricted stock and restricted stock units are granted by the compensation committee.

Role of External Advisors

To assist the compensation committee in discharging its responsibilities, the compensation committee directly engages its independent compensation consultant, Radford, to evaluate aspects of our compensation practices, provide advice and make recommendations in determining compensation practices and levels, including making recommendations for our board of directors and executive compensation programs. As part of this process, members of the compensation committee reviewed materials provided by Radford and had the opportunity to meet independently with Radford periodically throughout the year to discuss our executive and director compensation and to receive input and advice. The compensation committee has access to all written reports and studies provided by Radford to management. In 2018 and early 2019, Radford analyzed the share reserve under our 2013 Incentive Award Plan and projected share usage and updated its reports on director compensation and on executive compensation philosophy, base salary, merit increases and allocation of equity stock grants. In addition, Radford also assisted us in identifying our median employee and determining the ratio of our median employee's annual total compensation to the annual total compensation of our CEO as described in more detail below under "CEO Pay Ratio." After review and consultation with Radford, the compensation committee has determined that Radford is independent and there is no conflict of interest resulting from retaining Radford currently or during the year ended December 31, 2018. In reaching these conclusions, the compensation committee considered the factors set forth in Exchange Act Rule 10C-1 and Nasdaq listing standards.

We do not use "internal pay equity" as a constraint on compensation paid to our CEO or other Named Executives. Such systems typically put a ceiling on part or all of an executive's compensation based on a specified multiple of compensation awarded to another executive or a class of employees of the Company. Our management and our compensation committee do not believe that such limitations are an appropriate way to make compensation decisions for our executives. Instead, we rely on the judgment of the compensation committee, after considering recommendations from management and external advisors, available market data and evaluations of executive performance, in the context of a program that is weighted heavily in favor of performance-based compensation for our Named Executives.

Use of Competitive Market Compensation Data

We maintain a peer group for executive compensation and performance reference purposes. The compensation committee, in consultation with Radford, determines the peer group using benchmarks based on revenue, market capitalization, and number of employees, among other factors, and uses a multi-year period perspective in determining the peer group.

Prior to 2018, we had the dual focus of developing novel drug candidates and nurturing a portfolio of biosimilar and complex generic products and product candidates. In 2018, we initiated our Strategic Review and ultimately determined that shareholder value could be enhanced by shifting our future investments to fully support development of our promising novel drug portfolio and our two late stage biosimilar product candidates. Accordingly, following the Strategic Review, we made the decision in September of 2018 to implement the Restructuring.

In connection with the Restructuring, we terminated all future development of any new or early stage biosimilar and complex generic products, retained our commercial partnership for our two approved complex generic products and retained two of our late stage biosimilar candidates. Additionally, as part of the Restructuring, we announced in October 2018 that we would reduce our workforce by approximately 50%, which reduction was substantially completed as of the end of 2018.

We believe that our current business, which now consists of two product areas, novel therapeutic candidates and legacy products, which include complex generics and our remaining late stage biosimilar product candidates, is more complex than many companies of our size and impacts the quality and breadth of talent that we need to attract and retain. We often compete for talent with much larger companies that have greater resources.

While the compensation committee reviews the peer group annually and makes changes when appropriate, we do not believe it is appropriate or informative to necessarily change our peer group or our benchmark practices to reflect changes in the development stages of our programs or periods of significantly high or low free cash flows. We believe that doing so would not accurately reflect our current or long-term talent and performance requirements. In addition, there is potential that frequent changes to our peer group or benchmarking practices could result in dramatic swings in compensation that do not reflect long-term performance leading to long-term stockholder value. Instead, we generally take a longer term, multi-year perspective in reviewing and selecting our peer group companies.

In selecting our peer group companies for 2018, the compensation committee considered a recommendation provided by Radford, as well as our 2017 peer group, the peer group companies selected for us by certain proxy advisory firms and the guidelines used by those proxy advisory firms in selecting peer companies. In making its recommendation, Radford first identified all publicly traded, U.S.-headquartered companies in the biotechnology/pharmaceutical industry at the commercial stage. Based on projected company metrics for 2018, Radford next refined the pool to reflect companies with 100 to 1,000 employees, annual revenue between \$50 million and \$500 million and a market capitalization between \$400 million to \$3.6 billion. Radford next qualitatively evaluated and refined the pool to identify each company's business focus and corporate strategy, where publicly disclosed. Radford then selected companies that were similar to us, taking into consideration the business focus, financial profile and stage of development for each company. Based on its analysis and Radford's recommendation, in September 2017 the compensation committee approved the following 2018 peer group companies:

2018 Peer Group Companies

Acorda Therapeutics, Inc.	INSYS Therapeutics Inc.
AMAG Pharmaceuticals, Inc.	Ironwood Pharmaceuticals, Inc.
Arena Pharmaceuticals, Inc.	Keryx Biopharmaceuticals, Inc.
Depomed, Inc.	Lexicon Pharmaceuticals, Inc.
Emergent BioSolutions, Inc.	Retrophin, Inc.
Exelixis, Inc.	Nektar Therapeutics
Halozyyme Therapeutics, Inc.	Spectrum Pharmaceuticals, Inc.
Horizon Pharma plc	Supernus Pharmaceuticals, Inc.
ImmunoGen, Inc.	The Medicines Company
Impax Laboratories, Inc.	Vanda Pharmaceuticals Inc.

The 2018 peer group included certain changes from the 2017 peer group as follows: the removal of Merrimack Pharmaceuticals, Inc. and the addition of Lexicon Pharmaceuticals, Inc. and Retrophin, Inc. Merrimack Pharmaceuticals, Inc. was removed from the peer group because its market capitalization fell below Radford's suggested range and it sold its commercial product. The two companies were added to the peer group as they fell within the financial parameters described above.

In anticipation of our Restructuring, which changed our business significantly, in selecting our peer group companies for 2019, the compensation committee considered recommendations provided by Radford. In making its recommendations, Radford first identified all publicly traded, U.S.-headquartered companies in the biotechnology/pharmaceutical industry at the Phase 2 development stage with multiple product candidates or a revenue stream. Based on projected company metrics for 2019, Radford next refined the pool to reflect companies with 40 to 330 employees, annual revenue between \$15 million and \$135 million and a market capitalization between \$500 million to \$2 billion. Radford next qualitatively evaluated and refined the pool to identify each company's business focus and corporate strategy, where publicly disclosed. Radford then selected companies that were similar to us, taking into consideration the business focus, financial profile and stage of development for each company. In addition, the compensation committee also considered our 2018 peer group and Radford's recommendations regarding inclusion of those companies, along with the guidelines used by certain proxy advisory firms in selecting peer companies for us. Based on its analysis and Radford's recommendations, in March 2018 the compensation committee approved the following 2019 peer group companies:

2019 Peer Group Companies

Adaptimmune Therapeutics plc	Iovance Biotherapeutics, Inc.
Akebia Therapeutics, Inc.	Jounce Therapeutics, Inc.
Arena Pharmaceuticals, Inc.	Mirati Therapeutics, Inc.
Audentes Therapeutics, Inc.	MyoKardia, Inc.
CytomX Therapeutics, Inc.	Prothena Corporation plc
Enanta Pharmaceuticals, Inc.	Reata Pharmaceuticals, Inc.
Epizyme, Inc.	Sangamo Therapeutics, Inc.
Five Prime Therapeutics, Inc.	Wave Life Sciences, Inc.
GlycoMimetics, Inc.	Xencor Inc.
ImmunoGen, Inc.	ZIOPHARM Oncology Inc.

As a result of our Restructuring, the 2019 peer group only retained Arena Pharmaceuticals, Inc. and ImmunoGen, Inc from our 2018 peer group. The additional 18 companies were added to the peer group as they fell within the financial parameters described above.

In addition to using a peer group for executive compensation and performance reference purposes, we also utilize survey data, which has the advantage of including data on executive positions beyond what is available in public filings. In the fall of 2017 we obtained survey data from the Radford survey of the life sciences industry in Massachusetts and nationally. These surveys were utilized in determining the appropriate target level for Company-wide salary increases for 2018 to assure that our proposed merit salary increases were competitive in the market. The projected merit salary increases for 2018 contained in the surveys was 3.5% of current base salaries. Using this data, we set a Company-wide target level of merit salary increase for 2018 at 3.5%, with the goals of retaining a competitive compensation package and aligning internal compensation with external candidates coming into the Company. In addition, in February of 2018, Radford utilized survey data from the same survey source used in 2017 in recommending 2018 compensation levels for the Named Executives. At such time, the compensation committee decided to maintain the then current base salaries for our Named Executives until the impact of our Strategic Review could be factored into the decision, but considered Radford's recommendations in approving base salary increases in September 2018. With respect to the survey data presented to the compensation committee, the identities of the individual companies included in the survey were not provided to the compensation committee, and the compensation committee did not refer to individual compensation information for such companies.

We believe that the use of both publicly available peer group data and survey data provides us a comprehensive set of compensation data from which we are able to make informed compensation decisions and remain competitive with the market in which we compete for executive talent. While the compensation committee generally targets the 50th percentile of our peer group when determining compensation for our Named Executives, the compensation committee does not establish compensation levels based directly on benchmarking. The compensation committee instead relies on the judgment of its members in making compensation decisions regarding base salaries, target bonus levels and long-term equity incentive awards after reviewing our performance and carefully evaluating each Named Executive's performance during the year, leadership qualities, business responsibilities, role within the Company, industry experience, career and tenure with the Company, knowledge, qualifications, overall impact on the organization, current compensation arrangements, and long-term potential to enhance stockholder value. The compensation committee does not guarantee that any executive will receive a specific market-derived compensation level.

In addition, the compensation committee determines the mix of compensation elements, such as base salary, annual incentive cash bonuses and equity awards, on an individual basis. The compensation committee allocates total compensation between cash and equity compensation based on a number of objective and subjective factors, including the role and responsibilities of the individual executive, and the nature of the behaviors the incentives are intended to motivate. The compensation committee's philosophy is to balance compensation between long-term and short-term compensation, cash and non-cash compensation, and to take into the account the roles and responsibilities of the individual officer.

Elements of Compensation

Our compensation program is designed to reward each Named Executive based upon achievement of a combination of corporate and individual performance objectives. Corporate performance is evaluated by reviewing the extent to which pre-set goals are met, which generally include the achievement of specified operational and financial goals; specific research, clinical, regulatory, commercial or compliance milestones; and business development and financing initiatives. We evaluate individual performance in part by reviewing the extent to which individual performance facilitated the achievement of our corporate and business goals.

The compensation package offered to each Named Executive is comprised of a combination of:

- base salary;
- annual incentive cash bonus awards;
- annual equity awards;
- other benefits, such as health, dental, disability and life insurance; and
- severance and change of control agreements.

Base Salary

Base salaries for our Named Executives are set at levels intended to reflect the scope of each Named Executive's leadership qualities, business responsibilities, role within the Company, industry experience, career and tenure with the Company, knowledge, qualifications, overall impact on the organization, current compensation arrangements, and long-term potential to enhance stockholder value. In setting base salary, our compensation committee reviews salary levels in effect for comparable positions within our peer group companies and also survey data of comparable positions within our industry. We believe that base salaries are a fundamental element of our executive compensation program because they provide a stable source of income for our Named Executives at a competitive

level. Base salaries are reviewed at least annually by our compensation committee and are adjusted from time to time to ensure that our executive compensation structure remains aligned with our compensation objectives and to reward individual performance when warranted. The compensation committee generally targets base salaries for our Named Executives at the 50th percentile of our peer group.

2018 Base Salary. In February 2018, the compensation committee reviewed the salaries of the Named Executives and did not approve an increase at that time as it was decided to maintain the same compensation levels until the impact of our ongoing strategic business review could be factored into the decision. Effective January 1, 2018, Ms. Robertson, who was not a Named Executive at such time, received a merit increase of 2.3% to her base salary. In connection with the Restructuring, the compensation committee increased base salaries for each of our Named Executives, except for Messrs. Wheeler and Storer, in September 2018. The increases were determined following consideration of the expanded responsibilities of the Named Executives following the Restructuring, the promotions of Ms. Robertson and Drs. Kwon and Manning, the compensation committee’s review of industry trends in base salary increases as discussed in “Use of Competitive Market Compensation Data”, and individual performance reviews of the Named Executives. The following table sets forth the base salary increases approved by the compensation committee effective October 5, 2018:

<u>Name</u>	<u>2017</u>	<u>2018</u>	<u>Increase (%)</u>
	<u>Base Salary (\$)</u>	<u>Base Salary (\$)</u>	
Craig A. Wheeler	750,000	750,000	—
Michelle Robertson	280,000(1)	350,000	25
Santiago Arroyo	440,000(2)	450,000	2.3%
Young Kwon	403,150	440,000	9.1
Anthony Manning	351,050	380,000	8.2%
Scott M. Storer	420,000	420,000(3)	—

- (1) Ms. Robertson commenced her employment with us in May 2017. \$280,000 represents the base salary payable to Ms. Robertson pursuant to the terms of her employment agreement.
- (2) Dr. Arroyo commenced his employment with us in June 2017. \$440,000 represents the base salary payable to Dr. Arroyo pursuant to the terms of his employment agreement.
- (3) Mr. Storer ceased his employment with us in October 2018. \$420,000 represents his annual base salary up to such date.

2019 Base Salary. The compensation committee reviewed the salaries of the Named Executives at its February 2019 meeting and determined to maintain the base salaries that had been increased in October 2018 for all of the Named Executives other than Mr. Wheeler and to maintain Mr. Wheeler’s based salary at his 2017 level.

Annual Incentive Cash Bonus

We use annual incentive cash bonuses to motivate and reward our Named Executives to achieve and exceed specified goals on an annual basis. Annual incentive cash bonuses are determined based on our achievement of corporate performance targets and individual contribution toward those corporate goals. Our corporate goals are typically focused upon the achievement of specific research, clinical, regulatory, commercial, financial, compliance or operational milestones. We consider these goals to be difficult to attain, conducive to the creation of stockholder value and designed to contribute to our current and future financial success. The goals we believe will have the greatest impact on stockholder value during the performance period receive the heaviest weighting.

Under our annual incentive cash bonus program, corporate goals are proposed by management, then reviewed and adopted by the compensation committee. Corporate goals are based on metrics or events that we believe will lead to increases in stockholder value over the one-year performance period. Each corporate goal is assigned a percentage weighting and consists of three achievement milestones that correspond to achievement levels of 75%, 100% and 125%, respectively, of the goal. Achievement milestones for any corporate goal may represent different levels of achievement of the same condition or event, cumulative achievement of similar conditions or events, or may be independent conditions or events that are separately achievable. Our compensation committee retains discretion to set achievement levels for each corporate goal along a continuous range from 50% to 150% of the target level to more accurately reflect, where appropriate, extenuating or mitigating factors, extraordinary circumstances or other considerations relating to the achievement of one or more milestones for each goal or the resulting value of such achievement to stockholders and the Company.

The compensation committee approves an aggregate amount to fund all bonus payments to all employees, which we refer to as the annual bonus pool, based on our achievement of corporate goals. For example, if we were to achieve 70% for each of our corporate goals, the annual bonus pool would be equal to 70% of the aggregate target bonuses for all employees.

The CEO's annual incentive cash bonus award is determined based entirely upon the achievement of corporate goals. In the case of our other Named Executives, 75% of their annual incentive cash bonus awards is determined based upon the achievement of corporate goals and 25% upon the subjective analysis of their individual performance in relation to the corporate goals as determined by their performance review. The individual performance component of these bonuses is also adjusted by the percentage achievement of corporate goals. The individual performance reviews are presented to our compensation committee along with compensation recommendations. However, the compensation committee makes the final determination of each Named Executive's individual achievement level subjectively, based on its own analysis of performance and not formulaically by reference to pre-determined performance objectives.

Target bonuses for 2018 were 80% of base salary for our CEO, and 40% of base salary for our other Named Executives. In October 2018, in connection with the promotion of Ms. Robertson to the position of Chief Financial Officer, the compensation committee approved an increase to Ms. Robertson's target bonus from 30% to 40% of her base salary, effective as of October 5, 2018. Each other Named Executive's target bonus remained at the same level as in 2017. The CEO has a maximum bonus opportunity equal to 150% of his base salary, as required by his employment agreement. Our other Named Executives do not have specified maximum bonus opportunities. Bonuses, if any, are determined and paid on an annual basis after completion of the fiscal year in which bonuses are earned. The 2018 corporate goals and their respective weightings were:

- maximizing our GLATOPA 20 mg/mL and GLATOPA 40 mg/mL programs based on achievements in revenue and regulatory milestones (10%);
- enhancing the value of biosimilar products based on clinical trial advancement, regulatory and partnership milestones (30%);
- developing our novel therapeutics programs based on clinical trial milestones (30%);
- expanding our novel therapeutics programs based on clinical trial and collaboration milestones (20%); and
- achieving financial discipline goals (10%).

In assessing the achievement of these goals, the compensation committee considered the recommendations of our CEO, who, with input from other executive officers, reviewed the Company's performance against the goals and made recommendations to the board of directors and the

compensation committee. The compensation committee also considered assessments and guidance by the science committee relating to the achievement of technical and scientific goals. In December 2018, the compensation committee met and determined achievement of the corporate goals was 95%, as set forth in the chart below. In reviewing this determination, the compensation committee noted the particular events that significantly impacted performance in 2018, including our Strategic Review, Restructuring and equity financing completed in December 2018. Utilizing its discretion, the compensation committee determined the overall corporate goal achievement level for Mr. Wheeler to be 105% in recognition of Mr. Wheeler overseeing such significant non-recurring factors in 2018 against the achievement of corporate goal percentage. The achievement of corporate goals was determined as follows:

<u>Corporate Goal</u>	<u>Percentage Value (%)</u>	<u>Actual Level of Achievement (%)</u>	<u>Percentage Earned (%)</u>
Maximizing Glatopa programs	10%	125%	12.5%
Enhancing value of our biosimilars	30%	75%	22.5%
Advancing novel therapeutic programs	30%	100%	30%
Expanding novel therapeutics programs	20%	100%	20%
Financial discipline goals	10%	100%	10%
Total	100%		95%

In February 2019, the compensation committee reviewed the performance recommendation for each of Ms. Robertson, Dr. Arroyo, Dr. Manning and Dr. Kwon as submitted by the CEO and our Chief Human Resources and Infrastructure Officer. Individual performance was assessed, in part, on the Named Executive's contribution towards achievement of corporate goals, managerial and departmental success and leadership within the organization, including their contributions to the particular events that significantly impacted performance in 2018, including our Strategic Review, Restructuring and equity financing completed in December 2018.

Based on the assessment of overall achievement level and the subjective analysis of individual performance, we paid bonuses to our Named Executives for their performance in 2018 representing the following percentages of base salary and target bonus payment as of December 31, 2018:

<u>Name</u>	<u>Target Bonus as a Percentage of Base Salary (%)</u>	<u>Target Bonus Payment (at 100%) (\$)</u>	<u>Corporate Goal Component as a Percentage of Target Bonus (%)</u>	<u>Individual Performance Component as a Percentage of Target Bonus (%)</u>	<u>Corporate Goal Achievement Level (%)</u>	<u>2018 Bonus Payment (\$)</u>	<u>2018 Bonus Payment as a Percentage of Target Bonus Payment (at 100%) (%)</u>
Craig A. Wheeler	80	600,000	100	—	105	630,000	105
Michelle Robertson	40	140,000	75	25	95	147,000	105
Santiago Arroyo	40	180,000	75	25	95	189,000	105
Anthony Manning	40	152,000	75	25	95	152,000	100
Young Kwon	40	176,000	75	25	95	202,400	115

Mr. Storer was not eligible to receive an annual bonus for 2018 because he terminated employment during 2018. However, pursuant to the terms of his separation and release agreement entered into with him in connection with his termination, as part of his cash severance, Mr. Storer received an amount equal to the greater of (i) his target bonus for 2018 or (ii) the annual bonus paid to him in 2017.

Equity Awards

Compensation for employees, including our Named Executives, also includes equity awards designed to align the long-term interests of our employees and our stockholders, to reward the

achievement of individual performance goals and to assist in the retention of employees and executives. Prior to 2017, we historically provided annual grants of time-based stock options and restricted stock to our Named Executives. Beginning in 2017, our compensation committee elected to replace our annual restricted stock awards with awards of restricted stock units. Each restricted stock unit represents the right to receive one share of our common stock or, at the administrator's discretion, its cash value equivalent shortly following vesting. In February 2018, our equity awards for our CEO were in the standard format from prior years, with half of the grant value in restricted stock units subject to time based vesting and the balance in stock options. Given the uncertainty resulting from the Strategic Review, the equity awards in February 2018 to our Named Executives consisted solely of restricted stock units subject to time based vesting conditions to encourage stock ownership and retention of such Named Executives. In October 2018, given the expanded responsibilities and business uncertainties resulting from the Restructuring, coupled with declining stock values, the compensation committee determined to grant additional time based restricted stock units to our executives, including Named Executives, except for Mr. Wheeler, to enhance our ability to retain our critical executives. In February 2019, our compensation committee determined to award to our Named Executives only stock options given the award of time based restricted stock units in October 2018.

We have historically maintained at least one outstanding long-term performance based grant of restricted stock for our executives and employees, vesting of which is subject to the achievement of conditions we expect will require several years to attain and will create significant value for our stockholders, such as receipt of approval for a specific product from governmental entities. Consequently, we make performance based equity grants less frequently than time-based equity grants. The Restructuring eliminated the potential of any future value for executives and employees under performance based equity awards made under our 2016 plan. Accordingly, a new plan was put in place for our employees and executives in October 2018 and all Named Executives, except for Mr. Wheeler, received grants of PSUs under the plan. At such time, the compensation committee determined to defer granting any performance based or time based equity awards to our CEO, in part to determine how the retention of executives and a financing of the company after our Restructuring proceeded. In December 2018, after the successful completion of our equity financing and evidence of the stabilization of the executive team, the compensation committee determined to make an equity grant to our CEO limited to performance based restricted stock units to further align CEO equity awards with stockholder value.

The compensation committee does not use a quantitative formula to determine the size of annual equity awards for our Named Executives. The compensation committee intends that the annual aggregate value of awards (using the Black Scholes model in the case of options) to the Named Executives will be targeted at the 50th percentile of our peer group, with an opportunity to achieve above or below that amount based on performance. Our equity grants awarded in 2019 for 2018 performance positioned our Named Executives approximately in the 50th percentile of our peer group.

Annual Equity Awards for 2018 Performance. At its meeting in February 2019, our compensation committee reviewed proposed equity awards for 2018 performance of our currently serving Named Executives and approved the following awards of stock options, which vest as to 25% of the shares on

the first anniversary of the date of grant and an additional 6.25% of the shares at the end of each successive three-month period thereafter:

<u>Name</u>	<u>Shares of Common Stock Underlying Stock Options (#)</u>
Craig A. Wheeler	491,000
Michelle Robertson	97,000
Santiago Arroyo	130,000
Young Kwon	135,000
Anthony Manning	106,000

Annual Equity Awards for 2017 Performance. At its meeting in February 2018, our compensation committee reviewed proposed equity awards for 2017 performance of the Named Executives and approved the following awards of stock options and restricted stock units:

<u>Name</u>	<u>Shares of Common Stock Underlying Stock Options (#)</u>	<u>Restricted Stock Units (#)</u>
Craig A. Wheeler	197,500(1)	98,750(1)
Michelle Robertson	—	9,740(2)
Scott M. Storer	—	55,000(2)
Santiago Arroyo	—	50,000(2)
Young Kwon	—	55,000(2)
Anthony Manning	—	50,000(2)

- (1) The awards vest as to 25% of the shares on the first anniversary of the date of grant and an additional 6.25% of the shares vest at the end of each successive three-month period thereafter.
- (2) The restricted stock units vest as to 50% of the shares on the first anniversary of the grant date and as to the remaining 50% of the shares on the second anniversary of the grant date, subject to accelerated vesting in the event the Named Executive’s employment with us is terminated without “cause” or the Named Executive resigns for “good reason” (as such terms are defined in the Named Executive’s employment agreement). The Retirement Policy (as defined and described below in “Other Elements of Compensation and Perquisites-Equity Award Retirement Policy”) does not apply to these restricted stock unit awards.

October 2018 Retention and Incentive Awards. On October 17, 2018, the Compensation Committee determined that as a result of the Restructuring, it was desirable to grant equity awards to all of our employees, including our then-serving Named Executives, in order to retain and incentivize them to

implement our new strategy. The equity awards granted to our Named Executives consisted of PSUs and time-based restricted stock units as follows:

Name	Target Performance-based Restricted Stock Units (#)(1)	Time-Based Restricted Stock Units (#)(2)
Craig A. Wheeler*	334,000	—
Michelle Robertson	60,000	39,000
Santiago Arroyo	60,000	56,000
Young Kwan	60,000	56,000
Anthony Manning	60,000	56,000

* Mr. Wheeler’s PSU award was granted on December 21, 2018.

- (1) The PSUs are eligible to vest in amounts up to 150% of the target number of PSUs based on the Company’s achievement of up to three clinical or regulatory milestones prior to October 17, 2022. The PSUs vest as to: (i) 25% of the target number of PSUs on the date the first milestone is achieved; (ii) 25% of the target number of PSUs on the first anniversary of the date the first milestone is achieved; (iii) 25% of the target number of PSUs on the date the second milestone is achieved; (iv) 25% of the target number of PSUs on the first anniversary of the date the second milestone is achieved; (v) 25% of the target number of PSUs on the date the third milestone is achieved; and (vi) 25% of the target number of PSUs on the first anniversary of the date the third milestone is achieved, provided that if any milestone is achieved prior to October 17, 2019, the PSUs eligible to vest upon such achievement shall vest on October 17, 2019. In addition, the PSUs will accelerate with respect to 25% of the target number of PSUs as of the date of a transfer to a third party of the Company’s program, business line or business division principally responsible for the product that is subject to an applicable milestone (a “Program Transfer”) (or as of October 17, 2019 if the Program Transfer occurs prior to October 17, 2019) and with respect to 25% of the target number of PSUs as of the first anniversary of the Program Transfer. The PSUs will also vest as to 150% of the target number of PSUs in the event of a termination without “cause” on or after the first anniversary of the grant date and within 12 months following a change in control.
- (2) The time-based restricted stock units vest as to 25% of the shares on the first anniversary of the date of grant and an additional 6.25% of the shares vest at the end of each successive three-month period thereafter.

Timing and Pricing of Equity Grants. The annual equity grant date for all eligible employees, including the Named Executives, is the date of the regularly scheduled meeting of the compensation committee following completion of company-wide performance reviews, which meeting date is generally set a year in advance. The grant date coincides with our calendar-year-based performance management cycle, allowing us to deliver the equity awards close in time to performance assessments, which increases the impact of the awards by strengthening the link between pay and performance.

Aside from the annual equity grant to employees, it has been our policy that equity awards be granted:

- to non-employee members of the board of directors, on the date of the scheduled board meeting coinciding with our annual stockholders’ meeting each calendar year; and
- to newly-hired employees on the date of the next scheduled meeting of the compensation committee occurring after their date of hire.

Initial stock option grants typically vest as to 25% of the shares subject to such option one year from the date of grant and 6.25% of the shares subject to such option on a quarterly basis thereafter. Annual restricted stock and restricted stock unit awards have historically vested as to 25% of the shares on the first anniversary of the date of grant and an additional 6.25% of the shares at the end of each successive three-month period thereafter. Annual option awards have historically vested quarterly over a four-year period commencing three months from the date of grant. Due to the uncertainties surrounding our strategic business review, in February 2018 we made a one-time change to our annual stock grants to improve retention. Accordingly, our annual restricted stock unit awards granted to our Named Executives, other than our CEO, in February 2018 for 2017 performance vest as to 50% of the shares on each of the first and second anniversaries of the date of grant, subject to accelerated vesting in the event the Named Executive is terminated without cause or resigns for good reason. In February 2019, our annual grants of stock options vested as to 25% of the shares on the first anniversary of the date of grant and an additional 6.25% of the shares at the end of each successive three-month period thereafter. Awards granted to our employees, directors or consultants after June 9, 2015 are generally subject to a minimum one year vesting requirement, subject to certain exceptions set forth in our 2013 Incentive Award Plan.

The compensation committee sets the exercise price of all employee stock options to equal the closing price of our common stock on The Nasdaq Global Select Market on the date of grant.

Other Elements of Compensation and Perquisites

We maintain broad-based benefits that are provided to eligible employees, including health, dental, life and disability insurance and a 401(k) plan. Our Named Executives are eligible to participate in our employee benefit plans, on the same basis as other employees. In order to attract and retain our employees and provide benefits packages aligned with market levels, we provide our Named Executives and other employees the following benefits and perquisites:

Medical Insurance. We provide to our Named Executives, their spouses, domestic partners and children, health, dental and vision insurance coverage that we generally make available to other employees. We pay a portion of the premiums for this insurance for all employees.

Life and Disability Insurance. We provide each Named Executive disability and/or life insurance that we may from time to time make available to other executive employees. Our CEO also receives reimbursement for an additional \$3.0 million life and disability policy, capped at a maximum of \$5,000 of reimbursement premium per year, as well as a tax gross up for such reimbursements.

Defined Contribution Plan. We offer a Section 401(k) Savings/Retirement Plan, or the 401(k) Plan, a tax-qualified retirement plan, to eligible employees. The 401(k) Plan permits eligible employees to defer up to 60% of their annual eligible compensation, subject to certain limitations imposed by the Internal Revenue Code, or the Code. In any plan year, we contribute a matching contribution equal to 50% of the first 6% of a participant's contributions. Our contribution is subject to vesting at the rate of 25% at the end of each year over the first four years of employment. All of our Named Executives participated in the 401(k) Plan in 2018.

Employee Stock Purchase Plan. We also offer an Employee Stock Purchase Plan, or the ESPP. The ESPP is available to all of our employees, including the Named Executives, who work more than 20 hours per week and five months per year. Under the ESPP, eligible participants purchase shares of our common stock at a discount of 15% from the fair market value of the lower of the beginning date or end date of the applicable purchase period. The purchase dates occur on the last business day of January and July of each year. To pay for the shares, each participant may authorize periodic payroll deductions ranging from 1% to 15% of his or her cash compensation, subject to certain limitations imposed by applicable law. All payroll deductions collected from the participant during a plan period are automatically applied to the purchase of common stock on that period's purchase date provided the participant remains an eligible employee and has not withdrawn from the ESPP prior to that date.

Equity Award Retirement Policy. In December 2016 our board of directors adopted the Momenta Pharmaceuticals, Inc. Equity Award Retirement Policy, or the Retirement Policy, to provide for the treatment of time-based stock options and restricted stock units upon a participant's qualifying retirement from the Company. Under the Retirement Policy, following the qualifying retirement of any employee of the Company, including the Named Executives, or non-employee member of the board of directors, the participant's then-outstanding time-based options and restricted stock units will continue to vest during the one year period following the retirement date. In addition, the participant will have until the first anniversary of the retirement date (or 90 days following the date an option becomes first exercisable if such date is within the 90 days preceding the first anniversary of the retirement date) to exercise any vested options, except that no option may be exercised following the date upon which it would have expired under the applicable option award agreement if the participant had remained in service with us. Benefits under the Retirement Policy are conditioned upon a participant's continued compliance with any non-competition, non-solicitation, confidentiality or other restrictive covenants with the Company.

Other. We make available certain other perquisites or fringe benefits to all eligible employees, including the Named Executives, such as tuition reimbursement, parking subsidies, mass transit commuting passes, professional society dues, gym subsidies, cell phones and food and recreational fees incidental to official company functions, including board meetings. The CEO is also entitled to financial and tax advice, up to a maximum of \$5,000 annually, and reimbursement of expenses in connection with using his personal airplane for business purposes (up to the equivalent amount of a first class commercial fare per usage).

Severance and Change of Control Benefits

Pursuant to employment agreements, our Named Executives are entitled to specified benefits in the event of the termination of their employment under specified circumstances, including termination without cause or for good reason.

We believe that severance protections, particularly in the context of a change of control transaction, can play a valuable role in attracting and retaining executive officers, are an important part of an executive's total compensation package and are consistent with competitive practices. We believe that the occurrence, or potential occurrence, of a change of control will create uncertainty regarding the continued employment of our Named Executives. This uncertainty results from the fact that many change of control transactions result in significant organizational changes, particularly at the senior executive level. Our practice, in the case of our employment agreements, has been to structure these change of control benefits as "double trigger" benefits. In other words, the change of control does not itself trigger benefits; rather, benefits are paid only if the employment of the Named Executive is terminated during the twelve-month (or 24-month in the case of the CEO) period after the change of control. We believe a "double trigger" benefit maximizes stockholder value because it prevents an unintended windfall to executives in the event of a friendly change of control, while still providing them appropriate incentives to cooperate in negotiating any change of control in which they believe they may lose their jobs. Because we believe that a termination by the executive for good reason is conceptually the same as a termination by us without cause, and that in the context of a change of control potential acquirers would otherwise have an incentive to constructively terminate the executive's employment to avoid paying severance, we provide severance benefits in these circumstances. We have provided more detailed information about these benefits, along with estimates of their value under various circumstances, under the captions "—Employment, Severance and Change of Control Arrangements" and "—Potential Termination and Change of Control Payments" below.

Tax Considerations

Section 162(m) of the Code places a limit of \$1,000,000 per person on the amount of compensation that a public company may deduct in any year with respect to certain current or former

executive officers. Our compensation committee has not adopted a policy requiring all executive compensation to be fully deductible, but reviews the potential impact of section 162(m) periodically and reserves the right to use its judgment to authorize compensation payments that may be subject to the section 162(m) limitation when it believes these payments are appropriate.

Risk Assessment of Compensation Policies and Programs

We periodically assess our compensation policies and programs for purposes of determining the relationship of such policies and programs to our enterprise risks. This assessment typically occurs in connection with the establishment of corporate goals and annual incentive programs for our employees. We do not believe that our compensation policies or programs create risks that are reasonably likely to have a material adverse effect on us.

Compensation Committee Report

The compensation committee has reviewed and discussed the Compensation Discussion and Analysis with the Company's management. Based on this review and discussion, the compensation committee recommended to our Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement.

By the Compensation Committee of the Board of Directors of Momenta Pharmaceuticals, Inc.:

Thomas P. Koestler (Chair)
Bruce L. Downey
Steven C. Gilman
Jose-Carlos Gutiérrez-Ramos

Summary Compensation Table for 2018

The following table sets forth information regarding compensation earned by the Named Executives:

Name and Principal Position	Year	Salary	Stock	Option	Non-Equity	All Other	Total
		(\$)	Awards(1) (\$)	Awards(1) (\$)	Incentive Plan Compensation (\$)	Compensation(2) (\$)	(\$)
Craig A. Wheeler <i>President, Chief Executive Officer and Director</i>	2018	750,000	1,609,625	1,590,566	630,000	30,079	4,610,270
	2017	750,000	1,743,625	1,776,463	480,000	34,551	4,784,639
	2016	689,179	2,149,290	737,818	554,789	29,948	4,161,024
Michelle Robertson <i>Chief Financial Officer</i>	2018	301,395	747,662	—	147,000	13,516	1,209,573
Scott M. Storer <i>Former Senior Vice President and Chief Financial Officer</i>	2018	252,877	896,500	—	168,000	667,588	1,984,965
	2017	420,000	—	—	137,760	10,848	568,608
	2016	40,385	684,000	940,375	—	150	1,664,910
Santiago Arroyo <i>Senior Vice President, Development and Chief Medical Officer(3)</i>	2018	442,346	1,660,600	—	189,000	13,480	2,305,426
	2017	257,231	619,200	1,291,065	144,320	9,213	2,321,029
Young Kwon <i>Chief Business Officer</i>	2018	411,796	1,742,100	—	202,400	13,378	2,369,674
Anthony Manning <i>Chief Scientific Officer</i>	2018	357,842	1,660,600	—	152,000	13,709	2,184,151

(1) Valuation based on the aggregate grant date fair value of option and restricted stock unit awards granted in 2018 computed in accordance with the Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718, Stock Compensation (excluding the effect of estimated forfeitures.) The aggregate grant date fair value of option and restricted stock unit awards does not correspond to the actual value that will be realized by the Named Executive upon vesting or exercise of such award. The assumptions used by us with respect to the valuation of option and restricted stock unit awards are set forth in Note 2 and Note 11 to our financial statements contained in our Annual Report on Form 10-K for year ended December 31, 2018, as filed with the Securities and Exchange Commission on February 22, 2019. The

amount included in the Stock Awards column in respect of PSUs granted in 2018 is \$0, which reflects an estimate of the probable outcome of the performance conditions as of the grant date for such award as determined under FASB ASC Topic 718. The grant date fair value of such PSUs based on the maximum outcome are set forth in the table below:

Name	Grant Date Fair Value of PSUs Based on Maximum Outcome of Performance Conditions
Craig A. Wheeler	\$5,255,490
Michelle Robertson	1,359,000
Santiago Arroyo	1,359,000
Young Kwon	1,359,000
Anthony Manning	1,359,000

(2) The following table sets forth information regarding all other compensation for the year ended December 31, 2018:

Name	Tax Advice Expense (\$)	Insurance Expense (\$)	Tax Gross-Up for		Parking/Transit (\$)	Gym Fees (\$)	Insurance Premiums (\$)	Severance Benefits	Total (\$)
			Insurance Premiums (\$)	401(k) Match (\$)					
Craig A. Wheeler	5,000	5,000	4,174	8,100	6,264	348	1,193	—	30,079
Michelle Robertson	—	—	—	8,100	4,080	241	1,095	—	13,516
Scott M. Storer	—	—	—	6,071	3,230	—	1,007	657,280	667,588
Santiago Arroyo	—	—	—	8,100	4,080	80	1,220	—	13,480
Young Kwon	—	—	—	8,100	4,080	—	1,198	—	13,378
Anthony Manning	—	—	—	8,100	4,080	348	1,181	—	13,709

2018 Grants of Plan-Based Awards

The following table sets forth information regarding awards made to our Named Executives during the year ended December 31, 2018:

Name	Type of Award(1)	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(2)		Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock (#)	All Other Option Awards: Number of Shares of Stock (#)	Exercise Price of Option Awards(7) (\$/Sh)	Grant Date Fair Value of Stock and Option Awards(8) (\$)
			Target (\$)	Maximum (\$)	Threshold (#)	Target (#)	Maximum (#)				
Craig A. Wheeler	AIBP		600,000	1,125,000							
	SO	2/12/2018(6)									
	RSU	2/12/2018(6)						98,750	197,500	16.30	1,590,566
	PSU	12/21/2018(5)			167,000	334,000	501,000				1,609,625
Michelle Robertson	AIBP		140,000	—							
	RSU	2/12/2018(3)						9,740			158,762
	RSU	10/17/2018(4)						39,000			588,900
	PSU	10/17/2018(5)			30,000	60,000	90,000				—
Scott M. Storer	AIBP		—	—							
	RSU	2/12/2018(3)						55,000			896,500
Santiago Arroyo	AIBP		180,000	—							
	RSU	2/12/2018(3)						50,000			815,000
	RSU	10/17/2018(4)						56,000			845,600
	PSU	10/17/2018(5)			30,000	60,000	90,000				—
Young Kwon	AIBP		176,000	—							
	RSU	2/12/2018(3)						55,000			896,500
	RSU	10/17/2018(4)						56,000			845,600
	PSU	10/17/2018(5)			30,000	60,000	90,000				—
Anthony Manning	AIBP		152,000	—							
	RSU	2/12/2018(3)						50,000			815,000
	RSU	10/17/2018(4)						56,000			845,600
	PSU	10/17/2018(5)			30,000	60,000	90,000				—

- (1) Type of Award:
AIBP = Annual Incentive Bonus Plan
PSU = Performance-Based Restricted Stock Unit Award
RSU = Restricted Stock Units
SO = Stock Option

- (2) All awards in these columns were granted under our annual incentive cash bonus plan. The actual amounts awarded are reported in the “Non-Equity Incentive Plan Compensation” column in the Summary Compensation Table above. See “Executive Compensation—Compensation Discussion and Analysis—Elements of Compensation—Annual Incentive Cash Bonus” for a description of this plan.
- (3) The restricted stock units vest as to 50% of the units on the one year anniversary of the grant date, and the remaining 50% of the units vest at the second year anniversary of the grant date, and are subject to accelerated vesting in the event the Named Executive’s employment with us is terminated without “cause” or the Named Executive resigns for “good reason” (as such terms are defined in the Named Executive’s employment agreement).
- (4) The restricted stock units vest as to 25% of the units on the one year anniversary of the grant date, and an additional 6.25% of the units vest at the end of each successive three-month period thereafter.
- (5) The PSUs are eligible to vest in amounts up to 150% of the target number of PSUs based on the Company’s achievement of up to three clinical or regulatory milestones prior to October 17, 2022. The PSUs vest as to: (i) 25% of the target number of PSUs on the date the first milestone is achieved; (ii) 25% of the target number of PSUs on the first anniversary of the date the first milestone is achieved; (iii) 25% of the target number of PSUs on the date the second milestone is achieved; (iv) 25% of the target number of PSUs on the first anniversary of the date the second milestone is achieved; (v) 25% of the target number of PSUs on the date the third milestone is achieved; and (vi) 25% of the target number of PSUs on the first anniversary of the date the third milestone is achieved, provided that if any milestone is achieved prior to October 17, 2019, the PSUs eligible to vest upon such achievement shall vest on October 17, 2019. In addition, the PSUs will accelerate with respect to 25% of the target number of PSUs as of the date of a Program Transfer (or as of October 17, 2019 if the Program Transfer occurs prior to October 17, 2019) and with respect to 25% of the target number of PSUs as of the first anniversary of the Program Transfer. The PSUs will also vest as to 150% of the target number of PSUs in the event of a termination without “cause” on or after October 17, 2019 and within 12 months following a change in control.
- (6) The shares of common stock underlying this option vest as to 25% of the shares on the one year anniversary of the grant date, and an additional 6.25% of the shares vest at the end of each successive three-month period thereafter.
- (7) The exercise price of the applicable stock option is equal to the closing price of our common stock as reported by The Nasdaq Global Select Market on the date of grant.
- (8) Valuation is based on the aggregate grant date fair value of restricted stock units and option awards computed in accordance with FASB ASC Topic 718. Amount for the PSUs granted reflects an estimate of the probable outcome of the performance conditions as of the grant date for such award. The aggregate grant date fair value of restricted stock units and option awards does not correspond to the actual value that will be realized by the Named Executive upon vesting or exercise of such award. The assumptions used by us with respect to the valuation of restricted stock units and option awards are set forth in Note 2 and Note 11 to our financial statements contained in our Annual Report on Form 10-K for year ended December 31, 2018, as filed with the Securities and Exchange Commission on February 22, 2019.

Outstanding Equity Awards at 2018 Year-End

The following table sets forth information regarding outstanding stock options and awards of restricted stock held by our Named Executives as of December 31, 2018:

Name	Option Awards				Stock Awards			
	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 (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested(1) (\$)
Craig A. Wheeler	100,000	—	15.37	2/18/2020	4,375(2)	48,300		
	100,000	—	13.26	2/22/2021	19,688(3)	217,356		
	150,000	—	15.44	2/14/2022	37,500(7)	414,000	75,000(7)	828,000
	150,000	—	12.58	2/19/2023	52,031(4)	574,422		
	140,000	—	17.96	2/18/2024	98,750(5)	1,090,200		
	131,250	8,750(9)	13.02	2/18/2025			167,000(8)	1,843,680
	86,625	39,375(10)	10.83	2/9/2026				
	80,937	104,063(11)	18.85	2/7/2027				
	—	197,500(12)	16.30	2/12/2028				
	Michelle Robertson	11,250	18,750(11)	15.50	5/11/2027	2,362(7)	26,076	4,725(7)
					9,740(5)	107,530		
					39,000(6)	430,560	30,000(8)	331,200
Scott M. Storer	62,500	62,500(10)	14.25	12/14/2026				
Santiago Arroyo	56,250	93,750(11)	17.20	6/20/2027	9,000(7)	99,360	18,000(7)	198,720
					50,000(5)	552,000		
					56,000(6)	618,240	30,000(8)	331,200
Young Kwon	11,500	—	13.26	2/22/2021	1,179(2)	13,016		
	10,800	—	12.58	2/19/2023	5,907(3)	65,213		
	4,822	—	17.96	2/18/2024	15,000(7)	165,600	30,000(7)	331,200
	17,367	2,358(9)	13.02	2/18/2025	12,685(4)	140,042		
	6,250	3,750(9)	21.56	8/11/2025	55,000(5)	607,200		
	25,987	11,813(10)	10.83	2/9/2026	56,000(6)	618,240		
	19,731	25,369(11)	18.85	2/7/2027			30,000(8)	331,200
Anthony Manning	28,437	—	12.58	2/19/2023	1,875(3)	20,700		
	21,614	—	17.96	2/18/2024	15,000(7)	165,600	29,999(7)	331,189
	20,693	1,479(9)	13.02	2/18/2025	6,750(4)	74,520		
	8,250	3,750(10)	10.83	2/9/2026	50,000(5)	552,000		
	10,500	13,500(11)	18.85	2/7/2027	56,000(6)	618,240	30,000(8)	331,200

- (1) Based on \$11.04 per share, the last sale price of Momenta common stock on December 31, 2018.
- (2) These shares of common stock are subject to a restricted stock agreement dated February 18, 2015, pursuant to which 25% of such shares vested and became free from forfeiture on February 18, 2016, and an additional 6.25% of the shares vest and become free from forfeiture at the end of each successive three-month period thereafter.
- (3) These shares of common stock are subject to a restricted stock agreement dated February 9, 2016, pursuant to which 25% of such shares vested and became free from forfeiture on February 9, 2017, and an additional 6.25% of the shares vest and become free from forfeiture at the end of each successive three-month period thereafter.
- (4) These shares of common stock are subject to a restricted stock unit agreement dated February 7, 2017, pursuant to which 25% of such units vested and became free from forfeiture on February 7, 2018, and an additional 6.25% of the units vest and become free from forfeiture at the end of each successive three-month period thereafter.
- (5) These shares of common stock are subject to a restricted stock unit agreement dated February 12, 2018, pursuant to which 50% of such units vested and became free from forfeiture on February 12, 2019, and for Mr. Wheeler the remaining 50% will vest an additional 6.25% at the end of each successive 3 month period thereafter and for the Named Executives other than Mr. Wheeler the remaining 50% of such units will vest and become free of forfeiture on February 12, 2020, and are subject to accelerated vesting in the event the Named Executive's employment with us is terminated without "cause" or the Named Executive resigns for "good reason" (as such terms are defined in the Named Executive's employment agreement).
- (6) These shares of common stock are subject to a restricted stock unit agreement dated October 17, 2018, pursuant to which 25% of such units vest and will become free from forfeiture on October 17, 2019, and an additional 6.25% of the units vest and become free from forfeiture at the end of each successive three-month period thereafter.
- (7) Represents performance-based restricted stock awards that vest based on the Company achieving up to two of three performance milestones on or before April 13, 2019, or June 20, 2020 for Dr. Arroyo. Upon achieving each of the first and second milestones, 25% of the shares will

vest on the later of the milestone achievement date and the first anniversary of the grant date, and an additional 25% of the shares will vest on the one year anniversary of such achievement date. The first milestone was achieved on February 13, 2018, such that a further 25% of the award also vested on February 13, 2019.

- (8) Represents PSUs. The PSUs are eligible to vest in amounts up to 150% of the target number of PSUs based on the Company's achievement of up to three clinical or regulatory milestones prior to October 17, 2022. The PSUs vest as to: (i) 25% of the target number of PSUs on the date the first milestone is achieved; (ii) 25% of the target number of PSUs on the first anniversary of the date the first milestone is achieved; (iii) 25% of the target number of PSUs on the date the second milestone is achieved; (iv) 25% of the target number of PSUs on the first anniversary of the date the second milestone is achieved; (v) 25% of the target number of PSUs on the date the third milestone is achieved; and (vi) 25% of the target number of PSUs on the first anniversary of the date the third milestone is achieved, provided that if any milestone is achieved prior to October 17, 2019, the PSUs eligible to vest upon such achievement shall vest on October 17, 2019. In addition, the PSUs will accelerate with respect to 25% of the target number of PSUs as of the date of a Program Transfer (or as of October 17, 2019 if the Program Transfer occurs prior to October 17, 2019) and with respect to 25% of the target number of PSUs as of the first anniversary of the Program Transfer. The PSUs will also vest as to 150% of the target number of PSUs in the event of a termination without "cause" on or after October 17, 2019 and within 12 months following a change in control.
- (9) The shares of common stock underlying these options vest as to 25% of the shares on February 18, 2015 (August 11, 2015 for one of Mr. Kwon's stock option grants expiring August 11, 2025) and an additional 6.25% of the shares vest at the end of each successive three-month period thereafter.
- (10) The shares of common stock underlying these options vest as to 25% of the shares on February 9, 2016 (December 14, 2016 as to Mr. Storer), and an additional 6.25% of the shares vest at the end of each successive three-month period thereafter.
- (11) The shares of common stock underlying these options vest as to 25% of the shares on February 7, 2017 (May 11, 2017 as to Ms. Robertson, and June 20, 2017 as to Mr. Arroyo), and an additional 6.25% of the shares vest at the end of each successive three-month period thereafter.
- (12) The shares of common stock underlying these options vest as to 25% of the shares on February 12, 2018, and an additional 6.25% of the shares vest at the end of each successive three-month period thereafter.

2018 Option Exercises and Stock Vested

The following table sets forth information regarding options exercised by our Named Executives and shares of restricted stock that vested and became free from forfeiture during the fiscal 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) (\$)
Craig A. Wheeler	125,666	1,151,968	115,594	2,072,276
Michelle Robertson	—	—	2,363	49,150
Scott M. Storer	—	—	79,000	1,163,500
Santiago Arroyo	—	—	9,000	200,700
Young Kwon	162,253	1,711,140	35,512	627,148
Anthony Manning	—	—	21,751	366,588

- (1) Value realized on exercise is based on the closing sale price of our common stock on the applicable date of exercise less the applicable option exercise price.
- (2) Value realized upon vesting is based on the closing sale price of our common stock on the applicable vesting date.

Employment, Severance and Change of Control Arrangements

Craig A. Wheeler Employment Agreement

On August 22, 2006, we entered into an employment agreement with Craig A. Wheeler, pursuant to which Mr. Wheeler serves as our President and CEO and as a member of the board of directors. In December 2010, Mr. Wheeler's employment agreement was amended.

Salary, Bonus and Benefits

Pursuant to his employment agreement, Mr. Wheeler receives an annual base salary determined by the compensation committee, which is \$750,000 for 2019. Mr. Wheeler is also eligible to receive bonuses of up to 150% of his base salary for the applicable fiscal year. Details of Mr. Wheeler's 2018 cash bonus are described above under the caption "Elements of Compensation—Annual Incentive Cash Bonus." Mr. Wheeler is also entitled to specified benefits, including: participation in our sponsored benefit programs; reimbursement for life and disability insurance premium expenses up to \$5,000 per year and related tax gross-up payments; and reimbursement of tax and financial advisor fees incurred by Mr. Wheeler, up to \$5,000 per year, during the period of his employment.

Payments Upon Termination by Reason of Death or Disability, Termination Without Cause or Resignation for Good Reason

Under Mr. Wheeler's employment agreement, Mr. Wheeler or Momenta may terminate Mr. Wheeler's employment at any time. In the event Mr. Wheeler's employment is terminated without cause by us, as the result of death or disability or Mr. Wheeler terminates his employment for good reason, other than in connection with a change of control, we have agreed to pay Mr. Wheeler a lump sum equal to:

- 12 months of Mr. Wheeler's highest base salary in effect during the 12 months prior to the date of termination; and
- an amount equal to the greater of 60% of such base salary or Mr. Wheeler's last paid bonus.

Additionally, Mr. Wheeler and his dependents will continue to receive benefits under the Company's medical and dental plans, or will receive comparable benefits, at subsidized rates to the same extent as active employees, for a maximum of 12 months following such termination subject to his re-employment with comparable benefits. In addition, any time-based equity awards that would have vested if Mr. Wheeler had remained employed for an additional 12 months and 25% of any unvested performance-based equity awards will fully and immediately vest.

Payments Upon Termination in Connection with a Change of Control

If Mr. Wheeler terminates his employment for good reason within 24 months following a change of control of Momenta, or if we terminate Mr. Wheeler's employment without cause within 24 months following a change of control, we have agreed to pay Mr. Wheeler a lump-sum cash payment equal to:

- 24 months of Mr. Wheeler's highest base-salary in effect during the 12 months prior to the date of termination;
- an amount equal to the greater of 60% of two years of such base salary or two times the last bonus paid to Mr. Wheeler; and
- if the aggregate purchase price paid in a change of control transaction equals or exceeds \$1.1 billion, an additional amount equal to 12 months of base salary in effect at the time of Mr. Wheeler's termination and the greater of 60% of one year of such base salary or the last bonus paid to Mr. Wheeler.

Additionally, Mr. Wheeler and his dependents will continue to receive benefits under the Company's medical and dental plans, or will receive comparable benefits for 24 months (or a maximum of 36 months if the purchase price of the transaction equals or exceeds \$1.1 billion) following such termination at subsidized rates to the same extent as active employees subject to his re-employment with comparable benefits. In addition, Mr. Wheeler is entitled to reimbursement for excise taxes due under Section 4999 of the Code (as well as income and employment taxes due on the reimbursement payment) following a change of control and, if terminated as described above after a change of control, the unvested portions of all stock-based awards shall fully and immediately vest.

Non-Competition, Non-Solicitation, Confidential Information and Developments

Our employment agreement with Mr. Wheeler also contains non-disclosure, non-competition and assignment of intellectual property terms. These terms provide for the protection of our confidential information and the transfer of ownership rights to intellectual property developed by Mr. Wheeler to us and a 12-month non-compete provision.

Executive Employment Agreements with Michelle Robertson, Santiago Arroyo, Young Kwon and Anthony Manning

We have also entered into executive employment agreements, as amended, or the Executive Employment Agreements, with Michelle Robertson, Santiago Arroyo, Young Kwon and Anthony Manning. In June 2017, the Executive Employment Agreements with each of Drs. Arroyo, Kwon and Manning were amended to explicitly provide that the Named Executive's rights thereunder to accelerated vesting of restricted stock in connection with certain employment terminations apply equally, as intended, to awards of restricted stock units. The Executive Employment Agreements with each of Ms. Robertson and Drs. Arroyo, Kwon and Manning provide for certain severance payments and benefits upon a qualifying termination, as described below, both during and outside of a change in control period.

Salary, Bonus and Benefits

Pursuant to the Executive Employment Agreements, we have agreed to pay Ms. Robertson and Drs. Arroyo, Kwon and Manning annual base salaries as determined by the compensation committee. If our board of directors approves an annual bonus, each of them will be eligible for a discretionary bonus award. The annual target for each executive's bonus is currently 40% of the executive's annualized base salary. The compensation committee will determine, in its sole discretion, whether (and in what amount) a bonus award is payable to each executive. In order to be eligible for any bonus hereunder, the executive must be an active employee of the Company on the date such bonus is paid.

Each executive is entitled to participate in all benefit plans and programs that we establish and make available to our employees to the extent that the executive is eligible under (and subject to the provisions of) the plan documents governing those programs.

Payments Upon Resignation by the Executive Without Good Reason or Termination by Us for Cause

The Executive Employment Agreements with each of Ms. Robertson and Drs. Arroyo, Kwon and Manning specify that if the executive voluntarily resigns his employment other than for good reason (as defined in each Executive Employment Agreement), or if we terminate the executive for cause (as defined in each Executive Employment Agreement), we will pay the executive all accrued and unpaid base salary through the executive's date of termination and any vacation that is accrued but unused as of such date. The executive will not be eligible for any severance or separation payments or any continuation of benefits (other than those provided for under COBRA), or any other compensation pursuant to the Executive Employment Agreement or otherwise. The executive will also have such

rights, if any, with respect to outstanding stock options and restricted stock grants as may be provided under each applicable award agreement.

Payments Upon Termination by Reason of Death or Disability, Termination Without Cause or Resignation for Good Reason

Pursuant to the Executive Employment Agreements with each of Ms. Robertson and Drs. Arroyo, Kwon and Manning, if the executive's employment with us is terminated by reason of the executive's death or disability (as defined in each Executive Employment Agreement), by us without cause, or by the executive's voluntary resignation for good reason, other than in connection with a change of control (as defined in each Executive Employment Agreement), then the executive will be paid all accrued and unpaid base salary and any accrued but unused vacation through the date of termination. In addition, the executive will be eligible to receive the following separation benefits:

- an amount equal to the sum of 12 months of the executive's base salary as of the date of termination and the greater of (i) the annual discretionary target bonus established by our board of directors (or any other person or persons having authority with respect thereto) for the executive for the fiscal year in which the date of termination occurs or (ii) the annual bonus paid to the executive for the most recently completed fiscal year;
- insurance, medical, dental, health and accident and disability benefits as in effect immediately prior to the termination date for a period of 12 months; and
- continued vesting of any unvested stock options for a period of 12 months from the date of termination and an extension of the right to exercise any outstanding stock options through the earlier of three months after such 12-month period or the original expiration date of the applicable stock option. The executive will also be entitled to immediate vesting, on the date of termination, of any restricted stock and restricted stock unit awards with underlying shares that vest solely through the passage of time (i.e., service-based vesting) and not upon the achievement of specified conditions or milestones (i.e., performance-based vesting), in each case that would have vested during the period of 12 months from the date of termination.

Payments Upon Termination in Connection with a Change of Control

If the executive's employment with the Company is terminated without cause or if the executive terminates his employment with good reason, in each case, within one year following a change of control (as defined in each Executive Employment Agreement), the executive will be entitled to all accrued and unpaid base salary and any accrued but unused vacation through the date of termination. In addition, the executive will be eligible to receive the following separation benefits:

- an amount equal to the sum of 12 months of the executive's base salary as of the date of termination and the greater of (i) the annual discretionary target bonus established by our board of directors (or any other person or persons having authority with respect thereto) for the executive for the fiscal year in which the date of termination occurs or (ii) the annual bonus paid to the executive for the most recently completed fiscal year;
- insurance, medical, dental, health and accident and disability benefits as in effect immediately prior to the termination date for a period of 12 months; and
- immediate vesting of any unvested stock options, restricted stock, restricted stock units and any other outstanding equity-based awards. All such equity awards will remain exercisable in accordance with the applicable stock option plan or grant agreement.

Non-Competition, Non-Solicitation, Confidential Information and Developments

Each of the executives have entered into agreements providing for the protection of our confidential information, the transfer of ownership rights to intellectual property developed by each such executive to us and a 12-month non-compete provision.

February 2018 RSUs and 2018 PSUs

The restricted stock units granted to our Named Executives other than Mr. Wheeler in February 2018 (the “February 2018 RSUs”) and the PSUs granted in 2018 (the “2018 PSUs”) are subject to accelerated vesting in the event of certain terminations. The February 2018 RSUs vest in full in the event the Named Executive’s employment with us is terminated without “cause” or the Named Executive resigns for “good reason” (as such terms are defined in the Named Executive’s employment agreement). The Retirement Policy does not apply to the February 2018 RSUs. The 2018 PSUs will vest as to 150% of the target number of PSUs in the event the Named Executive is terminated without “cause” (as defined in the award agreement) on or after the first anniversary of the grant date and within 12 months following a change in control.

Separation Agreement with Scott M. Storer

As part of the Restructuring, Mr. Storer was terminated without cause, effective October 5, 2018. In connection with his termination, we entered into a separation and mutual release agreement with Mr. Storer pursuant to which he became entitled to receive the payments and benefits set forth in his employment agreement, as follows: (i) cash payment equal to 12 months of his base salary at the time of termination, payable in 12 equal monthly installments, commencing December 4, 2018, (ii) a one-time lump sum cash payment equal to the greater of (x) the annual discretionary target bonus for fiscal year 2018 and (y) the annual bonus paid to him for fiscal year 2017, (iii) payment of COBRA premiums for up to 12 months following termination, and (iv) continued coverage under the company’s life insurance, accident and disability plans for up to 12 months following termination. Pursuant to Mr. Storer’s agreement, Mr. Storer also became entitled to receive \$237,280, payable in 12 equal monthly installments, of which all remaining amounts as of February 22, 2019 were paid in a lump sum at such time. The actual amount accrued in 2018 is included in the “All Other Compensation” column of the Summary Compensation Table for 2018 above. Under the agreement, Mr. Storer is also entitled to (i) continued vesting of any unvested stock options for a period of 12 months from his termination date and (ii) immediate vesting of any unvested time-, but not performance-, based restricted stock and restricted stock unit awards which would vest within 12 months from his termination date.

Potential Termination and Change of Control Payments

Potential Termination and Change of Control Payments for Craig A. Wheeler

The following table summarizes the potential payments, benefits and acceleration of vesting applicable to stock options, restricted stock and restricted stock unit awards under our employment agreement with Mr. Wheeler. The amounts shown below assume that the termination of Mr. Wheeler

was effective as of December 31, 2018. Actual amounts payable to Mr. Wheeler upon his termination can only be determined definitively at the time of his actual departure.

<u>Benefit</u>	<u>Voluntary Termination or Termination for Cause (\$)</u>	<u>Termination Without Cause, Termination by Reason of Death or Disability, or Resignation for Good Reason (\$)</u>	<u>Termination Without Cause or Resignation for Good Reason Within 24 Months of a Change of Control (\$)</u>
<i>Accrued Obligations</i>			
Unused Vacation	121,148	121,148	121,148
<i>Severance Benefits</i>			
Lump-sum cash payment	—	1,230,000(2)	2,460,000(3)
Lump-sum payment with respect to business combination	—	—	1,230,000(4)
Insurance/Healthcare benefits	—	20,508(5)	61,524(6)
<i>Market Value of Stock Vesting on Termination(1)</i>		974,007(7)	8,711,586(8)
<i>Gross-Up Payments</i>	—	—	6,638,532(9)
Total	<u>121,148</u>	<u>2,345,663</u>	<u>19,222,290</u>

- (1) Based on the last sale price of our common stock on December 31, 2018, which was \$11.04 per share.
- (2) Represents a lump sum payment equal to 12 months of the highest base salary in effect for Mr. Wheeler during the 12 months prior to his termination, or \$750,000, plus an amount equal to his last paid bonus, or \$480,000. This amount is to be paid in full six months and one day after the date of Mr. Wheeler's termination.
- (3) Represents a lump sum payment equal to 24 months of the highest base salary in effect for Mr. Wheeler during the 12 months prior to his termination, or \$1,500,000, plus an amount equal to two times Mr. Wheeler's last paid bonus, or \$960,000. This amount is to be paid in full six months and one day after the date of Mr. Wheeler's termination.
- (4) Assumes that the change of control involves a business combination with an aggregate purchase price exceeding \$1.1 billion. In such event, Mr. Wheeler is entitled to an additional lump sum payment equal to 12 months of the highest base salary in effect for Mr. Wheeler during the 12 months prior to his termination, or \$750,000, plus an amount equal to his last paid bonus, or \$480,000.
- (5) Represents benefits payable over 12 months for continuation of coverage under medical and dental plans for Mr. Wheeler and his dependents subject to Mr. Wheeler's re-employment with comparable healthcare benefits. The value is based upon the type of insurance coverage we carried for Mr. Wheeler as of December 31, 2018 and is valued at the premiums in effect on December 31, 2018.
- (6) Assumes that the change of control involves a business combination with an aggregate purchase price exceeding \$1.1 billion, and represents benefits payable over 36 months for continuation of coverage under medical and dental plans for Mr. Wheeler and his dependents subject to Mr. Wheeler's re-employment with comparable healthcare benefits. In the event the aggregate purchase price is less than \$1.1 billion, Mr. Wheeler would be entitled to 24 months continuation of coverage under medical and dental plans for Mr. Wheeler and his dependents subject to

Mr. Wheeler's re-employment with comparable healthcare benefits, with a value equal to \$41,016. This value is based upon the type of insurance coverage we carried for Mr. Wheeler as of December 31, 2018 and is valued at the premiums in effect on December 31, 2018.

- (7) Represents the acceleration of vesting of: 125,250 shares of common stock subject to a performance stock unit agreement between us and Mr. Wheeler dated December 21, 2018; 24,687 shares of common stock subject to a restricted stock unit agreement between us and Mr. Wheeler dated February 12, 2018; 5,781 shares of common stock subject to a restricted stock unit agreement between us and Mr. Wheeler dated February 7, 2017; 37,500 shares of common stock subject to a performance stock award agreement between us and Mr. Wheeler dated April 13, 2016; 3,938 shares of common stock subject to a restricted stock agreement between us and Mr. Wheeler dated February 9, 2016; 4,375 shares of common stock subject to a restricted stock agreement between us and Mr. Wheeler dated February 18, 2015; and 31,500 shares of common stock underlying stock options granted to Mr. Wheeler dated February 9, 2016. See the discussion in this proxy statement under the heading "Employment, Severance and Change of Control Arrangements—Craig A. Wheeler Employment Agreement."
- (8) Represents the acceleration of vesting of: 501,000 shares of common stock subject to a performance stock unit agreement between us and Mr. Wheeler dated December 21, 2018; 98,750 shares of common stock subject to a restricted stock unit agreement between us and Mr. Wheeler dated February 12, 2018; 52,031 shares of common stock subject to a restricted stock unit agreement between us and Mr. Wheeler dated February 7, 2017; 112,500 shares of common stock subject to a performance stock award agreement between us and Mr. Wheeler dated April 13, 2016; 19,688 shares of common stock subject to a restricted stock agreement between us and Mr. Wheeler dated February 9, 2016; 4,375 shares of common stock subject to a restricted stock agreement between us and Mr. Wheeler dated February 18, 2015; and 39,375 shares of common stock underlying stock options granted to Mr. Wheeler dated February 9, 2016. See the discussion in this proxy statement under the heading "Employment, Severance and Change of Control Arrangements—Craig A. Wheeler Employment Agreement."
- (9) Represents the gross-up payable in respect of the excise tax under section 4999 of the United States Internal Revenue Code.

In addition, if Mr. Wheeler had retired on December 31, 2018, the value of the benefits received under the Retirement Policy, calculated by multiplying the number of shares subject to the portion of Mr. Wheeler's stock options and restricted stock units that would have vested during the 12 months following his retirement by (i) for stock options, the excess, if any, of the closing price of our common stock on December 31, 2018, which was \$11.04, over the applicable per share option exercise price, or (ii) for restricted stock units, \$11.04, would have been \$342,982.

Potential Termination and Change of Control Payments for Ms. Robertson and Drs. Arroyo, Kwon and Manning

The following table summarizes the potential payments, benefits and acceleration of vesting applicable to stock options, restricted stock and restricted stock unit awards under our Executive Employment Agreements with each of Ms. Robertson and Drs. Arroyo, Kwon and Manning. The amounts shown below assume that the termination of each executive was effective as of December 31, 2018, and that each of the Executive Employment Agreements was effective as of December 31, 2018.

Actual amounts payable to each Named Executive listed below upon his or her termination can only be determined definitively at the time of each Named Executive's actual departure.

<u>Name</u>	<u>Benefit</u>	<u>Voluntary Termination or Termination for Cause (\$)</u>	<u>Termination for Death, Disability, Without Cause or for Good Reason Other than in Connection with Change of Control (\$)</u>	<u>Termination Without Cause or Resignation for Good Reason Within 12 Months of a Change of Control (\$)</u>
Michelle Robertson . . .	<i>Accrued Obligations</i>			
	Unused Vacation	\$33,579	\$ 33,579	\$ 33,579
	<i>Severance Benefits</i>			
	Lump Sum Cash Severance	—	497,000(2)	497,000(2)
	Insurance/Healthcare Benefits	—	20,508(3)	20,508(3)
	<i>Market Value of Stock Vesting on Termination(1)</i>	—	79,852(4)	185,770(5)
	Total	\$33,579	\$ 630,939	\$ 736,857
Santiago Arroyo	<i>Accrued Obligations</i>			
	Unused Vacation	\$27,115	\$ 27,115	\$ 27,115
	<i>Severance Benefits</i>			
	Lump Sum Cash Severance	—	639,000(2)	639,000(2)
	Insurance/Healthcare Benefits	—	20,508(3)	20,508(3)
	<i>Market Value of Stock Vesting on Termination(1)</i>	—	375,360(4)	850,080(5)
	Total	\$27,115	\$1,061,983	\$1,536,703
Young Kwon	<i>Accrued Obligations</i>			
	Unused Vacation	48,231	48,231	48,231
	<i>Severance Benefits</i>			
	Lump Sum Cash Severance	—	642,400(2)	642,400(2)
	Insurance/Healthcare Benefits	—	21,048(3)	21,408(3)
	<i>Market Value of Stock Vesting on Termination(1)</i>	—	512,360(4)	1,324,753(5)
	Total	\$48,231	\$1,224,039	\$2,036,792
Anthony Manning	<i>Accrued Obligations</i>			
	Unused Vacation	30,692	30,692	30,692
	<i>Severance Benefits</i>			
	Lump Sum Cash Severance	—	532,000(2)	532,000(2)
	Insurance/Healthcare Benefits	—	13,092(3)	13,092(3)
	<i>Market Value of Stock Vesting on Termination(1)</i>	—	454,639(4)	1,144,796(5)
	Total	\$30,692	\$1,030,423	\$1,720,580

(1) Based on the last sale price of our common stock on December 31, 2018, which was \$11.04 per share.

(2) Represents 12 months of the Named Executive's annual base salary. The amount shown also includes the Named Executive's target bonus for 2018. Such amounts are to be paid within 30 days after the Named Executive's termination date. For more information relating to compensation earned by our Named Executives, see the section of this proxy statement entitled "Executive Compensation—Summary Compensation Table."

(3) Represents amounts payable over 12 months for continuation of coverage for insurance, medical, dental, health and accident and disability benefits for each Named Executive and his or her family members subject to the Named Executive's re-employment with comparable healthcare benefits. The value is based upon the type of insurance coverage we carried for each Named Executive as of December 31, 2018 and is valued at the premiums in effect on December 31, 2018. For more information relating to compensation earned by our Named Executives, see the section of this proxy statement entitled "Executive Compensation—Summary Compensation Table."

- (4) Represents continued vesting for an additional 12-month period of all unvested stock options, and 12 months' accelerated vesting of all other time-based restricted stock and restricted stock unit awards held by the Named Executives as of December 31, 2018. For more information concerning option, restricted stock and restricted stock unit awards held by our Named Executives, see the section of this proxy statement entitled "Executive Compensation—Outstanding Equity Awards at 2018 Year End."
- (5) Represents immediate vesting of all unvested equity awards held by the Named Executives as of December 31, 2018. For more information concerning equity awards held by our Named Executives, see the section of this proxy statement entitled "Executive Compensation—Outstanding Equity Awards at 2018 Year End."

Effective October 5, 2018, Mr. Storer ceased his employment with the Company and received the severance payments and benefits described above under "Arrangement with Scott M. Storer."

CEO Pay Ratio

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and Item 402(u) of Regulation S-K, we are providing the following information regarding the relationship of the annual total compensation of our employees and the annual total compensation of Mr. Wheeler, our CEO.

During 2018, we engaged Radford to assist us in identifying our median employee and determining the ratio of our median employee's annual total compensation to the annual total compensation of our CEO as required under Item 402(u) of Regulation S-K. With the assistance of Radford, we identified the median employee from among those employees who were employed by us on December 31, 2018 (excluding our CEO) based on a consistently applied compensation measure comprised of annual base salaries as of that date, target bonus for 2018, and the grant date fair value of equity awards granted in 2018 determined in accordance with FASB ASC Topic 718 (excluding the effect of estimated forfeitures). We included all employees, whether employed on a full-time, part-time or seasonal basis, as of December 31, 2018, which yielded a total employee population of approximately 128 individuals, all of whom were located in the United States. We did not make any cost-of-living or other adjustments to employee compensation and did not annualize the compensation of any employees who were employed for less than the full year.

For 2017, we determined our median employee as of October 1, 2017. We utilized December 31, 2018 this year as we underwent a restructuring as of October 5, 2018, pursuant to which we reduced our workforce by approximately 50% over October to December of 2018. Accordingly, a determination as of December 31, 2018 is much more representative of our current workforce.

After identifying the median employee as described above, we calculated the 2018 annual total compensation for such employee using the same methodology we used for our Named Executives as set forth in the Summary Compensation Table for 2018.

For 2018, the combined annual total compensation for our CEO was \$4,632,770, and for our median employee was \$175,536, resulting in an estimated pay ratio of 26:1. The annual total compensation for our CEO in the pay ratio disclosure differs from the total compensation reflected in the Summary Compensation Table for 2018 because we included the value of company paid health and welfare benefits, estimated at \$22,500.

We consider the pay ratio reported above to be a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K based on our internal records and the methodology described above. The rules for identifying the median employee and calculating the pay ratio based on that employee's annual total compensation 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. Therefore, the pay ratio reported by other companies may not be comparable to the pay ratio reported above, as other companies have different employee populations and compensation practices and may utilize different methodologies, exclusions, estimates and assumptions.

DIRECTOR COMPENSATION

Non-employee director compensation is set by our board of directors at the recommendation of the compensation committee. Our 2018 compensation for non-employee directors consisted of:

Annual Grant of Options and Restricted Stock Units. Non-employee directors who served on our board of directors during the prior calendar year and who continue to serve on the board of directors are granted, on the date of the board meeting coinciding with the annual meeting of stockholders, an option to purchase shares of our common stock and restricted stock units. The number of shares subject to the option and the number of restricted stock units is determined annually by the board of directors so that total value of the award targets the 50th percentile of the total value of equity grants made by our peer group companies to their respective directors on an individual director basis and is comprised equally of stock options and restricted stock units. In 2018, we granted 8,855 options and 4,356 restricted stock units to each of our non-employee directors on the date of our 2018 annual meeting. These options and restricted stock units vest in full on the first anniversary of the grant date, subject to the non-employee director's continued service to the Company.

Payment of Retainer Fee; Reimbursement of Travel and Other Expenses. In addition to equity grants, each non-employee director receives an annual retainer for his or her service on our board of directors as well as additional fees for committee service as follows:

	<u>Fees (\$)</u>
Annual Retainer	50,000
Non-Employee Chairman of the Board	30,000
Audit Committee Chair	20,000
Audit Committee Members (other than the Chair)	12,500
Compensation Committee Chair	15,000
Compensation Committee Members (other than the Chair)	10,000
Nominating and Corporate Governance Committee Chair	12,000
Nominating and Corporate Governance Committee Members (other than the Chair)	7,000
Science Committee Chair	17,500
Science Committee Members	12,500
Science Committee, Chair and Members	3,000 for each all-day session attended (up to a maximum of \$15,000 per year), which is in addition to the standard quarterly meetings of the Science Committee

All retainer amounts are paid quarterly in arrears. Non-employee directors also received reimbursement for reasonable travel and other expenses in connection with attending meetings of our board of directors.

The following table sets forth the fees earned by each of our non-employee directors for his or her service on the board of directors and the aggregate grant date fair value of option and restricted stock unit awards granted to our non-employee directors for the year ended December 31, 2018:

2018 Director Compensation

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)(1)</u>	<u>Stock Awards (\$)(2)</u>	<u>Option Awards (\$)(2)</u>	<u>Total (\$)</u>
James R. Sulat	84,500	97,139	96,964	278,603
Georges Gemayel	74,500	97,139	96,964	268,603
Bruce L. Downey	90,000	97,139	96,964	284,103
Thomas P. Koestler	75,000	97,139	96,964	269,103
Corey N. Fishman	77,000	97,139	96,964	271,103
Elizabeth Stoner	74,500	97,139	96,964	268,603
Steven C. Gilman	72,500	97,139	96,964	266,603
Jose-Carlos Gutiérrez-Ramos	72,500	97,139	96,964	266,603

- (1) The fees earned by the non-employee directors in 2018 consist of the following: (i) an annual retainer; (ii) a fee to the non-employee chairman of the board; and (iii) an annual fee for chairing and being a member of each of the audit, compensation, nominating and corporate governance and science committees.
- (2) Valuation of these awards is based on the aggregate grant date fair value computed in accordance with FASB ASC Topic 718, Stock Compensation (excluding the effect of estimated forfeitures). These amounts do not correspond to the actual value that will be realized by the director upon vesting or exercise of such award. The assumptions used by us with respect to the valuation of restricted stock unit and option awards are set forth in Note 2 and Note 11 to our financial statements contained in our Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission on February 22, 2019. The following table shows the aggregate number of stock option, restricted shares and restricted stock units outstanding for each non-employee director as of December 31, 2018:

<u>Name</u>	<u>Aggregate Number of Shares Subject to Outstanding Stock Options(#)</u>	<u>Aggregate Number of Restricted Shares Outstanding(#)</u>	<u>Aggregate Number of Restricted Stock Units Outstanding(#)</u>
James Sulat	137,812	—	4,356
Georges Gemayel	50,062	—	4,356
Bruce L. Downey	154,812	—	4,356
Thomas P. Koestler	132,062	—	4,356
Corey N. Fishman	53,062	—	4,356
Elizabeth Stoner	107,812	—	4,356
Steven C. Gilman	53,062	—	4,356
Jose-Carlos Gutiérrez-Ramos	50,062	—	4,356

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information regarding beneficial ownership of our common stock as of April 18, 2019, by:

- each person, or group of affiliated persons, known to us to be the beneficial owner of more than 5% of the outstanding shares of our common stock as of such date based on currently available Schedules 13D and 13G filed with the Securities and Exchange Commission;
- each of our directors (which includes all nominees);
- our Named Executives; and
- all of our directors and executive officers as a group.

The number of shares of common stock beneficially owned by each person or entity is determined in accordance with the applicable rules of the Securities and Exchange Commission and includes voting or investment power with respect to shares of our common stock. The information is not necessarily indicative of beneficial ownership for any other purpose. Shares of our common stock issuable under stock options exercisable on or before June 17, 2019, are deemed beneficially owned for computing the percentage ownership of the person holding the options, but are not deemed outstanding for computing the percentage ownership of any other person. Unless otherwise indicated, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares of common stock, except to the extent authority is shared by spouses under community property laws. Unless otherwise indicated, the address of all directors and executive officers is c/o Momenta Pharmaceuticals, Inc., 301 Binney Street, Cambridge, Massachusetts 02142. The inclusion of any shares

deemed beneficially owned in this table does not constitute an admission of beneficial ownership of those shares.

<u>Name and Address of Beneficial Owner</u>	<u>Total Number of Shares Beneficially Owned</u>	<u>Percentage of Common Stock Beneficially Owned(1)</u>
<i>Holders of more than 5% of our Common Stock</i>		
FMR LLC 245 Summer Street Boston, MA 02210	14,770,728(2)	15.0%
BlackRock, Inc. 55 East 52 nd Street New York, NY 10055	13,775,141(3)	14.0%
The Vanguard Group 100 Vanguard Blvd. Malvern, PA 19355	10,030,269(4)	10.2%
Wellington Management Group LLP 280 Congress Street Boston, MA 02210	7,352,094(5)	7.5%
T. Rowe Price Associates, Inc. 100 E. Pratt Street Baltimore, MD 21202	5,629,580(6)	5.7%
<i>Directors (including all nominees) and Named Executives</i>		
Bruce L. Downey	154,191(7)	*
Corey N. Fishman	44,448(8)	*
Georges Gemayel	50,941(9)	*
Steven C. Gilman	44,905(10)	*
Jose-Carlos Gutiérrez-Ramos	46,941(11)	*
Thomas P. Koestler	134,441(12)	*
Elizabeth Stoner	128,596(13)	*
James R. Sulat	168,691(14)	*
Craig A. Wheeler	1,563,303(15)	1.6
Michelle Robertson	21,801(16)	*
Santiago Arroyo	87,428(17)	*
Young Kwon	208,971(18)	*
Anthony Manning	142,224(19)	*
Scott Storer	99,656(20)	*
<i>All current directors and executive officers as a group (16 persons) . .</i>	3,312,124(21)	3.4

* Less than 1% of our outstanding common stock.

- (1) Applicable percentage of ownership for each holder is based on 98,609,733 shares of common stock outstanding on April 18, 2019, plus any common stock equivalents and presently exercisable stock options held by each such holder, and options held by each such holder that will become exercisable as of June 17, 2019.
- (2) Information is based on a Schedule 13G/A filed by FMR LLC, Abigail P. Johnson and Fidelity Growth Company Fund on February 13, 2019, and is as of December 31, 2018. According to the Schedule 13G/A,

FMR LLC has sole voting power over 4,857,239 shares and sole dispositive power over all 14,770,728 shares, Abigail P. Johnson does not have voting power over any shares and has sole dispositive power over all 14,770,728 shares, and Fidelity Growth Company Fund has sole voting power over 6,168,329 shares and does not have dispositive power over any shares.

- (3) Information is based on a Schedule 13G/A filed by BlackRock, Inc. on January 31, 2019, and is as of December 31, 2018. According to the Schedule 13G/A, BlackRock, Inc. has sole voting power over 13,616,426 of such shares and sole dispositive power over all 13,775,141 shares.
- (4) Information is based on a Schedule 13G/A filed by The Vanguard Group on February 11, 2019, and is as of December 31, 2018. According to the Schedule 13G/A, The Vanguard Group has sole voting power with respect to 166,650 shares, sole dispositive power with respect to 9,862,730 shares, shared voting power with respect to 10,489 shares, and shared dispositive power with respect to 167,539 shares.
- (5) Information is based on a Schedule 13G/A filed by Wellington Management Group LLP on February 12, 2019, and is as of December 31, 2018. According to the Schedule 13G/A, Wellington Management Group LLP, Wellington Investment Advisors Holdings LLP, and Wellington Group Holdings LLP have shared voting over 6,717,252 shares and shared dispositive power over all 7,352,094 shares. Wellington Management Company LLP has shared voting power over 6,476,721 shares and shared dispositive power over 6,718,357 shares.
- (6) Information is based on a Schedule 13G filed by T. Rowe Price Associates, Inc. on February 14, 2019, and is as of December 31, 2018. According to the Schedule 13G, T. Rowe Price Associates Inc. has sole voting power with respect to 1,069,460 share and sole dispositive power with respect to all 5,629,580 shares.
- (7) Consists of 28,234 shares of common stock and 125,957 shares of common stock underlying options exercisable on or before June 17, 2019.
- (8) Consists of 5,734 shares of common stock and 38,714 shares of common stock underlying options exercisable on or before June 17, 2019.
- (9) Consists of 9,734 shares of common stock and 41,207 shares of common stock underlying options exercisable on or before June 17, 2019.
- (10) Consists of 3,440 shares of common stock and 41,465 shares of common stock underlying options exercisable on or before June 17, 2019.
- (11) Consists of 5,734 shares of common stock, and 41,207 shares of common stock underlying options exercisable on or before June 17, 2018.
- (12) Consists of 11,234 shares of common stock and 123,207 shares of common stock underlying options exercisable on or before June 17, 2019.
- (13) Consists of 29,639 shares of common stock and 98,957 shares of common stock underlying options exercisable on or before June 17, 2019.
- (14) Consists of 39,734 shares of common stock and 128,957 shares of common stock underlying options exercisable on or before June 17, 2019.
- (15) Consists of 15,750 shares of common stock held directly and 487,444 shares of common stock held by trust, of which 15,750 are unvested shares of restricted stock, 1,048,156 shares of common stock underlying options exercisable on or before June 17, 2019 and 11,953 shares of common stock underlying restricted stock units vesting on or before June 17, 2019.
- (16) Consists of 6,801 shares of common stock and 15,000 shares of common stock underlying options exercisable on or before June 17, 2019.

- (17) Consists of 21,803 shares of common stock and 65,625 shares of common stock underlying options exercisable on or before June 17, 2019.
- (18) Consists of 95,883 shares of common stock, of which 4,726 are unvested shares of restricted stock, 111,678 shares of common stock underlying options exercisable on or before June 17, 2019 and 1,410 shares of common stock underlying restricted stock units vesting on or before June 17, 2019.
- (19) Consists of 46,001 shares of common stock, of which 1,500 are unvested shares of restricted stock, 95,473 shares of common stock underlying options exercisable on or before June 17, 2019 and 750 shares of common stock underlying restricted stock units vesting on or before June 17, 2019.
- (20) Consists of 21,531 shares of common stock and 78,125 shares of common stock underlying options exercisable on or before June 17, 2019.
- (21) Consists of an aggregate of 943,117 shares of common stock, of which 31,428 shares are unvested shares of restricted stock, 2,352,837 shares of common stock underlying options exercisable on or before June 17, 2019, and 16,170 shares of common stock underlying restricted stock units vesting on or before June 17, 2019.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, certain officers (“Section 16 Officers”) and the holders of more than 10% of our common stock to file with the Securities and Exchange Commission initial reports of ownership of our common stock and other equity securities on a Form 3 and reports of changes in such ownership on a Form 4 or Form 5. Officers, directors and 10% stockholders are required by Securities and Exchange Commission regulations to furnish us with copies of all Section 16(a) forms they file. Based solely on our review of copies of Section 16(a) reports furnished to us and representations made to us, we believe that during 2018, our Section 16 Officers, directors and holders of more than 10% of our common stock complied with all Section 16(a) filing requirements, except that the following forms were filed late: one Form 4 (reporting three transactions) for Thomas P. Koestler; one Form 4 (reporting three transactions) for Corey N. Fishman; and one Form 4 (reporting two transactions) for Elizabeth Stoner.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides information about the securities authorized for issuance under our equity compensation plans as of December 31, 2018:

<u>Plan Category</u>	<u>Number of securities to be issued upon exercise of outstanding options (a)(#)</u>	<u>Weighted-average exercise price of outstanding options (b)(\$)</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a)) (c)(#)</u>
Equity compensation plans approved by security holders(1)(2)(3)	4,958,026	15.22	6,817,969(4)
Equity compensation plans not approved by security holders	—	—	—
Total	<u>4,958,026</u>	15.22	<u>6,817,969(4)</u>

- (1) Includes information regarding the following equity compensation plans: 2013 Incentive Award Plan, as amended and restated, 2004 Stock Incentive Plan, as amended, and the 2004 Employee Stock Purchase Plan, as amended and restated. As of December 31, 2018, there were 616,532 shares of restricted stock and 2,884,054 restricted stock units outstanding under the 2013 Incentive Award Plan, as amended and restated, and the 2004 Stock Incentive Plan, as amended.
- (2) Since the approval of our 2004 Stock Incentive Plan, we have not granted further awards under the Amended and Restated 2002 Stock Incentive Plan.
- (3) Since the approval of the 2013 Incentive Award Plan, we have not granted further awards under our 2004 Stock Incentive Plan, as amended.
- (4) Includes 1,497,040 shares available under the 2004 Employee Stock Purchase Plan, as amended and restated. As of December 31, 2018, there were 15,625 shares of common stock subject to purchase under such plan.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Policies and Procedures for Related Person Transactions

Our board of directors has adopted written policies and procedures for the review of any transaction, arrangement or relationship in which we are a participant, the amount involved exceeds \$120,000, and one of our executive officers, directors, director nominees or 5% stockholders (or their immediate family members), each of whom we refer to as a “related person,” has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a “related person transaction,” the related person must report the proposed related person transaction to our General Counsel. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by our audit committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the audit committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chair of the audit committee to review and, if deemed appropriate, approve proposed related person transactions that arise between committee meetings, subject to ratification by the audit committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the audit committee after full disclosure of the related person’s interest in the transaction. As appropriate for the circumstances, the audit committee will review and consider:

- the related person’s interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person’s interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

Our audit committee may approve or ratify the transaction only if the audit committee determines that, under all of the circumstances, the transaction is in our best interests. Our audit committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the Securities and Exchange Commission’s related person transaction disclosure rule, our board of directors has determined that the following transactions, among others, do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising solely from the related person’s position as an executive officer of another entity (whether or not the person is also a director of such entity), that is a participant in the transaction, where (a) the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, (b) the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction, and (c) the amount involved in the transaction

equals less than the greater of \$200,000 or 5% of the annual gross revenues of the company receiving payment under the transaction; and

- a transaction that is specifically contemplated by provisions of our charter or by-laws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by our compensation committee in the manner specified in its charter.

We will disclose the terms of related person transactions in our filings with the Securities and Exchange Commission to the extent required. Since January 1, 2018, except for agreements described in this proxy statement or our other filings with the Securities and Exchange Commission, we have not been a party to, and we have no plans to be a party to, any transaction or series of similar transactions in which the amount involved exceeded or will exceed \$120,000 and in which any executive officer, director, director nominee, holder of more than 5% of our capital stock, or any member of the immediate family of any of the foregoing, had or will have a direct or indirect material interest.

Separation Agreements with Former Executive Officers

As part of the Restructuring, we terminated without cause, effective October 5, 2018, Bruce A. Leicher, our former Senior Vice President, General Counsel and Secretary, and Ganesh V. Kaundinya, our former Chief Operating Officer and Chief Scientific Officer. In connection with their terminations, we entered into a separation and mutual release agreement with each of Mr. Leicher and Dr. Kaundinya pursuant to which each became entitled to receive the payments and benefits set forth in his respective employment agreement, as follows: (i) a cash payment equal to 12 months of his base salary at the time of termination, payable in 12 equal monthly installments, commencing December 14, 2018, (ii) a one-time lump sum cash payment equal to the greater of (x) the annual discretionary target bonus for fiscal year 2018 and (y) the annual bonus paid to him for fiscal year 2017, (iii) payment of COBRA premiums for up to 12 months following termination, and (iv) continued coverage under the company's life insurance, accident and disability plans for up to 12 months following termination. Under the agreements, Mr. Leicher and Dr. Kaundinya are also entitled to (i) continued vesting of any unvested stock options for a period of 12 months from the termination date and (ii) immediate vesting of any unvested time, but not performance, based restricted stock and restricted stock unit awards which would vest within 12 months from the termination date.

Effective October 5, 2018, we also terminated without cause Scott M. Storer, our former Senior Vice President and Chief Financial Officer and entered into a separation agreement with Mr. Storer. See "Executive Compensation—Separation Agreement with Scott M. Storer" for more information. The terms of the foregoing agreements were approved by our audit and compensation committees.

**PROPOSAL TWO—
RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED
PUBLIC ACCOUNTING FIRM**

The audit committee of our board of directors has selected the firm of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019. Although stockholder ratification of the appointment of Ernst & Young LLP is not required by law, our board of directors believes that it is advisable to give stockholders an opportunity to ratify this appointment. If this proposal is not approved at the Annual Meeting, our audit committee will reconsider its appointment of Ernst & Young LLP. Representatives of Ernst & Young LLP are expected to be present at the Annual Meeting and will have the opportunity to make a statement, if they desire to do so, and will be available to respond to appropriate questions from our stockholders.

Board Recommendation

The board of directors recommends a vote FOR the ratification of the appointment by the Audit Committee of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2019.

Auditors’ Fees

The following table summarizes the fees of Ernst & Young LLP, our independent registered public accounting firm, billed to us for each of the last two fiscal years.

<u>Fee Category</u>	<u>2018</u>	<u>2017</u>
Audit Fees(1)	921,832	903,500
Audit-Related Fees(2)	179,085	2,450
Tax Fees(3)	176,100	25,300
All Other Fees	—	—
Total Fees	<u>1,277,017</u>	<u>931,250</u>

- (1) Audit fees consist of fees for the audit of our financial statements, the audit of our internal control over financial reporting, the review of the interim financial statements included in our quarterly reports on Form 10-Q, and other professional services provided in connection with regulatory filings or engagements.
- (2) Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of the audit and the review of our financial statements and which are not reported under “Audit Fees.” Audit-related fees in 2018 included \$175,500 in respect of audit services in connection with our strategic review.
- (3) Tax fees consist of fees for tax compliance, tax advice and tax planning services. All of the tax fees were pre-approved by the audit committee in accordance with the pre-approval policies and procedures described below. Tax compliance services in 2018 and 2017 include fees for federal and state tax return assistance of \$35,600 and \$10,000, respectively. Tax advice and tax planning services in 2018 and 2017 included fees of \$140,500 and \$15,300, respectively and relate to periodic consultations.

Pre-Approval Policies and Procedures

Our audit committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by our independent registered public accounting firm. This policy generally provides that we will not engage our independent registered public accounting firm to

render audit or non-audit services unless the service is specifically approved in advance by our audit committee or the engagement is entered into pursuant to one of the pre-approval procedures described below.

From time to time, our audit committee may pre-approve specified types of services that are expected to be provided to us by our independent registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount. During 2018, no services were provided to us by Ernst & Young LLP other than in accordance with the pre-approval policies and procedures described above.

**PROPOSAL THREE—
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 a non-binding advisory basis, the compensation of our Named Executives as disclosed in this proxy statement in accordance with applicable SEC rules. This vote, commonly known as a “say-on-pay” proposal, provides stockholders with the opportunity to express their views on our Named Executives’ compensation and is required by Section 14A of the Exchange Act. The vote is not intended to address any specific item of our executive compensation, but rather the overall compensation of our Named Executives and the philosophy, policies and practices described in this proxy statement. Since 2011, we have held a non-binding, advisory vote on the compensation of our Named Executives annually. At our 2017 annual meeting, our stockholders voted, on an advisory basis, to hold advisory votes on executive compensation every year and we have determined to hold a non-binding, advisory vote on the compensation of our Named Executives annually. The next such non-binding, advisory vote will occur at the 2020 annual meeting of stockholders

As described in the section of this proxy statement entitled “Executive Compensation,” including “Compensation Discussion and Analysis” and related compensation tables, our executive compensation program is designed to attract, retain, and motivate talented individuals with the executive experience and leadership skills necessary for us to increase stockholder value. We seek to provide executive compensation that is competitive with companies that are similar to us. We also seek to provide near-term and long-term financial incentives that reward executives when strategic corporate objectives designed to increase long-term stockholder value are achieved. We believe that executive compensation should include base salary, cash incentives and equity awards. We also believe that our executive officers’ base salaries should be set at approximately median levels relative to comparable companies, and cash and equity incentives should generally be set at levels that give executives the opportunity to achieve above-average total compensation reflecting above-average company performance. In particular, our executive compensation philosophy is to promote long-term value creation for our stockholders by rewarding improvement in selected financial metrics, and by using equity incentives.

We are asking stockholders to vote to approve, on a non-binding advisory basis, following resolution:

RESOLVED, that the compensation paid to our Named Executives, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the compensation tables and any related material disclosed in this proxy statement, is hereby approved.

The say-on-pay vote is advisory, and therefore not binding on us, our board of directors, or the compensation committee of the board of directors. However, our board of directors and compensation committee value the opinions of our stockholders and to the extent there is any significant vote against the Named Executive compensation as disclosed in this proxy statement, we will consider our stockholders’ concerns and the compensation committee will evaluate whether any actions are necessary to address those concerns.

Board Recommendation

The board of directors recommends a vote FOR the approval of the compensation of our Named Executives as disclosed in this proxy statement.

**PROPOSAL FOUR—
APPROVAL OF AMENDMENT AND RESTATEMENT OF MOMENTA PHARMACEUTICALS, INC.
2013 INCENTIVE AWARD PLAN**

Overview

In this proposal, we are requesting stockholders approve the amendment and restatement of the Momenta Pharmaceuticals, Inc. 2013 Incentive Award Plan, or the 2013 Plan, to increase the number of shares of common stock available for issuance under the 2013 Plan by 4,000,000 shares. The board of directors approved the amendment and restatement of the 2013 Plan on March 13, 2019, subject to and effective upon stockholder approval. The 2013 Plan, as amended and restated if this proposal is approved, is described in more detail below. If this proposal is not approved by our stockholders, the amendment and restatement of the 2013 Plan will not become effective, but the 2013 Plan will remain in effect in accordance with its present terms.

Board Recommendation

The board of directors recommends a vote FOR the approval of the amendment and restatement of the Momenta Pharmaceuticals, Inc. 2013 Incentive Award Plan.

Stockholder Approval Requirement

In general, stockholder approval of the amendment and restatement of the 2013 Plan will increase the number of shares available for issuance under the 2013 Plan while (1) complying with the terms of the 2013 Plan as currently in effect regarding amendments, (2) meeting the stockholder approval requirements of the principal securities market on which shares of our common stock are traded, (3) preserving our ability to grant stock options under the 2013 Plan that are intended to qualify as incentive stock options, or ISOs, as defined under Section 422 of the Code, and (4) extending the term of the 2013 Plan until March 13, 2029.

Amendment and Restatement of the 2013 Plan

On March 13, 2019, the board of directors approved an amendment and restatement of the 2013 Plan to increase the shares of common stock available for grant under the 2013 Plan by 4,000,000 shares, subject to and effective upon approval of the amendment and restatement by our stockholders. The purpose of the amendment and restatement is to permit the Company to continue using the 2013 Plan to achieve the Company's performance, recruiting, retention and incentive goals.

We believe that continued use of the 2013 Plan is essential to our success. Equity awards are intended to motivate high levels of performance, align the interests of our directors, employees and consultants with those of our stockholders by giving directors, employees and consultants the perspective of an owner with an equity stake in the Company and providing a means of recognizing their contributions to the success of the Company. The board of directors and management believe that equity awards are necessary to remain competitive in our industry and are essential to recruiting and retaining the highly qualified employees who help the Company meet its goals.

The total number of shares reserved for issuance under the 2013 Plan before giving effect to the amendment and restatement equals the sum of: (a) 17,200,000, (b) one share for each share subject to a stock option that was granted through December 31, 2012 under our 2004 Stock Incentive Plan or our Amended and Restated 2002 Stock Incentive Plan, which we refer to together as the Prior Plans, that subsequently expires, is forfeited or is settled in cash (up to a maximum of 4,337,882 shares) and (c) (i) 1.35 shares for each share subject to an award other than a stock option that was granted through December 31, 2012 under the Prior Plans and that subsequently expired, was forfeited, was settled in cash or repurchased, in each case, prior to June 9, 2015 and (ii) 1.67 shares for each share

subject to an award other than a stock option that was granted through December 31, 2012 under the Prior Plans and that subsequently expires, is forfeited, is settled in cash or repurchased, in each case, on or after June 9, 2015 (up to a maximum of 950,954 shares). Set forth below is the number of shares available for issuance pursuant to outstanding equity awards under the 2013 Plan and the Prior Plans and future equity awards under the 2013 Plan as of March 12, 2019:

Shares subject to outstanding stock option awards(1)	6,127,803
Shares subject to outstanding stock awards(2)	3,044,439
Shares available for issuance under future awards	3,897,826

- (1) Represents shares subject to outstanding stock option awards granted under the 2013 Plan and the 2004 Stock Incentive Plan, as amended. As of March 12, 2019, options outstanding under the 2013 Plan and the 2004 Stock Incentive Plan, as amended, had a weighted average exercise price of \$14.65 and a weighted average remaining life of 6.22 years. As of March 12, 2019, the market value of all shares underlying options outstanding under the 2013 Plan and the 2004 Stock Incentive Plan, as amended, was \$85,482,852, based on our closing price per share on The Nasdaq Global Select Market on that date.
- (2) Represents shares subject to unvested awards of restricted stock and restricted stock units under the 2013 Plan and the 2004 Stock Incentive Plan, as amended. As of March 12, 2019, unvested awards of restricted stock and restricted stock units outstanding under the 2013 Plan and the 2004 Stock Incentive Plan, as amended, had weighted average remaining vesting terms of 0.63 years, for the unvested restricted stock awards, and 3.57 years, for the restricted stock unit awards. As of March 12, 2019, the market value of all shares underlying unvested restricted stock and restricted stock unit awards outstanding under the 2013 Plan and the 2004 Stock Incentive Plan, as amended, was \$42,469,924, based on our closing price per share on The Nasdaq Global Select Market on that date.

For additional information regarding equity awards outstanding and available for future grants as of December 31, 2018, see “Equity Compensation Plan Information.”

If this proposal is approved, an additional 4,000,000 shares will become available for issuance under the 2013 Plan. If the amendment and restatement is not approved, the 2013 Plan will remain in effect in accordance with its present terms.

Considerations Relating to the Additional Shares Under the 2013 Plan

In recommending the amendment and restatement of the 2013 Plan to the board of directors for approval, the compensation committee reviewed employee and compensation data from the Company and analyses prepared by Radford, the committee’s independent compensation consultant. Considerations taken into account by the compensation committee included the following

- *Restructuring.* Following our strategic business review, we made the decision in September of 2018 to restructure the company. As a result of this restructuring, we announced in October 2018 that we would reduce our workforce by approximately 50%. In October 2018, we determined to grant equity awards, in the form of restricted stock and performance based stock units to our continuing employees, including our Named Executives in order to retain and incentivize them to implement such restructuring. We anticipate, as a result of our restructuring and the biotechnology industry in general, an employee turnover rate of approximately 20% during 2019 and 2020. Accordingly, we anticipate an increase in new hire and/or long term equity grants to attract and to retain employees as a result of hiring needs resulting from the restructuring and employee turnover.

- *Competitiveness.* The market for high caliber, experienced talent in our industry and in our geographic location is extremely competitive. We compete not only with other similar sized and larger biotechnology companies, but we also compete for talent directly with much larger pharmaceutical companies that have significantly greater resources and generous compensation practices. Our ability to grant equity awards is critical to our ability to be competitive and to attract, retain and motivate the talent we need to best position our Company for success.
- *Broad-based equity programs.* We believe broad-based equity programs are important to our ability to attract, retain and motivate employees throughout the Company and align employee interests with those of our stockholders. In 2018, less than 37% of the total equity awards granted under the 2013 Plan have gone to our Named Executives.
- *Limited duration of current shares available.* If we do not increase the shares available for issuance under the 2013 Plan, we expect the number of available shares under the 2013 Plan to be substantially depleted by the end of 2020 and that we would then be unable to continue to grant broad-based equity awards. If our stockholders approve the amendment and restatement, we estimate that the shares reserved for issuance under the 2013 Plan, as amended and restated, would be sufficient for up to one additional year of awards, based on projected increase in the number of senior employees, projected employee turnover and historical grant practices.
- *Reasonable burn rate.* The following table sets forth the equity grant and resulting annual gross burn rate information for each of the past three years.

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Shares subject to option awards granted	372,690	1,530,805	1,521,327
Shares subject to time-based restricted stock or restricted stock unit awards granted	1,357,505	519,753	434,821
Shares subject to performance-based restricted stock and PSU awards granted(1)	1,812,758	139,020	1,646,580
Shares subject to performance-based restricted stock and PSU awards earned or vested(2)	372,736	—	308,095
Basic weighted average shares outstanding	77,845,000	73,136,000	68,656,000
Gross Burn Rate(3)	4.55%	2.99%	5.25%
ISS Calculated 3 Year Average Burn Rate(4)		3.6%	

(1) Granted to substantially all employees as part of our 2016 and 2018 company-wide performance-based restricted stock or PSU award programs.

(2) Granted to substantially all employees as part of our 2016 and 2011 company-wide performance-based restricted stock program.

(3) Gross burn rate is calculated by dividing the total shares subject to equity awards granted during the year by the basic weighted average number of shares outstanding during the period. The number of total shares subject to equity awards includes shares subject to canceled and forfeited awards.

(4) ISS calculated three year average burn rate is calculated by adding (a) the total shares subject to options granted during the three year period plus (b) the total shares subject to time-based restricted stock or restricted stock unit awards granted during the three year period multiplied by two plus (c) the total shares subject to performance-based restricted stock or PSU awards earned or vested during the three year period multiplied by two, and dividing the sum by the basic

weighted average number of shares outstanding during the period. The number of total shares subject to equity awards includes shares subject to canceled and forfeited awards.

- *Burn rate below ISS limit.* Our 2018 three year burn rate, based on the ISS methodology of calculation, of 3.6% is below the 2018 ISS burn rate industry benchmark of 6.98%.
- *Impact of multi-year performance based award programs.* Our historical approach of adopting sequential broad-based performance-based equity programs with multi-year performance periods results in unusually high burn rates in the years the programs are adopted and skews multi-year average burn rates. For example, in 2018, the year we adopted the current program, our burn rate was 4.55%. In 2016, the year we adopted our last program, our burn rate was 5.25%.
- *Reasonable overhang.* If approved, the issuance of the additional 4,000,000 shares to be reserved under the 2013 Plan represents approximately 4% of the number of shares of our common stock outstanding as of December 31, 2018.

In consideration of these factors, and our belief that the ability to continue granting competitive equity compensation is vital to our ability to attract, retain and motivate employees, we believe that the amendment and restatement of the 2013 Plan and the size of the share reserve under the 2013 Plan after giving effect to the amendment and restatement are reasonable, appropriate and in the best interests of the Company at this time.

Other Amendments to the 2013 Plan

The amendment and restatement of the 2013 Plan also sets the maximum aggregate number of shares that may be granted to any person other than a non-employee director during any calendar year at 2,500,000 (previously 1,000,000) and extends the expiration date of the 2013 Plan to March 13, 2029.

Benefits of the 2013 Plan

We depend on the performance and commitment of our employees to succeed. The use of equity-based long-term incentives assists us in attracting, retaining, motivating and rewarding talented employees. Providing equity grants creates long-term participation in the Company and aligns the interests of our employees with the interests of our stockholders. The use of equity awards as compensation also allows the Company to conserve cash resources for other important purposes.

The 2013 Plan provides the compensation committee with the flexibility to effectively use the shares under the 2013 Plan to provide incentives to our personnel. The 2013 Plan contains provisions we believe are consistent with best practices in equity compensation and which we believe further protect our stockholders' interests, including:

- *No Increase to Shares Available for Issuance without Stockholder Approval.* Without stockholder approval, the 2013 Plan prohibits any alteration or amendment that operates to increase the total number of shares of common stock that may be issued under the 2013 Plan (other than adjustments in connection with certain corporate reorganizations and other events).
- *Use of a Fungible Ratio.* Shares that are subject to awards other than options or stock appreciation rights count against the aggregate number of shares available for issuance under the 2013 Plan as 1.67 shares for every one share granted.
- *Minimum Vesting Requirement.* Awards granted under the 2013 Plan are generally subject to a minimum one year vesting requirement.
- *No Single-Trigger Vesting of Awards.* The 2013 Plan does not have a single-trigger accelerated vesting provision for changes in control.

- *No Repricing of Awards.* Awards may not be repriced, replaced or regranted through cancellation or modification without stockholder approval if the effect would be to reduce the exercise price for the shares under the award.
- *Limitations on Dividend Payments on Performance Awards.* Dividends and dividend equivalents may not be paid on awards subject to performance vesting conditions unless and until such conditions are met.
- *Limitations on Grants.* The maximum number of shares of our common stock that may be subject to one or more awards granted to any participant, other than a non-employee director, pursuant to the 2013 Plan during any calendar year is 2,500,000. However, this number may be adjusted to take into account equity restructurings and certain other corporate transactions as described below. The maximum amount that may be paid in cash to any participant during any calendar year pursuant to awards granted under the 2013 Plan that are initially payable in cash is \$5,000,000. The maximum number of shares of our common stock that may be subject to one or more awards granted to any non-employee director pursuant to the 2013 Plan during any calendar year is 100,000 shares.
- *No Dividend Payments on Unvested Equity Awards.* Dividends or dividend equivalents may not be paid on any awards, including awards of stock options and stock appreciation rights, subject to vesting conditions unless and until the underlying shares vest pursuant to the terms of the award.

Summary of the Amended and Restated 2013 Plan

This section summarizes certain principal features of the 2013 Plan, as amended and restated subject to stockholder approval. The summary is qualified in its entirety by reference to the complete text of the amended and restated 2013 Plan. Stockholders are urged to read the actual text of the amended and restated 2013 Plan in its entirety which is set forth in **Exhibit A** to this proxy statement.

Purpose. The purpose of the 2013 Plan is to promote the success and enhance the value of the Company by linking the individual interests of the members of the board of directors, employees, and consultants to those of Company stockholders and by providing such individuals with an incentive for outstanding performance to generate superior returns to Company stockholders. The 2013 Plan is further intended to provide flexibility to the Company in its ability to motivate, attract and retain the services of members of the board of directors, employees, and consultants upon whose judgment, interest, and special effort the successful conduct of the Company's operation is largely dependent.

Share Reserve. If the amendment and restatement of the 2013 Plan is approved, the number of shares of Company common stock reserved for issuance under the 2013 Plan will be equal to the sum of: (a) 21,200,000 shares reserved for issuance under the 2013 Plan, plus (b) one share for each share subject to a stock option that was granted through December 31, 2012 under the Prior Plans, that subsequently expires, is forfeited or is settled in cash (up to a maximum of 4,337,882 shares), plus (c) (i) 1.35 shares for each share subject to an award other than a stock option that was granted through December 31, 2012 under the Prior Plans and that subsequently expired, was forfeited, was settled in cash or repurchased, in each case, prior to June 9, 2015 and (ii) 1.67 shares for each share subject to an award other than a stock option that was granted through December 31, 2012 under the Prior Plans and that subsequently expires, is forfeited, is settled in cash or repurchased, in each case, on or after June 9, 2015 (up to a maximum of 950,954 shares), as provided below.

Share Counting. Each share issued in connection with an award granted on or after June 9, 2015 other than stock options and stock appreciation rights will be counted against the 2013 Plan's share reserve as 1.67 shares for every one share issued in connection with such award, while each share issued in connection with an award of stock options or stock appreciation rights will count against the share reserve as one share for every one share granted. The payment of dividend equivalents in cash in conjunction with an outstanding award will not be counted against the number of shares available for issuance under the 2013 Plan.

If (1) any award under the 2013 Plan is forfeited or expires or is settled in cash (in whole or in part) or (2) any award granted under the Prior Plans on or prior to December 31, 2012 is forfeited or expires or is settled for cash (in whole or in part), the shares subject to such award shall, to the extent of such forfeiture, expiration or cash settlement, be used for new grants under the 2013 Plan. In addition, any shares repurchased by us at the same or lower price paid by the participant so that such shares are returned to the Company may be used again for new grants under the 2013 Plan. Any shares that become available for grant pursuant to the foregoing will be added back as (1) one share for each share subject to a stock option or stock appreciation right and (2) (a) 1.35 shares for each share subject to an award other than an option or stock appreciation right granted under the 2013 Plan prior to June 9, 2015 or granted under a Prior Plan and forfeited, expired or settled in cash prior to June 9, 2015 and (b) 1.67 shares for each share subject to an award other than an option or stock appreciation right granted under the 2013 Plan on or after June 9, 2015 or granted under a Prior Plan and forfeited, expired or settled in cash on or after June 9, 2015.

Notwithstanding the foregoing, the following shares will not be added to the shares authorized for grant under the 2013 Plan: (1) any shares tendered or withheld to satisfy the exercise price of an option, (2) any shares tendered or withheld to satisfy any tax withholding obligation with respect to an award, (3) any shares subject to a stock appreciation right that are not issued in connection with the stock settlement of the stock appreciation right on its exercise, and (4) any shares purchased on the open market with the cash proceeds from the exercise of options.

To the extent permitted by applicable law or any exchange rule, and subject to certain other restrictions, shares issued in assumption of, or in substitution for, any outstanding awards or shares available under a pre-existing plan of an entity acquired by the Company or any of its subsidiaries that was approved by stockholders and not adopted in contemplation of such acquisition will not be counted against the shares available for grant under the 2013 Plan.

Administration. The 2013 Plan is administered, with respect to grants to officers, employees, directors and consultants, by the 2013 Plan administrator, or the Administrator, defined as the board of directors or one or more committees designated by the board of directors. The compensation committee currently acts as the Administrator. With respect to grants to officers and directors, the compensation committee will be constituted in a manner intended to satisfy applicable laws, including Rule 16b-3 promulgated under the Exchange Act.

The Administrator has the authority, in its discretion, to select employees, consultants and directors to whom awards may be granted from time to time, to determine whether and to what extent awards are granted, to determine the number of shares or the amount of other consideration to be covered by each award (subject to the limitations set forth below), to approve award agreements for use under the 2013 Plan, to determine the terms and conditions of any award (including the vesting schedule applicable to the award), to amend the terms of any outstanding award granted under the 2013 Plan (subject to the limitations described above), to construe and interpret the terms of the 2013 Plan and awards granted, to establish additional terms, conditions, rules or procedures to accommodate the rules or laws of applicable non-U.S. jurisdictions, and to take such other action not inconsistent with the terms of the 2013 Plan, as the Administrator deems appropriate.

Eligibility. Any person who is an employee, a consultant or a non-employee director, as determined by the Administrator, is eligible for an award under the 2013 Plan. The Administrator determines the type and size of award and sets the terms, conditions, restrictions and limitations applicable to the award within the confines of the 2013 Plan's terms. As of April 4, 2019, 113 employees, 8 non-employee directors and 0 consultants were eligible to receive awards under the 2013 Plan; however, this number is subject to change as the number of individuals in our businesses is adjusted to meet our operational requirements. Although the 2013 Plan permits the Administrator to

make grants to consultants of the Company, the Company as a general practice has not in the past granted awards from the 2013 Plan to consultants.

Award Limits. The maximum aggregate number of shares with respect to one or more awards that may be granted to any one person other than a non-employee director during any calendar year shall be 2,500,000, the maximum aggregate number of shares with respect to one or more awards that may be granted to a non-employee director during any calendar year shall be 100,000 and the maximum aggregate amount of cash that may be paid in cash to any one person during any calendar year with respect to one or more awards initially payable in cash shall be \$5,000,000.

No Re-pricings or Exchanges without Stockholder Approval. The 2013 Plan requires the Company to obtain stockholder approval prior to (a) reducing the exercise price of any stock option or the base appreciation amount of any stock appreciation right awarded under the 2013 Plan or (b) cancelling a stock option or stock appreciation right at a time when its exercise price or base appreciation amount exceeds the fair market value of the underlying shares in exchange for cash or another stock option, stock appreciation right, restricted stock or other award (unless the cancellation and exchange occurs in connection with a corporate transaction).

Terms and Conditions of Awards. The 2013 Plan includes a variety of forms of awards, including stock options, stock appreciation rights, restricted stock, restricted stock units and dividend equivalents to allow the Company to adapt its incentive compensation program to meet the needs of the Company in the changing business environment in which the Company operates. Each award granted under the 2013 Plan is designated in an award agreement. Under the 2013 Plan, the Administrator may establish one or more programs to permit selected participants the opportunity to elect to defer receipt of consideration payable under an award. The Administrator also may establish under the 2013 Plan separate programs for the grant of particular forms of awards to one or more classes of participants.

Stock Options. Stock options granted under the 2013 Plan may be either incentive stock options under the provisions of Section 422 of the Code or non-qualified stock options. Incentive stock options may be granted only to employees. The option exercise price of all stock options granted pursuant to the 2013 Plan will not be less than 100% of the fair market value of our common stock on the date of grant. Incentive stock options granted to any person who owns, as of the date of grant, stock possessing more than ten percent of the total combined voting power of all classes of our stock or any subsidiary corporation or parent corporation (each, as defined in Section 424 of the Code), however, shall have an exercise price that is not less than 110% of the fair market value of our common stock on the date of grant and may not have a term extending beyond the fifth anniversary of the date of grant. To the extent that the aggregate fair market value of the shares subject to stock options designated as incentive stock options which become exercisable for the first time by a participant during any calendar year exceeds \$100,000, such excess stock options shall be treated as non-qualified stock options. Options may be granted subject to vesting schedules and restrictions on transfer and repurchase or forfeiture rights in favor of the Company as specified in the award agreements to be issued under the 2013 Plan. The Administrator will determine when an option will vest and become exercisable, though no option will be exercisable more than ten years after the date of grant.

Stock Appreciation Rights. A stock appreciation right entitles its holder, upon exercise of all or a portion of the stock appreciation right, to receive from us an amount determined by multiplying the difference obtained by subtracting the exercise or base price per share of the stock appreciation right from the fair market value at the time of exercise of the stock appreciation right by the number of shares with respect to which the stock appreciation right has been exercised, subject to any limitations imposed by the Administrator. The exercise or base price per share subject to a stock appreciation right will be set by the Administrator, but may not be less than 100% of the fair market value on the date the stock appreciation right is granted. The Administrator determines the period during which the right to exercise the stock appreciation right vests in the holder, but in no event may a stock appreciation

right have a term extending beyond the tenth anniversary of the date of grant. Payment pursuant to the stock appreciation right awards may be in cash, shares, or a combination of both, as determined by the Administrator. Generally, a stock appreciation right may be exercised only while such person remains an employee or non-employee director of us or one of our subsidiaries or affiliates or for a specified period of time (up to the remainder of the award term) following the holder's termination of service with us or one of our subsidiaries or affiliates.

Restricted Stock. A restricted stock award is the grant of shares of common stock subject to certain restrictions (including restrictions on transfer, vesting and voting rights) and may be subject to a substantial risk of forfeiture until specific conditions are met. The Administrator will determine the purchase price, if any, for restricted stock, as well as any terms, conditions and restrictions applicable to the award. Unless otherwise determined by the Administrator, holders of restricted stock shall have the right to receive dividends and distributions paid with respect to their shares, except that certain extraordinary distributions will be restricted unless the Administrator determines otherwise. In addition, for shares of restricted stock, dividends paid prior to vesting will only be paid to the extent that the vesting conditions are subsequently satisfied and the share vests. During the period of restriction, participants holding shares of restricted stock may have full voting rights with respect to such shares. Except as otherwise determined by the Administrator, upon termination of service during the restriction period, holders of restricted stock for which a price was not paid must return the unvested restricted stock to the Company. If the holder paid for the restricted stock, the Company has the right to repurchase the unvested restricted stock at a price equal to what the holder paid, or other price as set forth in the award agreement.

Restricted Stock Units. A restricted stock unit award provides for the issuance of our common stock at a future date upon the satisfaction of specific conditions set forth in the applicable award agreement. The Administrator will specify the dates on which the restricted stock units will become fully vested and nonforfeitable, and may specify such conditions to vesting as it deems appropriate, including conditions based on achieving one or more of the performance criteria listed below, or other specific criteria, including service to us or any of our subsidiaries or affiliates. Restricted stock units generally will be forfeited, and the underlying shares of our common stock will not be issued, if the applicable vesting conditions are not met. The Administrator will specify, or permit the restricted stock unit holder to elect, the conditions and dates upon which the shares underlying the vested restricted stock units will be issued (subject to compliance with the deferred compensation requirements of Section 409A of the Code). Restricted stock units may be paid in cash, shares, or both, as determined by the Administrator. Restricted stock units may constitute, or provide for a deferral of, compensation subject to Section 409A of the Code, and there may be certain tax consequences if the requirements of Section 409A of the Code are not met.

Stock Payments. A stock payment is a payment in the form of shares of our common stock or an option or other right to purchase shares of our common stock. The number or value of shares of any stock payment will be determined by the Administrator and may be based on continuing service with us or any of our subsidiaries or affiliates or achieving one or more of the performance criteria listed below, or other specific criteria determined by the Administrator. Shares underlying a stock payment that is subject to a vesting schedule or other conditions or criteria set by the Administrator will not be issued until those conditions have been satisfied. Stock payments may, but are not required to, be made in lieu of base salary, bonus, fees or other cash compensation otherwise payable to any individual who is eligible to receive awards under the 2013 Plan.

Performance Awards. Performance awards may be granted in the form of cash awards, stock awards or other performance or incentive awards that are paid in cash, shares or a combination of cash and shares. The value of performance awards may be linked to any one or more of the performance criteria listed below, or other specific criteria determined by the Administrator, in each case on a

specified date or dates or over any period or periods determined by the Administrator. Performance awards may be payable upon the attainment of pre-established performance goals based on one or more of the performance criteria listed below under “Performance Criteria,” or other specific criteria determined by the Administrator. The goals are established and evaluated by the Administrator and may relate to performance over any periods as determined by the Administrator.

Transferability of Awards. Under the 2013 Plan, incentive stock options may not be sold, pledged, assigned, hypothecated, transferred or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the grantee, only by the grantee. Other awards shall be transferable (i) by will and by the laws of descent and distribution and (ii) during the lifetime of the grantee, to the extent and in the manner authorized by the Administrator but only to the extent such transfers are made to family members, to family trusts, to family controlled entities and to charitable organizations, in all cases without payment for such transfers to the grantee. Notwithstanding the foregoing, the grantee may designate one or more beneficiaries of the grantee’s award in the event of the grantee’s death on a beneficiary designation form provided by the Administrator.

Payment Methods. The Administrator determines the methods by which payments by any award holder with respect to any awards granted under the 2013 Plan may be paid and the form of such payment, including, without limitation: (1) cash or check; (2) shares of our common stock issuable pursuant to the award or held for such period of time as may be required by the Administrator in order to avoid adverse accounting consequences, in each case, having a fair market value on the date of delivery equal to the aggregate payments required; (3) delivery of a written or electronic notice that the award holder has placed a market sell order with a broker with respect to shares of our common stock then issuable upon exercise or vesting of an award, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to us in satisfaction of the aggregate payments required (provided that payment of such proceeds is then made to us upon settlement of such sale); or (4) any other form of legal consideration acceptable to the Administrator. However, no participant who is a member of the board of directors or an “executive officer” of the Company within the meaning of Section 13(k) of the Exchange Act will be permitted to make payment with respect to any awards granted under the 2013 Plan, or continue any extension of credit with respect to such payment in any method that would violate the prohibitions on loans made or arranged by us as set forth in Section 13(k) of the Exchange Act. Only whole shares of common stock may be purchased or issued pursuant to an award, and the Administrator will determine whether cash will be given in lieu of any fractional shares or whether fractional shares will be eliminated by rounding down.

Tax Withholding. The Company may require the eligible individual to discharge applicable withholding tax obligations with respect to any award granted under the 2013 Plan. The Administrator, in its discretion, may withhold, or allow the individual to elect to have the Company withhold, shares of common stock otherwise issuable under any award (or allow the surrender of shares of common stock) having a fair market value on the date of withholding equal to the sums required to be withheld by federal, state, local and foreign law. The Administrator will determine the fair market value of the stock applicable to the determination of withholding obligations due for broker-assisted cashless options or stock appreciation right exercises consistent with the applicable provisions of the Code.

Performance Criteria. The 2013 Plan includes the following performance criteria that may be considered by the compensation committee when granting performance-based awards: (i) net earnings (either before or after one or more of the following: (A) interest, (B) taxes, (C) depreciation and (D) amortization); (ii) gross or net sales or revenue; (iii) net income (either before or after taxes); (iv) adjusted net income; (v) operating earnings or profit; (vi) cash flow (including, but not limited to, operating cash flow and free cash flow); (vii) return on assets; (viii) return on capital; (ix) return on stockholders’ equity; (x) total stockholder return; (xi) return on sales; (xii) gross or net profit or

operating margin; (xiii) costs; (xiv) expenses; (xv) working capital; (xvi) earnings per share; (xvii) adjusted earnings per share; (xviii) price per share; (xix) regulatory body approval for commercialization of a product; (xx) implementation, completion or attainment of objectively determinable objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; (xxi) market share; and (xxii) economic value. Any of the foregoing performance criteria may be measured with respect to us, or any subsidiary, division, business unit or individual, either in absolute terms or as compared to any incremental increase or decrease or as compared to results of a peer group or to market performance indicators or indices. The compensation committee may also consider additional performance criteria when granting performance-based awards. With regard to a particular performance period, the compensation committee will have the discretion to select the length of the performance period, the type of performance-based awards to be granted, and the performance goals that will be used to measure the performance for the period.

The compensation committee may provide that adjustments will be made for purposes of determining the achievement of one or more of the performance goals established for an award. Any such adjustments may be based on, but are not limited to, one or more of the following: (i) items related to a change in accounting principle; (ii) items relating to financing activities; (iii) expenses for restructuring or productivity initiatives; (iv) other non-operating items; (v) items related to acquisitions; (vi) items attributable to the business operations of any entity acquired by us during the performance period; (vii) items related to the disposal of a business or segment of a business; (viii) items related to discontinued operations that do not qualify as a segment of a business under applicable accounting standards; (ix) items attributable to any stock dividend, stock split, combination or exchange of shares occurring during the performance period; (x) any other items of significant income or expense which are determined to be appropriate adjustments; (xi) items relating to unusual or extraordinary corporate transactions, events or developments; (xii) items related to amortization of acquired intangible assets; (xiii) items that are outside the scope of our core, on-going business activities; (xiv) items related to acquired, in-process research and development; (xv) items relating to changes in tax laws; (xvi) items relating to major licensing or partnership arrangements; (xvii) items relating to asset impairment charges; (xviii) items relating to gains or losses for litigation, arbitration and contractual settlements; or (xvix) items relating to any other unusual or nonrecurring events or changes in applicable laws, accounting principles or business conditions.

Forfeiture, Recoupment and Clawback Provisions. Pursuant to its general authority to determine the terms and conditions applicable to awards under the 2013 Plan, the Administrator has the right to provide, in an award agreement or otherwise, that an award will be subject to the provisions of any recoupment or clawback policies implemented by the Company, including, without limitation, any recoupment or clawback policies adopted to comply with the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder.

Minimum Vesting Provision. Awards made under the 2013 Plan (other than cash-settled awards) to our employees, directors or consultants shall not vest earlier than the date that is one year following the date the award is approved by the Administrator; provided, however, that, notwithstanding the foregoing, awards that result in an issuance of an aggregate of up to 5% of the shares of common stock available under the 2013 Plan may be granted to any one or more employees, directors or consultants without respect to such minimum vesting provision.

Certain Adjustments. If there is any stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of our assets to stockholders, or any other change affecting the shares of our common stock or the share price of our common stock other than an equity restructuring (as defined in the 2013 Plan), the Administrator may make such equitable adjustments, if any, as the Administrator in its discretion may deem appropriate to reflect such change with respect to (1) the aggregate number and type of shares that may be issued

under the 2013 Plan (including, but not limited to, adjustments of the number of shares available under the 2013 Plan and the maximum number and kind of shares that may be subject to one or more awards to a participant pursuant to the 2013 Plan during any fiscal year), (2) the number and kind of shares, or other securities or property, subject to outstanding awards, (3) the terms and conditions of any outstanding awards (including, without limitation, any applicable performance targets or criteria with respect thereto), and (4) the grant or exercise price per share for any outstanding awards under the 2013 Plan. If there is any equity restructuring, (1) the number and type of securities subject to each outstanding award and the grant or exercise price per share for each outstanding award, if applicable, will be proportionately adjusted, and (2) the Administrator will make proportionate adjustments to reflect such equity restructuring with respect to the aggregate number and type of shares that may be issued under the 2013 Plan (including, but not limited to, adjustments of the number of shares available under the 2013 Plan and the maximum number and kind of shares that may be subject to one or more awards to a participant pursuant to the 2013 Plan during any fiscal year). The Administrator also has the authority under the 2013 Plan to take certain other actions with respect to outstanding awards in the event of a corporate transaction, including provision for the cash-out, termination, assumption or substitution of such awards.

Change in Control. In the event of a change in control of the Company, outstanding awards will continue in effect or may be either assumed or substituted by the successor corporation or its affiliate. If the successor corporation refuses such assumption or substitution, the Administrator may cause any outstanding awards to become fully exercisable immediately prior to the consummation of the transaction and all forfeiture restrictions on any or all of such awards to lapse. If an award is exercisable in lieu of assumption or substitution in the event of a change in control, the Administrator will notify the holder of the award that the award will be fully exercisable for a period of fifteen days from the date of such notice, contingent upon the occurrence of the change in control, and the award will terminate upon the expiration of such period.

Amendment, Suspension or Termination of the 2013 Plan. The board of directors or the compensation committee may at any time amend, suspend or terminate the 2013 Plan. However, without approval of the Company's stockholders given within twelve (12) months before or after the action by the Administrator, no action of the Administrator may (a) increase the limits imposed in Section 3.1 on the maximum number of shares which may be issued under the 2013 Plan (except as part of an adjustment for a corporate event), (b) reduce the price per share of any outstanding option or stock appreciation right granted under the 2013 Plan or (c) cancel any option or stock appreciation right in exchange for cash or another award when the option or stock appreciation right price per share exceeds the fair market value of the underlying shares. Except as required by Section 409A or the applicable forfeiture or clawback provision, no amendment, suspension or termination of the 2013 Plan shall, without the consent of the holder, impair any rights or obligations under any award granted or awarded, unless expressly provided in the award itself. The 2013 Plan will terminate on March 13, 2029, unless earlier terminated by the board of directors.

Federal Income Tax Consequences

The following is a general summary as of this date of the federal income tax consequences to us and to U.S. participants for awards granted under the 2013 Plan. The federal tax laws may change and the federal, state and local tax consequences for any participant will depend upon his or her individual circumstances. Tax consequences for any particular individual may be different. This summary does not purport to be complete, and does not discuss state, local or non-U.S. tax consequences.

Non-qualified Stock Options. The grant of a non-qualified stock option under the 2013 Plan will not result in any federal income tax consequences to the participant or to the Company. Upon exercise of a non-qualified stock option, the participant is subject to income taxes at the rate applicable to

ordinary compensation income on the difference between the option exercise price and the fair market value of the shares at the time of exercise. This income is subject to withholding for federal income and employment tax purposes. The Company is entitled to an income tax deduction in the amount of the income recognized by the participant, subject to possible limitations imposed by Section 162(m) of the Code and so long as the Company withholds the appropriate taxes with respect to such income (if required) and the participant's total compensation is deemed reasonable in amount. Any gain or loss on the participant's subsequent disposition of the shares of common stock will receive long or short-term capital gain or loss treatment, depending on whether the shares are held for more than one year following exercise. The Company does not receive a tax deduction for any such gain.

A non-qualified stock option can be considered non-qualified deferred compensation and subject to Section 409A of the Code. A non-qualified stock option that does not meet the requirements of Code Section 409A can result in the acceleration of income recognition and an additional 20% tax obligation plus penalties and interest.

Incentive Stock Options. The grant of an incentive stock option under the 2013 Plan will not result in any federal income tax consequences to the participant or to the Company. A participant recognizes no federal taxable income upon exercising an incentive stock option (subject to the alternative minimum tax rules discussed below), and the Company receives no deduction at the time of exercise. In the event of a disposition of stock acquired upon exercise of an incentive stock option, the tax consequences depend upon how long the participant has held the shares of common stock. If the participant does not dispose of the shares within two years after the incentive stock option was granted, nor within one year after the incentive stock option was exercised, the participant will recognize a long-term capital gain (or loss) equal to the difference between the sale price of the shares and the exercise price. The Company is not entitled to any deduction under these circumstances.

If the participant fails to satisfy either of the foregoing holding periods (referred to as a "disqualifying disposition"), he or she must recognize ordinary income in the year of the disposition. The amount of ordinary income generally is the lesser of (i) the difference between the amount realized on the disposition and the exercise price or (ii) the difference between the fair market value of the stock at the time of exercise and the exercise price. Any gain in excess of the amount taxed as ordinary income will be treated as a long or short-term capital gain, depending on whether the stock was held for more than one year. The Company, in the year of the disqualifying disposition, is entitled to a deduction equal to the amount of ordinary income recognized by the participant, subject to possible limitations imposed by Section 162(m) of the Code and so long as the participant's total compensation is deemed reasonable in amount.

The "spread" under an incentive stock option—i.e., the difference between the fair market value of the shares at exercise and the exercise price—is classified as an item of adjustment in the year of exercise for purposes of the alternative minimum tax. If a participant's alternative minimum tax liability exceeds such participant's regular income tax liability, the participant will owe the larger amount of taxes. In order to avoid the application of alternative minimum tax with respect to incentive stock options, the participant must sell the shares within the calendar year in which the incentive stock options are exercised. However, such a sale of shares within the year of exercise will constitute a disqualifying disposition, as described above.

Stock Appreciation Rights. Recipients of stock appreciation rights, or SARs, generally should not recognize income until the SAR is exercised (assuming there is no ceiling on the value of the right). Upon exercise, the recipient will normally recognize taxable ordinary income for federal income tax purposes equal to the amount of cash and fair market value of the shares, if any, received upon such exercise. Recipients who are employees will be subject to withholding for federal income and employment tax purposes with respect to income recognized upon exercise of a SAR. Recipients will recognize gain upon the disposition of any shares received on exercise of a SAR equal to the excess of

(i) the amount realized on such disposition over (ii) the ordinary income recognized with respect to such shares under the principles set forth above. That gain will be taxable as long or short-term capital gain depending on whether the shares were held for more than one year. We will be entitled to a tax deduction to the extent and in the year that ordinary income is recognized by the recipient, subject to possible limitations imposed by Section 162(m) of the Code and so long as we withhold the appropriate taxes with respect to such income (if required) and the recipient's total compensation is deemed reasonable in amount.

A SAR also can be considered non-qualified deferred compensation and subject to Section 409A of the Code. A SAR that does not meet the requirements of Code Section 409A can result in the acceleration of income recognition and an additional 20% tax obligation plus penalties and interest.

Restricted Stock. A restricted stock award is subject to a "substantial risk of forfeiture" within the meaning of Section 83 of the Code to the extent the award will be forfeited in the event that the participant ceases to provide services to the Company. As a result of this substantial risk of forfeiture, the recipient will not recognize ordinary income at the time of the award. Instead, the recipient will recognize ordinary income on the date when the stock is no longer subject to a substantial risk of forfeiture, or when the stock becomes transferable, if earlier. The recipient's ordinary income is measured as the difference between the amount paid for the stock, if any, and the fair market value of the stock on the earlier of those two dates.

The recipient may accelerate his or her recognition of ordinary income, if any, and begin his or her capital gains holding period by timely filing (i.e., within 30 days of the award) an election pursuant to Section 83(b) of the Code. In such event, the ordinary income recognized, if any, is measured as the difference between the amount paid for the stock, if any, and the fair market value of the stock on the date of award, and the capital gain holding period commences on such date. The ordinary income recognized by a recipient that is an employee or former employee will be subject to tax withholding by the Company.

Restricted Stock Units. With respect to awards of restricted stock units, no ordinary income is reportable when the restricted stock units are granted to a participant or upon vesting of the restricted stock units. Upon settlement, the recipient will recognize ordinary income in an amount equal to the value of the payment received pursuant to the restricted stock units. The ordinary income recognized by a recipient that is an employee or former employee will be subject to tax withholding by the Company.

Restricted stock units also can be considered non-qualified deferred compensation and subject to Section 409A of the Code. A grant of restricted stock units that does not meet the requirements of Code Section 409A results in the acceleration of income recognition and an additional 20% tax obligation plus penalties and interest.

Dividends and Dividend Equivalents. Recipients of stock-based awards that earn dividends or dividend equivalents will recognize taxable ordinary income on any dividend payments received with respect to unvested and/or unexercised shares subject to such awards, which income is subject to withholding for federal income and employment tax purposes. We are entitled to an income tax deduction in the amount of the income recognized by a participant, subject to possible limitations imposed by Section 162(m) of the Code and so long as we withhold the appropriate taxes with respect to such income (if required) and the individual's total compensation is deemed reasonable in amount.

Tax Effect for the Company. Unless limited by Section 162(m) or 280G of the Code, the Company generally will be entitled to a tax deduction in connection with an award under the 2013 Plan in an amount equal to the ordinary income realized by a recipient at the time the recipient recognizes such income (for example, when restricted stock is no longer subject to the risk of forfeiture).

In general, under Section 162(m) of the Code, income tax deductions of publicly-held corporations may be limited to the extent total compensation (including base salary, annual bonus, stock option exercises and non-qualified benefits paid) for certain current or former executive officers exceeds \$1 million (less the amount of any “excess parachute payments” as defined in Section 280G of the Code) in any one year.

Plan Benefits

If the amendment and restatement of the 2013 Plan is approved by our stockholders, the number of shares of our common stock authorized for issuance under the 2013 Plan will increase by 4,000,000 shares. Awards under the 2013 Plan are subject to the discretion of the Administrator and, except with respect to grants to certain non-employee directors pursuant to our non-employee director compensation policy, unless such policy is amended, no determinations have been made by the Administrator as to any future awards that may be granted pursuant to the 2013 Plan. For additional information regarding our non-employee director compensation policy, see “Executive Compensation—Director Compensation.” Therefore, it is not possible to determine the benefits that will be received in the future by participants in the 2013 Plan. However, our directors and executive officers are eligible to receive awards under the 2013 Plan and could benefit from the grant of equity-based awards under the 2013 Plan.

The following table sets forth, with respect to the individuals and groups identified therein, the benefits and amounts that have been granted to such individuals and groups under the 2013 Plan through April 3, 2019:

<u>Name and Position</u>	<u>Shares Subject to Stock Options Granted(#)(1)</u>	<u>Shares Subject to Restricted Stock and Restricted Stock Unit Awards Granted(#)(1)</u>
Named Executives		
Craig A. Wheeler, President and Chief Executive Officer	1,279,500	1,045,250
Michelle Robertson, Chief Financial Officer	127,000	148,190
Scott M. Storer, former Senior Vice President and Chief Financial Officer	62,500	—
Santiago Arroyo, M.D., Ph.D., Senior Vice President, Development and Chief Medical Officer	280,000	232,000
Young Kwon, Ph.D., Chief Business Officer	314,200	340,624
Anthony Manning, Chief Scientific Officer	187,264	274,000
All current executive officers as a group (8 persons)	2,846,102	2,817,382
Non-executive officer current directors/director nominees		
James R. Sulat	84,312	15,590
Georges Gemayel	50,062	10,090
Bruce L. Downey	84,312	15,590
Thomas P. Koestler	84,312	15,590
Corey N. Fishman	53,062	10,090
Elizabeth Stoner	84,312	15,590
Steven C. Gilman	53,062	10,090
Jose-Carlos Gutiérrez-Ramos	50,062	10,090
All non-executive officer current directors as a group (8 persons)	543,496	102,720
Each associate of any such directors, executive officers or nominees	—	—
Each other person who received or is to receive 5 percent of such options, warrants or rights	—	—
All employees, including all current officers who are not executive officers, as a group (116 persons)	3,993,875	4,065,739

(1) The closing price per share of our common stock on The Nasdaq Global Select Market on April 3, 2019 was \$14.54.

Interest of Certain Persons in the Plan

Stockholders should understand that our executive officers and non-employee directors may be considered to have an interest in the approval of the amendment and restatement of the 2013 Plan because they may in the future receive awards under the 2013 Plan. Nevertheless, the Board believes that it is important to provide incentives and rewards for superior performance and the retention of experienced directors and officers by implementing the amendment and restatement of the 2013 Plan.

ADDITIONAL INFORMATION

Stockholder Proposals

Stockholders who intend to have a proposal considered for inclusion in our proxy materials for presentation at our 2020 annual meeting of stockholders pursuant to Rule 14a-8 under the Exchange Act must submit the proposal to us at our principal executive offices, 301 Binney Street, Cambridge, Massachusetts 02142. Any proposal submitted pursuant to Rule 14a-8 must be received by us no later than January 2, 2020. We suggest that proponents submit their Rule 14a-8 proposals by certified mail, return receipt requested, addressed to our Secretary, Alejandra Carvajal, Esq.

In addition, our by-laws establish an advance notice procedure with regard to director nominations and other proposals by stockholders that are not intended to be included in our proxy materials, but that a stockholder instead wishes to present directly at an annual meeting. To be properly brought before the 2020 annual meeting of stockholders, a notice of the nomination or the matter the stockholder wishes to present at the meeting must be in writing and received by our Secretary at our principal offices not later than March 21, 2020 and not before February 20, 2020. However, if the 2020 annual meeting of stockholders is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the Annual Meeting, notice must be received no earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (1) the 90th day prior to such annual meeting and (2) the 10th day following the date on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever occurs first. Our by-laws also specify requirements relating to the content of the notice that stockholders must provide in order for a director nomination or other proposal to be properly presented at the 2020 annual meeting of stockholders.

Householding of Annual Meeting Materials

The SEC has adopted rules that permit companies and intermediaries (such as banks and brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as “householding,” potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of banks and brokers with account holders who are our stockholders will be householding our proxy materials. A single proxy statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your bank or broker that it will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement and annual report, please notify your bank or broker, direct your written request to Momenta Pharmaceuticals, Inc., 301 Binney Street, Cambridge, Massachusetts 02142, Attention: Alejandra Carvajal, Chief Legal Officer, General Counsel and Secretary, or contact Momenta Pharmaceuticals, Inc. by telephone at (617) 491-9700 or by facsimile at (617) 621-0431. In addition, we will promptly deliver, upon written or oral request to the address or telephone number above, a separate copy of our proxy statement or annual report to a stockholder at a shared address to which a single copy of the proxy statement or annual report was delivered. Stockholders who currently receive multiple copies of the proxy statement at their address and would like to request householding of their communications should contact their bank or broker.

Other Matters

Our board of directors is not aware of any matter to be presented for action at the Annual Meeting other than the matters referred to above and does not intend to bring any other matters

before the Annual Meeting. However, if other matters should properly come before the Annual Meeting, it is intended that holders of the proxies will vote thereon in their discretion.

General

The accompanying proxy is solicited by and on behalf of our board of directors, whose notice of meeting is attached to this proxy statement, and the entire cost of such solicitation will be borne by us.

In addition to the use of the mails, proxies may be solicited by personal interview, telephone and email by directors, officers and other employees of Momenta who will not be specially compensated for these services. We will also request that brokers, nominees, custodians and other fiduciaries forward soliciting materials to the beneficial owners of shares held of record by such brokers, nominees, custodians and other fiduciaries. We will reimburse such persons for their reasonable expenses in connection therewith.

We have also engaged D.F. King to assist in the solicitation of proxies and provide related advice and informational support for a services fee and the reimbursement of customary disbursements that are not expected to exceed \$8,000 in the aggregate.

Certain information contained in this proxy statement relating to the occupations and security holdings of our directors and officers is based upon information received from the individual directors and officers.

WE WILL FURNISH, WITHOUT CHARGE, A COPY OF OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2018, INCLUDING CONSOLIDATED FINANCIAL STATEMENTS BUT NOT INCLUDING EXHIBITS, TO EACH OF OUR STOCKHOLDERS OF RECORD ON APRIL 23, 2019, AND TO EACH BENEFICIAL STOCKHOLDER ON THAT DATE UPON WRITTEN REQUEST MADE TO ALEJANDRA CARVAJAL, SECRETARY, MOMENTA PHARMACEUTICALS, INC., 301 BINNEY STREET, CAMBRIDGE, MASSACHUSETTS 02142. A REASONABLE FEE WILL BE CHARGED FOR COPIES OF REQUESTED EXHIBITS.

PLEASE VOTE YOUR SHARES OVER THE INTERNET OR BY TELEPHONE AS PROVIDED IN THE INSTRUCTIONS SET FORTH ON THE ENCLOSED PROXY CARD, OR COMPLETE, DATE, SIGN AND RETURN THE PROXY CARD AT YOUR EARLIEST CONVENIENCE IN THE ENCLOSED RETURN ENVELOPE. A PROMPT RETURN OF YOUR PROXY CARD WILL BE APPRECIATED AS IT WILL SAVE THE EXPENSE OF FURTHER MAILINGS.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "Craig A. Wheeler", followed by a long horizontal line extending to the right.

Craig A. Wheeler
President and Chief Executive Officer

Cambridge, Massachusetts

April 26, 2019

EXHIBIT A
MOMENTA PHARMACEUTICALS, INC.
2013 INCENTIVE AWARD PLAN
(as amended and restated)

ARTICLE 1.

PURPOSE

The purpose of the Momenta Pharmaceuticals, Inc. 2013 Incentive Award Plan (as it may be amended or restated from time to time, the “*Plan*”) is to promote the success and enhance the value of Momenta Pharmaceuticals, Inc. (the “*Company*”) by linking the individual interests of the members of the Board, Employees, and Consultants to those of Company stockholders and by providing such individuals with an incentive for outstanding performance to generate superior returns to Company stockholders. The Plan is further intended to provide flexibility to the Company in its ability to motivate, attract, and retain the services of members of the Board, Employees, and Consultants upon whose judgment, interest, and special effort the successful conduct of the Company’s operation is largely dependent.

ARTICLE 2.

DEFINITIONS AND CONSTRUCTION

Wherever the following terms are used in the Plan they shall have the meanings specified below, unless the context clearly indicates otherwise. The singular pronoun shall include the plural where the context so indicates.

2.1 “*Administrator*” shall mean the entity that conducts the general administration of the Plan as provided in Article 12. With reference to the duties of the Committee under the Plan which have been delegated to one or more persons pursuant to Section 12.6, or as to which the Board has assumed, the term “*Administrator*” shall refer to such person(s) unless the Committee or the Board has revoked such delegation or the Board has terminated the assumption of such duties.

2.2 “*Applicable Accounting Standards*” shall mean Generally Accepted Accounting Principles in the United States, International Financial Reporting Standards or such other accounting principles or standards as may apply to the Company’s financial statements under United States federal securities laws from time to time.

2.3 “*Applicable Law*” shall mean any applicable law, including without limitation: (i) provisions of the Code, the Securities Act, the Exchange Act and any rules or regulations thereunder; (ii) corporate, securities, tax or other laws, statutes, rules, requirements or regulations, whether federal, state, local or foreign; and (iii) rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded.

2.4 “*Award*” shall mean an Option, a Restricted Stock award, a Restricted Stock Unit award, a Performance Award, a Dividend Equivalents award, a Stock Payment award or a Stock Appreciation Right, which may be awarded or granted under the Plan (collectively, “*Awards*”).

2.5 “*Award Agreement*” shall mean any written notice, agreement, terms and conditions, contract or other instrument or document evidencing an Award, including through electronic medium, which shall contain such terms and conditions with respect to an Award as the Administrator shall determine consistent with the Plan.

2.6 “*Award Limit*” shall mean with respect to Awards that shall be payable in Shares or in cash, as the case may be, the respective limit set forth in Section 3.3.

2.7 “*Board*” shall mean the Board of Directors of the Company.

2.8 “*Change in Control*” shall mean and includes each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission) whereby any “person” or related “group” of “persons” (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its subsidiaries, an employee benefit plan maintained by the Company or any of its subsidiaries or a “person” that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company’s securities outstanding immediately after such acquisition; or

(b) During any period of two consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new Director(s) (other than a Director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in Section 2.8(a) or 2.8(c)) whose election by the Board or nomination for election by the Company’s stockholders was approved by a vote of at least two-thirds of the Directors then still in office who either were Directors at the beginning of the two-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination or (y) a sale or other disposition of all or substantially all of the Company’s assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) which results in the Company’s voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company’s assets or otherwise succeeds to the business of the Company (the Company or such person, the “*Successor Entity*”)) directly or indirectly, at least a majority of the combined voting power of the Successor Entity’s outstanding voting securities immediately after the transaction, and

(ii) after which no person or group beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; *provided, however*, that no person or group shall be treated for purposes of this Section 2.8(c)(ii) as beneficially owning 50% or more of the combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction; or

(d) The liquidation or dissolution of the Company.

Notwithstanding the foregoing, if a Change in Control constitutes a payment event with respect to any portion of an Award that provides for the deferral of compensation and is subject to Section 409A of the Code, the transaction or event described in subsection (a), (b), (c) or (d) with respect to such Award (or portion thereof) must also constitute a “change in control event,” as defined in Treasury Regulation Section 1.409A-3(i)(5) to the extent required by Section 409A.

The Committee shall have full and final authority, which shall be exercised in its sole discretion, to determine conclusively whether a Change in Control of the Company has occurred pursuant to the above definition, and the date of the occurrence of such Change in Control and any incidental matters relating thereto; provided that any exercise of authority in conjunction with a determination of whether

a Change in Control is a “change in control event” as defined in Treasury Regulation Section 1.409A-3(i)(5) shall be consistent with such regulation.

2.9 “*Code*” shall mean the Internal Revenue Code of 1986, as amended from time to time, together with the regulations and official guidance promulgated thereunder.

2.10 “*Committee*” shall mean the Compensation Committee of the Board, or another committee or subcommittee of the Board or the Compensation Committee, appointed as provided in Section 12.1.

2.11 “*Common Stock*” shall mean the common stock of the Company, par value \$0.0001 per share.

2.12 “*Company*” shall have the meaning set forth in Article 1.

2.13 “*Consultant*” shall mean any consultant or adviser engaged to provide services to the Company or any Subsidiary that qualifies as a consultant under the applicable rules of the Securities and Exchange Commission for registration of shares on a Form S-8 Registration Statement.

2.14 “*Director*” shall mean a member of the Board, as constituted from time to time.

2.15 “*Disability*” shall mean that the Holder is either (a) unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve months, or (b) by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve months, receiving income replacement benefits for a period of not less than three months under an accident and health plan covering employees of the Company. For purposes of the Plan, a Holder shall be deemed to have incurred a Disability if the Holder is determined to be totally disabled by the Social Security Administration or in accordance with the applicable disability insurance program of the Company’s, provided that the definition of “disability” applied under such disability insurance program complies with the requirements of this definition.

2.16 “*Dividend Equivalent*” shall mean a right to receive the equivalent value (in cash or Shares) of dividends paid on Shares, awarded under Section 9.2.

2.17 “*DRO*” shall mean a domestic relations order as defined by the Code or Title I of the Employee Retirement Income Security Act of 1974, as amended from time to time, or the rules thereunder.

2.18 “*Effective Date*” shall mean March 5, 2013.

2.19 “*Eligible Individual*” shall mean any person who is an Employee, a Consultant or a Non-Employee Director, as determined by the Committee.

2.20 “*Employee*” shall mean any officer or other employee (as determined in accordance with Section 3401(c) of the Code and the Treasury Regulations thereunder) of the Company or of any Subsidiary.

2.21 “*Equity Restructuring*” shall mean a nonreciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of Shares (or other securities of the Company) or the share price of Common Stock (or other securities) and causes a change in the per-share value of the Common Stock underlying outstanding Awards.

2.22 “*Exchange Act*” shall mean the Securities Exchange Act of 1934, as amended from time to time.

2.23 “*Expiration Date*” shall have the meaning given to such term in Section 13.1.

2.24 “*Fair Market Value*” shall mean, as of any given date, the value of a Share determined as follows:

(a) If the Common Stock is listed on any (i) established securities exchange (such as the New York Stock Exchange, the NASDAQ Global Market and the NASDAQ Global Select Market), (ii) national market system or (iii) automated quotation system on which the Shares are listed, quoted or traded, its Fair Market Value shall be the closing sales price for a Share as quoted on such exchange or system for such date or, if there is no closing sales price for a Share on the date in question, the closing sales price for a Share on the last preceding date for which such quotation exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(b) If the Common Stock is neither listed on an established securities exchange, national market system or automated quotation system, its Fair Market Value shall be established by the Administrator in good faith.

2.25 “*Full Value Award*” shall mean any Award other than an Option or a Stock Appreciation Right and that is settled by the issuance of Shares.

2.26 “*Greater Than 10% Stockholder*” shall mean an individual then owning (within the meaning of Section 424(d) of the Code) more than 10% of the total combined voting power of all classes of stock of the Company or any subsidiary corporation (as defined in Section 424(f) of the Code) or parent corporation thereof (as defined in Section 424(e) of the Code).

2.27 “*Holder*” shall mean a person who has been granted an Award.

2.28 “*Incentive Stock Option*” shall mean an Option that is intended to qualify as an incentive stock option and conforms to the applicable provisions of Section 422 of the Code.

2.29 “*Non-Employee Director*” shall mean a Director of the Company who is not an Employee.

2.30 “*Non-Employee Director Equity Compensation Policy*” shall have the meaning set forth in Section 4.6.

2.31 “*Non-Qualified Stock Option*” shall mean an Option that is not an Incentive Stock Option.

2.32 “*Option*” shall mean a right to purchase Shares at a specified exercise price, granted under Article 5. An Option shall be either a Non-Qualified Stock Option or an Incentive Stock Option; *provided, however*, that Options granted to Non-Employee Directors and Consultants shall only be Non-Qualified Stock Options.

2.33 “*Option Term*” shall have the meaning set forth in Section 5.4.

2.34 “*Parent*” shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities ending with the Company if each of the entities other than the Company beneficially owns, at the time of the determination, securities or interests representing at least fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.35 “*Performance Award*” shall mean a cash bonus award, stock bonus award, performance award or incentive award that is paid in cash, Shares or a combination of both, awarded under Section 9.1.

2.36 “*Performance Criteria*” shall mean the criteria (and adjustments) that the Committee selects for an Award for purposes of establishing the Performance Goal or Performance Goals for a Performance Period, determined as follows:

(a) The Performance Criteria that may be used to establish Performance Goals may include, but is not limited to, the following: (i) net earnings (either before or after one or more of the following: (A) interest, (B) taxes, (C) depreciation and (D) amortization); (ii) gross or net sales or

revenue; (iii) net income (either before or after taxes); (iv) adjusted net income; (v) operating earnings or profit; (vi) cash flow (including, but not limited to, operating cash flow and free cash flow); (vii) return on assets; (viii) return on capital; (ix) return on stockholders' equity; (x) total stockholder return; (xi) return on sales; (xii) gross or net profit or operating margin; (xiii) costs; (xiv) expenses; (xv) working capital; (xvi) earnings per share; (xvii) adjusted earnings per share; (xviii) price per share; (xix) regulatory body approval for commercialization of a product; (xx) implementation, completion or attainment of objectively determinable objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; (xxi) market share; and (xxii) economic value, any of which may be measured either in absolute terms or as compared to any incremental increase or decrease or as compared to results of a peer group or to market performance indicators or indices.

(b) The Administrator, in its sole discretion, may provide that one or more adjustments shall be made to one or more of the Performance Goals. Such adjustments may include one or more of the following: (i) items related to a change in accounting principle; (ii) items relating to financing activities; (iii) expenses for restructuring or productivity initiatives; (iv) other non-operating items; (v) items related to acquisitions; (vi) items attributable to the business operations of any entity acquired by the Company during the Performance Period; (vii) items related to the disposal of a business or segment of a business; (viii) items related to discontinued operations that do not qualify as a segment of a business under Applicable Accounting Standards; (ix) items attributable to any stock dividend, stock split, combination or exchange of stock occurring during the Performance Period; (x) any other items of significant income or expense which are determined to be appropriate adjustments; (xi) items relating to unusual or extraordinary corporate transactions, events or developments, (xii) items related to amortization of acquired intangible assets; (xiii) items that are outside the scope of the Company's core, on-going business activities; (xiv) items related to acquired in-process research and development; (xv) items relating to changes in tax laws; (xvi) items relating to major licensing or partnership arrangements; (xvii) items relating to asset impairment charges; (xviii) items relating to gains or losses for litigation, arbitration and contractual settlements; or (xix) items relating to any other unusual or nonrecurring events or changes in Applicable Law, accounting principles or business conditions.

2.37 "*Performance Goals*" shall mean, for a Performance Period, one or more goals established in writing by the Administrator for the Performance Period based upon one or more Performance Criteria. Depending on the Performance Criteria used to establish such Performance Goals, the Performance Goals may be expressed in terms of overall Company performance or the performance of a Subsidiary, division, business unit, or an individual.

2.38 "*Performance Period*" shall mean one or more periods of time, which may be of varying and overlapping durations, as the Administrator may select, over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Holder's right to, and the payment of, an Award.

2.39 "*Performance Stock Unit*" shall mean a Performance Award awarded under Section 9.1 which is denominated in units of value including dollar value of Shares.

2.40 "*Permitted Transferee*" shall mean, with respect to a Holder, any "family member" of the Holder, as defined in the instructions to Form S-8 under the Securities Act.

2.41 "*Plan*" shall have the meaning set forth in Article 1.

2.42 "*Prior Plans*" shall mean, collectively, the following plans of the Company: the Amended and Restated 2002 Stock Incentive Plan and the 2004 Stock Incentive Plan, in each case as such plan may be or may have been amended from time to time.

2.43 “*Program*” shall mean any program adopted by the Administrator pursuant to the Plan containing the terms and conditions intended to govern a specified type of Award granted under the Plan and pursuant to which such type of Award may be granted under the Plan.

2.44 “*Restricted Stock*” shall mean Common Stock awarded under Article 7 that is subject to certain restrictions and may be subject to risk of forfeiture or repurchase.

2.45 “*Restricted Stock Units*” shall mean the right to receive Shares awarded under Article 8.

2.46 “*Securities Act*” shall mean the Securities Act of 1933, as amended.

2.47 “*Shares*” shall mean shares of Common Stock.

2.48 “*Stock Appreciation Right*” shall mean a stock appreciation right granted under Article 10.

2.49 “*Stock Appreciation Right Term*” shall have the meaning set forth in Section 10.4.

2.50 “*Stock Payment*” shall mean (a) a payment in the form of Shares, or (b) an option or other right to purchase Shares, as part of a bonus, deferred compensation or other arrangement, awarded under Section 9.3.

2.51 “*Subsidiary*” shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities other than the last entity in the unbroken chain beneficially owns, at the time of the determination, securities or interests representing at least fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.52 “*Substitute Award*” shall mean an Award granted under the Plan upon the assumption of, or in substitution for, outstanding equity awards previously granted by a company or other entity in connection with a corporate transaction, such as a merger, combination, consolidation or acquisition of property or stock; *provided, however*, that in no event shall the term “Substitute Award” be construed to refer to an award made in connection with the cancellation and repricing of an Option or Stock Appreciation Right.

2.53 “*Termination of Service*” shall mean:

(a) As to a Consultant, the time when the engagement of a Holder as a Consultant to the Company or a Subsidiary is terminated for any reason, with or without cause, including, without limitation, by resignation, discharge, death or retirement, but excluding terminations where the Consultant simultaneously commences or remains in employment or service with the Company or any Subsidiary.

(b) As to a Non-Employee Director, the time when a Holder who is a Non-Employee Director ceases to be a Director for any reason, including, without limitation, a termination by resignation, failure to be elected, death or retirement, but excluding terminations where the Holder simultaneously commences or remains in employment or service with the Company or any Subsidiary.

(c) As to an Employee, the time when the employee-employer relationship between a Holder and the Company or any Subsidiary is terminated for any reason, including, without limitation, a termination by resignation, discharge, death, disability or retirement; but excluding terminations where the Holder simultaneously commences or remains in employment or service with the Company or any Subsidiary.

The Administrator, in its sole discretion, shall determine the effect of all matters and questions relating to any Termination of Service, including, without limitation, the question of whether a Termination of Service resulted from a discharge for cause and all questions of whether particular leaves of absence constitute a Termination of Service; *provided, however*, that, with respect to Incentive Stock Options, unless the Administrator otherwise provides in the terms of the Program, the Award

Agreement or otherwise, or as otherwise required by Applicable Law, a leave of absence, change in status from an employee to an independent contractor or other change in the employee-employer relationship shall constitute a Termination of Service only if, and to the extent that, such leave of absence, change in status or other change interrupts employment for the purposes of Section 422(a)(2) of the Code and the then-applicable regulations and revenue rulings under said Section. For purposes of the Plan, a Holder's employee-employer relationship or consultancy relations shall be deemed to be terminated in the event that the Subsidiary employing or contracting with such Holder ceases to remain an Subsidiary following any merger, sale of stock or other corporate transaction or event (including, without limitation, a spin-off).

ARTICLE 3.

SHARES SUBJECT TO THE PLAN

3.1 *Number of Shares.*

(a) Subject to adjustment as provided in Section 3.1(b) and Section 13.2, the aggregate number of Shares which may be issued or transferred pursuant to Awards under the Plan is the sum of (i) 21,200,000 Shares, plus (ii) the number of Shares subject to any option or stock appreciation right granted under a Prior Plan on or prior to December 31, 2012 to the extent such Shares become available for issuance under this Plan pursuant to Section 3.1(b) below thereafter, plus (iii) (A) 1.35 Shares multiplied by the number of Shares subject to any award granted under a Prior Plan on or prior to December 31, 2012 other than an option or stock appreciation right to the extent such Shares became available for issuance under this Plan pursuant to Section 3.1(b) below prior to June 9, 2015 and (B) 1.67 Shares multiplied by the number of Shares subject to any award granted under a Prior Plan on or prior to December 31, 2012 to the extent such Shares become available for issuance under this Plan pursuant to Section 3.1(b) below on or after June 9, 2015; *provided, however*, that in no event shall the number of Shares which shall become available for issuance or transfer pursuant to Awards under the Plan pursuant to clauses (ii) and (iii) above exceed an aggregate of 5,288,836 Shares. Any Shares that are subject to Awards of Options or Stock Appreciation Rights granted under the Plan shall be counted against this limit as one (1) Share for every one (1) Share granted. Any Shares that are subject to Awards granted under the Plan that are other than Options or Stock Appreciation Rights shall be counted against this limit as 1.35 Shares if the Award is granted prior to June 9, 2015 and as 1.67 Shares if the Award is granted on or after June 9, 2015 for every one (1) Share granted. After the date that the Plan is approved by the Company's shareholders, no awards may be granted under any Prior Plan, however, any awards under any Prior Plan that are outstanding as of the date that the Plan is approved by the Company's shareholders shall continue to be subject to the terms and conditions of such Prior Plan. Notwithstanding anything in this Section 3.1 to the contrary, the number of Shares that may be issued or transferred pursuant to Awards under the Plan (including Incentive Stock Options) shall not exceed an aggregate of 26,488,836 Shares, subject to adjustment pursuant to Section 13.2.

(b) If (i) any Shares subject to an Award are forfeited or expire or an Award is settled for cash (in whole or in part), or (ii) after the Effective Date any Shares subject to an award granted under any Prior Plan on or prior to December 31, 2012 are forfeited or expire or an award granted under any Prior Plan on or prior to December 31, 2012 is settled for cash (in whole or in part), the Shares subject to such Award or award under the Prior Plan shall, to the extent of such forfeiture, expiration or cash settlement, again be available for Awards under the Plan, in accordance with Section 3.1(d) below. Notwithstanding anything to the contrary contained herein, the following Shares shall not be added to the Shares authorized for grant under Section 3.1(a) and shall not be available for future grants of Awards: (i) Shares tendered by a Holder or withheld by the Company in payment of the exercise price of an Option; (ii) Shares tendered by the Holder

or withheld by the Company to satisfy any tax withholding obligation with respect to an Award; (iii) Shares subject to a Stock Appreciation Right that are not issued in connection with the stock settlement of the Stock Appreciation Right on exercise thereof; and (iv) Shares purchased on the open market with the cash proceeds from the exercise of Options. Any Shares repurchased by the Company under Section 7.4 at the same or lower price paid by the Holder so that such Shares are returned to the Company shall again be available for Awards. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards shall not be counted against the Shares available for issuance under the Plan. Notwithstanding the provisions of this Section 3.1(b), no Shares may again be optioned, granted or awarded if such action would cause an Incentive Stock Option to fail to qualify as an incentive stock option under Section 422 of the Code.

(c) Substitute Awards shall not reduce the Shares authorized for grant under the Plan. Additionally, in the event that a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines has shares available under a pre-existing plan approved by stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may be used for Awards under the Plan and shall not reduce the Shares authorized for grant under the Plan; provided that Awards using such available Shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not employed by or providing services to the Company or its Subsidiaries immediately prior to such acquisition or combination.

(d) Any Shares that again become available for grant pursuant to this Section 3.1 shall be added back as: (i) one (1) Share if such Shares were subject to an Option or a Stock Appreciation Right granted under the Plan or an option or stock appreciation right granted under any Prior Plan, (ii) as 1.35 Shares if such Shares were subject to Awards other than Options or Stock Appreciation Rights granted under the Plan prior to June 9, 2015 or if such Shares became available for grant under the Plan pursuant to Section 3.1(b)(ii) prior to June 9, 2015, and (iii) as 1.67 Shares if such Shares were subject to Awards other than Options or Stock Appreciation Rights granted under the Plan on or after June 9, 2015 or if such Shares became available for grant under the Plan pursuant to Section 3.1(b)(ii) on or after June 9, 2015.

3.2 *Stock Distributed.* Any Shares distributed pursuant to an Award may consist, in whole or in part, of authorized and unissued Common Stock, treasury Common Stock or Common Stock purchased on the open market.

3.3 *Limitation on Number of Shares Subject to Awards.* Notwithstanding any provision in the Plan to the contrary, and subject to Section 13.2, the maximum aggregate number of Shares with respect to one or more Awards that may be granted to any one person other than a Non-Employee Director during any calendar year shall be 2,500,000, the maximum aggregate number of Shares with respect to one or more Awards that may be granted to a Non-Employee Director during any calendar year shall be 100,000 and the maximum aggregate amount of cash that may be paid in cash to any one person during any calendar year with respect to one or more Awards initially payable in cash shall be five million dollars.

ARTICLE 4.

GRANTING OF AWARDS

4.1 *Participation.* The Administrator may, from time to time, select from among all Eligible Individuals, those to whom an Award shall be granted and shall determine the nature and amount of

each Award, which shall not be inconsistent with the requirements of the Plan. Except as provided in Section 4.6 regarding the grant of Awards pursuant to the Non-Employee Director Equity Compensation Policy, no Eligible Individual shall have any right to be granted an Award pursuant to the Plan.

4.2 *Award Agreement.* Each Award shall be evidenced by an Award Agreement that sets forth the terms, conditions and limitations for such Award, which may include the term of the Award, the provisions applicable in the event of the Holder's Termination of Service, and the Company's authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind an Award. Award Agreements evidencing Incentive Stock Options shall contain such terms and conditions as may be necessary to meet the applicable provisions of Section 422 of the Code.

4.3 *Limitations Applicable to Section 16 Persons.* Notwithstanding any other provision of the Plan, the Plan, and any Award granted or awarded to any individual who is then subject to Section 16 of the Exchange Act, shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including Rule 16b-3 of the Exchange Act and any amendments thereto) that are requirements for the application of such exemptive rule. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

4.4 *At-Will Employment; Voluntary Participation.* Nothing in the Plan or in any Program or Award Agreement hereunder shall confer upon any Holder any right to continue in the employ of, or as a Director or Consultant for, the Company or any Subsidiary, or shall interfere with or restrict in any way the rights of the Company and any Subsidiary, which rights are hereby expressly reserved, to discharge any Holder at any time for any reason whatsoever, with or without cause, and with or without notice, or to terminate or change all other terms and conditions of employment or engagement, except to the extent expressly provided otherwise in a written agreement between the Holder and the Company or any Subsidiary. Participation by each Holder in the Plan shall be voluntary and nothing in the Plan shall be construed as mandating that any Eligible Individual shall participate in the Plan.

4.5 *Foreign Holders.* Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in countries other than the United States in which the Company and its Subsidiaries operate or have Employees, Non-Employee Directors or Consultants, or in order to comply with the requirements of any foreign securities exchange, the Administrator, in its sole discretion, shall have the power and authority to: (a) determine which Subsidiaries shall be covered by the Plan; (b) determine which Eligible Individuals outside the United States are eligible to participate in the Plan; (c) modify the terms and conditions of any Award granted to Eligible Individuals outside the United States to comply with applicable foreign laws or listing requirements of any such foreign securities exchange; (d) establish subplans and modify exercise procedures and other terms and procedures, to the extent such actions may be necessary or advisable (any such subplans and/or modifications shall be attached to the Plan as appendices); *provided, however*, that no such subplans and/or modifications shall increase the share limitations contained in 3.1 and 3.3; and (e) take any action, before or after an Award is made, that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals or listing requirements of any such foreign securities exchange. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate Applicable Law. For purposes of the Plan, all references to foreign laws, rules, regulations or taxes shall be references to the laws, rules, regulations and taxes of any applicable jurisdiction other than the United States or a political subdivision thereof.

4.6 *Non-Employee Director Awards.* The Administrator, in its sole discretion, may provide that Awards granted to Non-Employee Directors shall be granted pursuant to a written nondiscretionary formula established by the Administrator (the "*Non-Employee Director Equity Compensation Policy*"), subject to the limitations of the Plan. The Non-Employee Director Equity Compensation Policy shall

set forth the type of Award(s) to be granted to Non-Employee Directors, the number of Shares to be subject to Non-Employee Director Awards (subject to the limits of the Plan), the conditions on which such Awards shall be granted, become exercisable and/or payable and expire, and such other terms and conditions as the Administrator shall determine in its sole discretion. The Non-Employee Director Equity Compensation Policy may be modified by the Administrator from time to time in its sole discretion.

4.7 *Stand-Alone and Tandem Awards.* Awards granted pursuant to the Plan may, in the sole discretion of the Administrator, be granted either alone, in addition to, or in tandem with, any other Award granted pursuant to the Plan. Awards granted in addition to or in tandem with other Awards may be granted either at the same time as or at a different time from the grant of such other Awards.

ARTICLE 5.

GRANTING OF OPTIONS

5.1 *Granting of Options to Eligible Individuals.* The Administrator is authorized to grant Options to Eligible Individuals from time to time, in its sole discretion, on such terms and conditions as it may determine, which shall not be inconsistent with the Plan.

5.2 *Qualification of Incentive Stock Options.* No Incentive Stock Option shall be granted to any person who is not an Employee of the Company or any subsidiary corporation (as defined in Section 424(f) of the Code) of the Company. No person who qualifies as a Greater Than 10% Stockholder may be granted an Incentive Stock Option unless such Incentive Stock Option conforms to the applicable provisions of Section 422 of the Code. Any Incentive Stock Option granted under the Plan may be modified by the Administrator, with the consent of the Holder, to disqualify such Option from treatment as an “incentive stock option” under Section 422 of the Code. To the extent that the aggregate Fair Market Value of stock with respect to which “incentive stock options” (within the meaning of Section 422 of the Code, but without regard to Section 422(d) of the Code) are exercisable for the first time by a Holder during any calendar year under the Plan, and all other plans of the Company and any parent or subsidiary corporation thereof (each as defined in Section 424(e) and 424(f) of the Code, respectively), exceeds \$100,000, the Options shall be treated as Non-Qualified Stock Options to the extent required by Section 422 of the Code. The rule set forth in the immediately preceding sentence shall be applied by taking Options and other “incentive stock options” into account in the order in which they were granted and the Fair Market Value of stock shall be determined as of the time the respective options were granted.

5.3 *Option Exercise Price.* The exercise price per Share subject to each Option shall be set by the Administrator, but shall not be less than 100% of the Fair Market Value of a Share on the date the Option is granted (or, as to Incentive Stock Options, on the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code). In addition, in the case of Incentive Stock Options granted to a Greater Than 10% Stockholder, such price shall not be less than 110% of the Fair Market Value of a Share on the date the Option is granted (or the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code).

5.4 *Option Term.* The term of each Option (the “*Option Term*”) shall be set by the Administrator in its sole discretion; *provided, however*, that the Option Term shall not be more than ten (10) years from the date the Option is granted, or five (5) years from the date an Incentive Stock Option is granted to a Greater Than 10% Stockholder. The Administrator shall determine the time period, including the time period following a Termination of Service, during which the Holder has the right to exercise the vested Options, which time period may not extend beyond the last day of the Option Term. Except as limited by the requirements of Section 409A, the Administrator may extend the Option Term of any outstanding Option, and may extend the time period during which vested Options may be exercised, in connection with any Termination of Service of the Holder, and may amend,

subject to Section 13.1, any other term or condition of such Option relating to such a Termination of Service.

5.5 *Option Vesting.*

(a) The period during which the right to exercise, in whole or in part, an Option vests in the Holder shall be set by the Administrator and the Administrator may determine that an Option may not be exercised in whole or in part for a specified period after it is granted. Such vesting may be based on service with the Company or any Subsidiary, any of the Performance Criteria, or any other criteria selected by the Administrator, and, except as limited by the Plan, at any time after the grant of an Option, the Administrator, in its sole discretion and subject to whatever terms and conditions it selects, may accelerate the period during which an Option vests.

(b) No portion of an Option which is unexercisable at a Holder's Termination of Service shall thereafter become exercisable, except as may be otherwise provided by the Administrator either in the applicable Program, the Award Agreement evidencing the grant of an Option, or by action of the Administrator following the grant of the Option. Unless otherwise determined by the Administrator in the Award Agreement or by action of the Administrator following the grant of the Option, the portion of an Option that is unexercisable at a Holder's Termination of Service shall automatically expire thirty (30) days following such Termination of Service.

5.6 *Substitute Awards.* Notwithstanding the foregoing provisions of this Article 5 to the contrary, in the case of an Option that is a Substitute Award, the price per share of the Shares subject to such Option may be less than the Fair Market Value per share on the date of grant; *provided* that the excess of: (a) the aggregate Fair Market Value (as of the date such Substitute Award is granted) of the Shares subject to the Substitute Award, over (b) the aggregate exercise price thereof does not exceed the excess of: (x) the aggregate fair market value (as of the time immediately preceding the transaction giving rise to the Substitute Award, such fair market value to be determined by the Administrator) of the shares of the predecessor entity that were subject to the grant assumed or substituted for by the Company, over (y) the aggregate exercise price of such shares.

ARTICLE 6.

EXERCISE OF OPTIONS

6.1 *Partial Exercise.* An exercisable Option may be exercised in whole or in part. However, an Option shall not be exercisable with respect to fractional Shares and the Administrator may require that, by the terms of the Option, a partial exercise must be with respect to a minimum number of Shares.

6.2 *Manner of Exercise.* Unless otherwise indicated in an Award Agreement, all or a portion of an exercisable Option shall be deemed exercised upon delivery of all of the following to the Secretary of the Company, the stock administrator of the Company or such other person or entity designated by the Administrator, or his, her or its office, as applicable:

(a) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Option, or a portion thereof, is exercised. The notice shall be signed by the Holder or other person then entitled to exercise the Option or such portion of the Option;

(b) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with Applicable Law. The Administrator, in its sole discretion, may also take whatever additional actions it deems appropriate to effect such compliance including, without limitation, placing legends on share certificates and issuing stop-transfer notices to agents and registrars;

(c) In the event that the Option shall be exercised pursuant to Section 11.3 by any person or persons other than the Holder, appropriate proof of the right of such person or persons to exercise the Option, as determined in the sole discretion of the Administrator; and

(d) Full payment of the exercise price and applicable withholding taxes to the stock administrator of the Company for the Shares with respect to which the Option, or portion thereof, is exercised, in a manner permitted by 11.1 and 11.2.

6.3 *Notification Regarding Disposition.* The Holder shall give the Company prompt written or electronic notice of any disposition of Shares acquired by exercise of an Incentive Stock Option which occurs within (a) two years from the date of granting (including the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code) such Option to such Holder, or (b) one year after the transfer of such Shares to such Holder.

ARTICLE 7.

AWARD OF RESTRICTED STOCK

7.1 *Award of Restricted Stock.*

(a) The Administrator is authorized to grant Restricted Stock to Eligible Individuals, and shall determine the terms and conditions, including the restrictions applicable to each award of Restricted Stock, which terms and conditions shall not be inconsistent with the Plan, and may impose such conditions on the issuance of such Restricted Stock as it deems appropriate.

(b) The Administrator shall establish the purchase price, if any, and form of payment for Restricted Stock; *provided, however,* that if a purchase price is charged, such purchase price shall be no less than the par value, if any, of the Shares to be purchased, unless otherwise permitted by Applicable Law. In all cases, legal consideration shall be required for each issuance of Restricted Stock.

7.2 *Rights as Stockholders.* Subject to Section 7.4, upon issuance of Restricted Stock, the Holder shall have, unless otherwise provided by the Administrator, all the rights of a stockholder with respect to said Shares, subject to the restrictions in the applicable Program or in each individual Award Agreement, including the right to receive all dividends and other distributions paid or made with respect to the Shares; *provided, however,* that, in the sole discretion of the Administrator, any extraordinary distributions with respect to the Shares shall be subject to the restrictions set forth in Section 7.3. In addition, with respect to a share of Restricted Stock, dividends which are paid prior to vesting shall only be paid out to the Holder to the extent that the vesting conditions are subsequently satisfied and the share of Restricted Stock vests.

7.3 *Restrictions.* All shares of Restricted Stock (including any shares received by Holders thereof with respect to shares of Restricted Stock as a result of stock dividends, stock splits or any other form of recapitalization) shall, in the terms of the applicable Program or in each individual Award Agreement, be subject to such restrictions and vesting requirements as the Administrator shall provide. Such restrictions may include, without limitation, restrictions concerning voting rights and transferability and such restrictions may lapse separately or in combination at such times and pursuant to such circumstances or based on such criteria as selected by the Administrator, including, without limitation, criteria based on the Holder's duration of employment, directorship or consultancy with the Company, the Performance Criteria, Company performance, individual performance or other criteria selected by the Administrator. By action taken after the Restricted Stock is issued, the Administrator may, on such terms and conditions as it may determine to be appropriate, accelerate the vesting of such Restricted Stock by removing any or all of the restrictions imposed by the terms of the applicable Program or Award Agreement. Restricted Stock may not be sold or encumbered until all restrictions are terminated or expire.

7.4 *Repurchase or Forfeiture of Restricted Stock.* Except as otherwise determined by the Administrator at the time of the grant of the Award or thereafter, if no price was paid by the Holder for the Restricted Stock, upon a Termination of Service during the applicable restriction period, the Holder's rights in invested Restricted Stock then subject to restrictions shall lapse, and such Restricted Stock shall be surrendered to the Company and cancelled without consideration. If a price was paid by the Holder for the Restricted Stock, upon a Termination of Service during the applicable restriction period, the Company shall have the right to repurchase from the Holder the unvested Restricted Stock then subject to restrictions at a cash price per share equal to the price paid by the Holder for such Restricted Stock or such other amount as may be specified in the applicable Program or Award Agreement. Notwithstanding the foregoing, the Administrator, in its sole discretion, may provide that upon certain events, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service or any other event, the Holder's rights in unvested Restricted Stock shall not lapse, such Restricted Stock shall vest and, if applicable, the Company shall not have a right of repurchase.

7.5 *Certificates for Restricted Stock.* Restricted Stock granted pursuant to the Plan may be evidenced in such manner as the Administrator shall determine. Certificates or book entries evidencing shares of Restricted Stock shall include an appropriate legend referring to the terms, conditions, and restrictions applicable to such Restricted Stock. The Company, in its sole discretion, may (a) retain physical possession of any stock certificate evidencing shares of Restricted Stock until the restrictions thereon shall have lapsed and/or (b) require that the stock certificates evidencing shares of Restricted Stock be held in custody by a designated escrow agent (which may but need not be the Company) until the restrictions thereon shall have lapsed, and that the Holder deliver a stock power, endorsed in blank, relating to such Restricted Stock.

7.6 *Section 83(b) Election.* If a Holder makes an election under Section 83(b) of the Code to be taxed with respect to the Restricted Stock as of the date of transfer of the Restricted Stock rather than as of the date or dates upon which the Holder would otherwise be taxable under Section 83(a) of the Code, the Holder shall be required to deliver a copy of such election to the Company promptly after filing such election with the Internal Revenue Service along with proof of the timely filing thereof with the Internal Revenue Service.

ARTICLE 8.

AWARD OF RESTRICTED STOCK UNITS

8.1 *Grant of Restricted Stock Units.* The Administrator is authorized to grant Awards of Restricted Stock Units to any Eligible Individual selected by the Administrator in such amounts and subject to such terms and conditions as determined by the Administrator.

8.2 *Term.* Except as otherwise provided herein, the term of a Restricted Stock Unit award shall be set by the Administrator in its sole discretion.

8.3 *Purchase Price.* The Administrator shall specify the purchase price, if any, to be paid by the Holder to the Company with respect to any Restricted Stock Unit award; *provided, however*, that value of the consideration shall not be less than the par value of a Share, unless otherwise permitted by Applicable Law.

8.4 *Vesting of Restricted Stock Units.* At the time of grant, the Administrator shall specify the date or dates on which the Restricted Stock Units shall become fully vested and nonforfeitable, and may specify such conditions to vesting as it deems appropriate, including, without limitation, vesting based upon the Holder's duration of service to the Company or any Subsidiary, one or more Performance Criteria, Company performance, individual performance or other specific criteria, in each case on a specified date or dates or over any period or periods, as determined by the Administrator.

8.5 *Maturity and Payment.* At the time of grant, the Administrator shall specify the maturity date applicable to each grant of Restricted Stock Units, which shall be no earlier than the vesting date or dates of the Award and may be determined at the election of the Holder (if permitted by the applicable Award Agreement); *provided* that, except as otherwise determined by the Administrator, set forth in any applicable Award Agreement, and subject to compliance with Section 409A of the Code, in no event shall the maturity date relating to each Restricted Stock Unit occur following the later of (a) the 15th day of the third month following the end of calendar year in which the applicable portion of the Restricted Stock Unit vests; or (b) the 15th day of the third month following the end of the Company's fiscal year in which the applicable portion of the Restricted Stock Unit vests. On the maturity date, the Company shall, subject to Section 11.4(e), transfer to the Holder one unrestricted, fully transferable Share for each Restricted Stock Unit scheduled to be paid out on such date and not previously forfeited, or in the sole discretion of the Administrator, an amount in cash equal to the Fair Market Value of such Shares on the maturity date or a combination of cash and Common Stock as determined by the Administrator.

8.6 *Payment upon Termination of Service.* An Award of Restricted Stock Units shall only be payable while the Holder is an Employee, a Consultant or a member of the Board, as applicable; *provided, however,* that the Administrator, in its sole discretion, may provide (in an Award Agreement or otherwise) that a Restricted Stock Unit award may be paid subsequent to a Termination of Service in certain events, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service.

8.7 *No Rights as a Stockholder.* Unless otherwise determined by the Administrator, a Holder of Restricted Stock Units shall possess no incidents of ownership with respect to the Shares represented by such Restricted Stock Units, unless and until such Shares are transferred to the Holder pursuant to the terms of this Plan and the Award Agreement.

ARTICLE 9.

AWARD OF PERFORMANCE AWARDS, DIVIDEND EQUIVALENTS AND STOCK PAYMENTS

9.1 *Performance Awards.*

(a) The Administrator is authorized to grant Performance Awards, including Awards of Performance Stock Units, to any Eligible Individual. The value of Performance Awards, including Performance Stock Units, may be linked to any one or more of the Performance Criteria or other specific criteria determined by the Administrator, in each case on a specified date or dates or over any period or periods and in such amounts as may be determined by the Administrator. Performance Awards, including Performance Stock Unit awards may be paid in cash, Shares, or a combination of cash and Shares, as determined by the Administrator.

(b) Without limiting Section 9.1(a), the Administrator may grant Performance Awards to any Eligible Individual in the form of a cash bonus payable upon the attainment of objective Performance Goals, or such other criteria, whether or not objective, which are established by the Administrator, in each case on a specified date or dates or over any period or periods determined by the Administrator.

9.2 *Dividend Equivalents.* Dividend Equivalents may be granted by the Administrator based on dividends declared on the Common Stock, to be credited as of dividend payment dates with respect to dividends with record dates that occur during the period between the date an Award is granted to a Holder and the date such Award vests, is exercised, is distributed or expires, as determined by the Administrator. Such Dividend Equivalents shall be converted to cash or additional Shares by such formula and at such time and subject to such restrictions and limitations as may be determined by the Administrator. In addition, Dividend Equivalents with respect to an Award (including, without

limitation, an Option or Stock Appreciation Right) that are based on dividends paid prior to the vesting of such Award shall only be paid out to the Holder to the extent that the vesting conditions are subsequently satisfied and the Award vests.

9.3 *Stock Payments.* The Administrator is authorized to make Stock Payments to any Eligible Individual. The number or value of Shares of any Stock Payment shall be determined by the Administrator and may be based upon one or more Performance Criteria or any other specific criteria, including service to the Company or any Subsidiary, determined by the Administrator. Shares underlying a Stock Payment which is subject to a vesting schedule or other conditions or criteria set by the Administrator shall not be issued until those conditions have been satisfied. Unless otherwise provided by the Administrator, a Holder of a Stock Payment shall have no rights as a Company stockholder with respect to such Stock Payment until such time as the Stock Payment has vested and the Shares underlying the Award have been issued to the Holder. Stock Payments may, but are not required to, be made in lieu of base salary, bonus, fees or other cash compensation otherwise payable to such Eligible Individual.

9.4 *Term.* The term of a Performance Award, Dividend Equivalent award and/or Stock Payment award shall be established by the Administrator in its sole discretion.

9.5 *Purchase Price.* The Administrator may establish the purchase price of a Performance Award or Shares distributed as a Stock Payment award; *provided, however*, that value of the consideration shall not be less than the par value of a Share, unless otherwise permitted by Applicable Law.

9.6 *Termination of Service.* A Performance Award, Stock Payment award, and/or Dividend Equivalent award is distributable only while the Holder is an Employee, Director or Consultant, as applicable. The Administrator, however, in its sole discretion, may provide that the Performance Award, Dividend Equivalent award, and/or Stock Payment award may be distributed subsequent to a Termination of Service in certain events, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service.

ARTICLE 10.

AWARD OF STOCK APPRECIATION RIGHTS

10.1 *Grant of Stock Appreciation Rights.*

(a) The Administrator is authorized to grant Stock Appreciation Rights to Eligible Individuals from time to time, in its sole discretion, on such terms and conditions as it may determine, which shall not be inconsistent with the Plan.

(b) A Stock Appreciation Right shall entitle the Holder (or other person entitled to exercise the Stock Appreciation Right pursuant to the Plan) to exercise all or a specified portion of the Stock Appreciation Right (to the extent then exercisable pursuant to its terms) and to receive from the Company an amount determined by multiplying the difference obtained by subtracting the exercise price per share of the Stock Appreciation Right from the Fair Market Value on the date of exercise of the Stock Appreciation Right by the number of Shares with respect to which the Stock Appreciation Right shall have been exercised, subject to any limitations the Administrator may impose. Except as described in (c) below, the exercise price per Share subject to each Stock Appreciation Right shall be set by the Administrator, but shall not be less than 100% of the Fair Market Value on the date the Stock Appreciation Right is granted.

(c) Notwithstanding the foregoing provisions of Section 10.1(b) to the contrary, in the case of a Stock Appreciation Right that is a Substitute Award, the price per share of the Shares subject to such Stock Appreciation Right may be less than 100% of the Fair Market Value per share on the date of grant; *provided* that the excess of: (i) the aggregate Fair Market Value (as of the date such

Substitute Award is granted) of the Shares subject to the Substitute Award, over (ii) the aggregate exercise price thereof does not exceed the excess of: (x) the aggregate fair market value (as of the time immediately preceding the transaction giving rise to the Substitute Award, such fair market value to be determined by the Administrator) of the shares of the predecessor entity that were subject to the grant assumed or substituted for by the Company, over (y) the aggregate exercise price of such shares.

10.2 *Stock Appreciation Right Vesting.*

(a) The period during which the right to exercise, in whole or in part, a Stock Appreciation Right vests in the Holder shall be set by the Administrator and the Administrator may determine that a Stock Appreciation Right may not be exercised in whole or in part for a specified period after it is granted. Such vesting may be based on service with the Company or any Subsidiary, any of the Performance Criteria, or any other criteria selected by the Administrator. Except as limited by the Plan, at any time after grant of a Stock Appreciation Right, the Administrator, in its sole discretion and subject to whatever terms and conditions it selects, may accelerate the period during which a Stock Appreciation Right vests.

(b) No portion of a Stock Appreciation Right which is unexercisable at a Holder's Termination of Service shall thereafter become exercisable, except as may be otherwise provided by the Administrator in the applicable Program, the Award Agreement evidencing the grant of a Stock Appreciation Right, or by action of the Administrator following the grant of the Stock Appreciation Right.

10.3 *Manner of Exercise.* All or a portion of an exercisable Stock Appreciation Right shall be deemed exercised upon delivery of all of the following to the Secretary of the Company, the stock administrator of the Company, or such other person or entity designated by the Administrator, or his, her or its office, as applicable:

(a) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Stock Appreciation Right, or a portion thereof, is exercised. The notice shall be signed by the Holder or other person then entitled to exercise the Stock Appreciation Right or such portion of the Stock Appreciation Right;

(b) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with Applicable Law. The Administrator, in its sole discretion, may also take whatever additional actions it deems appropriate to effect such compliance, including, without limitation, placing legends on share certificates and issuing stop-transfer notices to agents and registrars;

(c) In the event that the Stock Appreciation Right shall be exercised pursuant to this Section 10.3 by any person or persons other than the Holder, appropriate proof of the right of such person or persons to exercise the Stock Appreciation Right, as determined in the sole discretion of the Administrator; and

(d) Full payment of the exercise price and applicable withholding taxes to the stock administrator of the Company for the Shares with respect to which the Stock Appreciation Right, or portion thereof, is exercised, in a manner permitted by 11.1 and 11.2.

10.4 *Stock Appreciation Right Term.* The term of each Stock Appreciation Right (the “*Stock Appreciation Right Term*”) shall be set by the Administrator in its sole discretion; *provided, however*, that the Stock Appreciation Right Term shall not be more than ten (10) years from the date the Stock Appreciation Right is granted. The Administrator shall determine the time period, including the time period following a Termination of Service, during which the Holder has the right to exercise the vested Stock Appreciation Rights, which time period may not extend beyond the last day of the Stock Appreciation Right Term applicable to such Stock Appreciation Right. Except as limited by the requirements of Section 409A of the Code and regulations and rulings thereunder or the first sentence of this Section 10.4, the Administrator may extend the Stock Appreciation Right Term of any outstanding Stock Appreciation Right, and may extend the time period during which vested Stock Appreciation Rights may be exercised, in connection with any Termination of Service of the Holder, and may amend, subject to Section 13.1, any other term or condition of such Stock Appreciation Right relating to such a Termination of Service.

10.5 *Payment.* Payment of the amounts payable with respect to Stock Appreciation Rights pursuant to this Article 10 shall be in cash, Shares (based on its Fair Market Value as of the date the Stock Appreciation Right is exercised), or a combination of both, as determined by the Administrator.

ARTICLE 11.

ADDITIONAL TERMS OF AWARDS

11.1 *Payment.* The Administrator shall determine the methods by which payments by any Holder with respect to any Awards granted under the Plan shall be made, including, without limitation: (a) cash or check, (b) Shares (including, in the case of payment of the exercise price of an Award, Shares issuable pursuant to the exercise of the Award) or Shares held for such period of time as may be required by the Administrator in order to avoid adverse accounting consequences, in each case, having a Fair Market Value on the date of delivery equal to the aggregate payments required, (c) delivery of a written or electronic notice that the Holder has placed a market sell order with a broker acceptable to the Company with respect to Shares then issuable upon exercise or vesting of an Award, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate payments required; *provided* that payment of such proceeds is then made to the Company upon settlement of such sale, or (d) any other form of legal consideration acceptable to the Administrator in its sole discretion. The Administrator shall also determine the methods by which Shares shall be delivered or deemed to be delivered to Holders. Notwithstanding any other provision of the Plan to the contrary, no Holder who is a Director or an “executive officer” of the Company within the meaning of Section 13(k) of the Exchange Act shall be permitted to make payment with respect to any Awards granted under the Plan, or continue any extension of credit with respect to such payment, with a loan from the Company or a loan arranged by the Company in violation of Section 13(k) of the Exchange Act.

11.2 *Tax Withholding.* The Company or any Subsidiary shall have the authority and the right to deduct or withhold, or require a Holder to remit to the Company, an amount sufficient to satisfy federal, state, local and foreign taxes (including the Holder’s FICA, employment tax or other social security contribution obligation) required by law to be withheld with respect to any taxable event concerning a Holder arising as a result of the Plan. The Administrator, in its sole discretion and in satisfaction of the foregoing requirement, may withhold, or allow a Holder to elect to have the Company withhold, Shares otherwise issuable under an Award (or allow the surrender of Shares). The number of Shares which may be so withheld or surrendered shall be limited to the number of Shares which have a fair market value on the date of withholding or repurchase equal to the aggregate amount of such liabilities based on the minimum statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income. The Administrator shall determine the fair market value of the Shares, consistent with applicable provisions

of the Code, for tax withholding obligations due in connection with a broker-assisted cashless Option or Stock Appreciation Right exercise involving the sale of Shares to pay the Option or Stock Appreciation Right exercise price or any tax withholding obligation.

11.3 *Transferability of Awards.*

(a) Except as otherwise provided in Section 11.3(b) and 11.3(c):

(i) No Award under the Plan may be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution or, subject to the consent of the Administrator, pursuant to a DRO, unless and until such Award has been exercised, or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed;

(ii) No Award or interest or right therein shall be liable for the debts, contracts or engagements of the Holder or the Holder's successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, hypothecation, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect, except to the extent that such disposition is permitted by Section 11.3(a)(i); and

(iii) During the lifetime of the Holder, only the Holder may exercise an Award (or any portion thereof) granted to such Holder under the Plan, unless it has been disposed of pursuant to a DRO; after the death of the Holder, any exercisable portion of an Award may, prior to the time when such portion becomes unexercisable under the Plan or the applicable Program or Award Agreement, be exercised by the Holder's personal representative or by any person empowered to do so under the deceased Holder's will or under the then-applicable laws of descent and distribution.

(b) Notwithstanding Section 11.3(a), the Administrator, in its sole discretion, may determine to permit a Holder to transfer an Award other than an Incentive Stock Option to any one or more Permitted Transferees, subject to the following terms and conditions: (i) an Award transferred to a Permitted Transferee shall not be assignable or transferable by the Permitted Transferee other than by will or the laws of descent and distribution or pursuant to a DRO; (ii) an Award transferred to a Permitted Transferee shall continue to be subject to all the terms and conditions of the Award as applicable to the original Holder (other than the ability to further transfer the Award); and (iii) the Holder and the Permitted Transferee shall execute any and all documents requested by the Administrator, including, without limitation documents to (A) confirm the status of the transferee as a Permitted Transferee, (B) satisfy any requirements for an exemption for the transfer under Applicable Law and (C) evidence the transfer.

(c) Notwithstanding Section 11.3(a), a Holder may, in the manner determined by the Administrator, designate a beneficiary to exercise the rights of the Holder and to receive any distribution with respect to any Award upon the Holder's death. A beneficiary, legal guardian, legal representative, or other person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and any Program or Award Agreement applicable to the Holder, except to the extent the Plan, the Program and the Award Agreement otherwise provide, and to any additional restrictions deemed necessary or appropriate by the Administrator. If the Holder is married or a domestic partner in a domestic partnership qualified under Applicable Law and resides in a community property state, a designation of a person other than the Holder's spouse or domestic partner, as applicable, as the Holder's beneficiary with respect to more than 50% of the Holder's interest in the Award shall not be effective without the prior written or electronic consent

of the Holder's spouse or domestic partner. If no beneficiary has been designated or survives the Holder, payment shall be made to the person entitled thereto pursuant to the Holder's will or the laws of descent and distribution. Subject to the foregoing, a beneficiary designation may be changed or revoked by a Holder at any time; *provided* that the change or revocation is filed with the Administrator prior to the Holder's death.

11.4 *Conditions to Issuance of Shares.*

(a) Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates or make any book entries evidencing Shares pursuant to the exercise of any Award, unless and until the Board or the Committee has determined, with advice of counsel, that the issuance of such Shares is in compliance with Applicable Law and the Shares are covered by an effective registration statement or applicable exemption from registration. In addition to the terms and conditions provided herein, the Board or the Committee may require that a Holder make such reasonable covenants, agreements and representations as the Board or the Committee, in its sole discretion, deems advisable in order to comply with Applicable Law.

(b) All share certificates delivered pursuant to the Plan and all Shares issued pursuant to book entry procedures are subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with Applicable Law. The Administrator may place legends on any share certificate or book entry to reference restrictions applicable to the Shares.

(c) The Administrator shall have the right to require any Holder to comply with any timing or other restrictions with respect to the settlement, distribution or exercise of any Award, including a window-period limitation, as may be imposed in the sole discretion of the Administrator.

(d) No fractional Shares shall be issued and the Administrator, in its sole discretion, shall determine whether cash shall be given in lieu of fractional Shares or whether such fractional Shares shall be eliminated by rounding down.

(e) Notwithstanding any other provision of the Plan, unless otherwise determined by the Administrator or required by Applicable Law, the Company shall not deliver to any Holder certificates evidencing Shares issued in connection with any Award and instead such Shares shall be recorded in the books of the Company (or, as applicable, its transfer agent or stock plan administrator).

11.5 *Forfeiture and Claw-Back Provisions.* Pursuant to its general authority to determine the terms and conditions applicable to Awards under the Plan, the Administrator shall have the right to provide, in an Award Agreement or otherwise, or to require a Holder to agree by separate written or electronic instrument, that: (i) any proceeds, gains or other economic benefit actually or constructively received by the Holder upon any receipt or exercise of the Award, or upon the receipt or resale of any Shares underlying the Award, shall be paid to the Company, and (ii) the Award shall terminate and any unexercised portion of the Award (whether or not vested) shall be forfeited, if (x) a Termination of Service occurs prior to a specified date, or within a specified time period following receipt or exercise of the Award, or (y) the Holder at any time, or during a specified time period, engages in any activity in competition with the Company, or which is inimical, contrary or harmful to the interests of the Company, as further defined by the Administrator or (z) the Holder incurs a Termination of Service for "cause" (as such term is defined in the sole discretion of the Administrator, or as set forth in a written agreement relating to such Award between the Company and the Holder). All Awards (including any proceeds, gains or other economic benefit actually or constructively received by the Holder upon any receipt or exercise of any Award or upon the receipt or resale of any Shares underlying the Award) shall be subject to the provisions of any claw-back policy implemented by the Company, including, without limitation, any claw-back policy adopted to comply with the requirements of Applicable Law,

including without limitation the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder, to the extent set forth in such claw-back policy and/or in the applicable Award Agreement.

11.6 *Prohibition on Repricing.* Subject to Section 13.2, the Administrator shall not, without the approval of the stockholders of the Company, (i) authorize the amendment of any outstanding Option or Stock Appreciation Right to reduce its price per share, or (ii) cancel any Option or Stock Appreciation Right in exchange for cash or another Award when the Option or Stock Appreciation Right price per share exceeds the Fair Market Value of the underlying Shares. Subject to Section 13.2, the Administrator shall have the authority, without the approval of the stockholders of the Company, to amend any outstanding Award to increase the price per share or to cancel and replace an Award with the grant of an Award having a price per share that is greater than or equal to the price per share of the original Award. Furthermore, for purposes of this Section 11.6, except in connection with a corporate transaction involving the Company (including, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination or exchange of shares), the terms of outstanding Awards may not be amended to reduce the exercise price per share of outstanding Options or Stock Appreciation Rights or cancel outstanding Options or Stock Appreciation Rights in exchange for cash, other Awards or Options or Stock Appreciation Rights with an exercise price per share that is less than the exercise price per share of the original Options or Stock Appreciation Rights without the approval of the stockholders of the Company.

11.7 *Minimum Vesting Provision.* Notwithstanding any other provision of the Plan to the contrary, Awards (other than cash-settled Awards) made to Employees, Directors or Consultants shall not vest earlier than the date that is one year following the date the Award is approved by the Administrator; provided, however, that, notwithstanding the foregoing, Awards that result in the issuance of an aggregate of up to 5% of the Shares available pursuant to Section 3.1 may be granted to any one or more Employees, Directors or Consultants without respect to such minimum vesting provision.

ARTICLE 12.

ADMINISTRATION

12.1 *Administrator.* The Committee (or another committee or a subcommittee of the Board assuming the functions of the Committee under the Plan) shall administer the Plan (except as otherwise permitted herein). To the extent necessary to comply with Rule 16b-3 of the Exchange Act, the Committee (or another committee or subcommittee of the Board assuming the functions of the Committee under the Plan) shall take all action with respect to such Awards, and the individuals taking such action shall consist solely of two or more Non-Employee Directors appointed by and holding office at the pleasure of the Board, each of whom is intended to qualify as a “non-employee director” as defined by Rule 16b-3 of the Exchange Act or any successor rule and, to the extent necessary with respect to Awards made under the Plan prior to November 2, 2017 that are intended to qualify as “performance-based compensation” as described in Section 162(m)(4)(C) of the Code prior to its repeal or are otherwise not subject to the deduction limitation of Section 162(m) of the Code because they were granted to an individual who was not considered a “covered employee” under Section 162(m) (such Awards, “*Section 162(m) Awards*”), an “outside director” for purposes of Section 162(m) of the Code. Additionally, to the extent required by Applicable Law, each of the individuals constituting the Committee (or another committee or subcommittee of the Board assuming the functions of the Committee under the Plan) shall be an “independent director” under the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded. Notwithstanding the foregoing, any action taken by the Committee shall be valid and effective, whether or not members of the Committee at the time of such action are later determined not to have

satisfied the requirements for membership set forth in this Section 12.1 or otherwise provided in any charter of the Committee. Except as may otherwise be provided in any charter of the Committee, appointment of Committee members shall be effective upon acceptance of appointment. Committee members may resign at any time by delivering written or electronic notice to the Board. Vacancies in the Committee may only be filled by the Board. Notwithstanding the foregoing, (a) the full Board, acting by a majority of its members in office, shall conduct the general administration of the Plan with respect to Awards granted to Non-Employee Directors and, with respect to such Awards, the terms “Administrator” and “Committee” as used in the Plan shall be deemed to refer to the Board and (b) the Board or Committee may delegate its authority hereunder to the extent permitted by Section 12.6.

12.2 Duties and Powers of Committee. It shall be the duty of the Committee to conduct the general administration of the Plan in accordance with its provisions. The Committee shall have the power to interpret the Plan, the Program and the Award Agreement, and to adopt such rules for the administration, interpretation and application of the Plan as are not inconsistent therewith, to interpret, amend or revoke any such rules and to amend any Program or Award Agreement; *provided* that the rights or obligations of the Holder of the Award that is the subject of any such Program or Award Agreement are not affected adversely by such amendment, unless the consent of the Holder is obtained or such amendment is otherwise permitted under Section 11.5 or Section 13.10. Any such grant or award under the Plan need not be the same with respect to each Holder. Any such interpretations and rules with respect to Incentive Stock Options shall be consistent with the provisions of Section 422 of the Code. In its sole discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Committee under the Plan except with respect to matters which under Rule 16b-3 under the Exchange Act or any successor rule, or the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded are required to be determined in the sole discretion of the Committee.

12.3 Action by the Committee. Unless otherwise established by the Board or in any charter of the Committee, a majority of the Committee shall constitute a quorum and the acts of a majority of the members present at any meeting at which a quorum is present, and acts approved in writing by all members of the Committee in lieu of a meeting, shall be deemed the acts of the Committee. Each member of the Committee is entitled to, in good faith, rely or act upon any report or other information furnished to that member by any officer or other employee of the Company or any Subsidiary, the Company’s independent certified public accountants, or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan.

12.4 Authority of Administrator. Subject to the Company’s Bylaws, the Committee’s Charter and any specific designation in the Plan, the Administrator has the exclusive power, authority and sole discretion to:

- (a) Designate Eligible Individuals to receive Awards;
- (b) Determine the type or types of Awards to be granted to each Eligible Individual;
- (c) Determine the number of Awards to be granted and the number of Shares to which an Award will relate;
- (d) Determine the terms and conditions of any Award granted pursuant to the Plan, including, but not limited to, the exercise price, grant price, purchase price, any Performance Criteria, any restrictions or limitations on the Award, any schedule for vesting, lapse of forfeiture restrictions or restrictions on the exercisability of an Award, and accelerations or waivers thereof, and any provisions related to non-competition and recapture of gain on an Award, based in each case on such considerations as the Administrator in its sole discretion determines;

(e) Determine whether, to what extent, and pursuant to what circumstances an Award may be settled in, or the exercise price of an Award may be paid in cash, Shares, other Awards, or other property, or an Award may be canceled, forfeited, or surrendered;

(f) Prescribe the form of each Award Agreement, which need not be identical for each Holder;

(g) Decide all other matters that must be determined in connection with an Award;

(h) Establish, adopt, or revise any rules and regulations as it may deem necessary or advisable to administer the Plan;

(i) Interpret the terms of, and any matter arising pursuant to, the Plan, any Program or any Award Agreement;

(j) Make all other decisions and determinations that may be required pursuant to the Plan or as the Administrator deems necessary or advisable to administer the Plan; and

(k) Accelerate wholly or partially the vesting or lapse of restrictions of any Award or portion thereof at any time after the grant of an Award, subject to whatever terms and conditions it selects and Section 13.2.

12.5 Decisions Binding. The Administrator's interpretation of the Plan, any Awards granted pursuant to the Plan, any Program, any Award Agreement and all decisions and determinations by the Administrator with respect to the Plan are final, binding and conclusive on all parties.

12.6 Delegation of Authority. To the extent permitted by Applicable Law, the Board or Committee may from time to time delegate to a committee of one or more members of the Board or one or more officers of the Company the authority to grant or amend Awards or to take other administrative actions pursuant to this Article 12; *provided, however,* that in no event shall an officer of the Company be delegated the authority to grant awards to, or amend awards held by, the following individuals: (a) individuals who are subject to Section 16 of the Exchange Act, (b) Covered Employees or (c) officers of the Company (or Directors) to whom authority to grant or amend Awards has been delegated hereunder; *provided, further,* that any delegation of administrative authority shall only be permitted to the extent it is permissible under Applicable Law. Any delegation hereunder shall be subject to the restrictions and limits that the Board or Committee specifies at the time of such delegation, and the Board may at any time rescind the authority so delegated or appoint a new delegatee. At all times, the delegatee appointed under this Section 12.6 shall serve in such capacity at the pleasure of the Board and the Committee.

12.7 Provisions Applicable to Section 162(m) Awards. Notwithstanding any other provision of the Plan or any Award, each Section 162(m) Award shall be subject to any additional limitations as the Committee determines necessary for such Section 162(m) Award to qualify as "performance-based compensation" as described in Section 162(m)(4)(C) of the Code prior to its repeal or to otherwise be exempt from Section 162(m) pursuant to the transition relief rules in the Tax Cuts and Jobs Act of 2017, and to the extent any of the provisions of the Plan or any Award would cause any Section 162(m) Awards to fail to so qualify or to otherwise be so exempt, any such provisions shall not apply to such Awards to the extent necessary to ensure the continued qualification or exemption of such Awards. To the extent permitted by Applicable Law, the Plan and any such Awards shall be deemed amended to the extent necessary to conform to such requirements.

ARTICLE 13.

MISCELLANEOUS PROVISIONS

13.1 *Amendment, Suspension or Termination of the Plan.* Except as otherwise provided in this Section 13.1, the Plan may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Board or the Committee. However, without approval of the Company's stockholders given within twelve (12) months before or after the action by the Administrator, no action of the Administrator may, except as provided in Section 13.2, (a) increase the limits imposed in Section 3.1 on the maximum number of Shares which may be issued under the Plan, (b) reduce the price per share of any outstanding Option or Stock Appreciation Right granted under the Plan or take any action prohibited under Section 11.6, or (c) cancel any Option or Stock Appreciation Right in exchange for cash or another Award when the Option or Stock Appreciation Right price per share exceeds the Fair Market Value of the underlying Shares. Except as provided in Section 11.5 and Section 13.10, no amendment, suspension or termination of the Plan shall, without the consent of the Holder, impair any rights or obligations under any Award theretofore granted or awarded, unless the Award itself otherwise expressly so provides. No Awards may be granted or awarded during any period of suspension or after termination of the Plan, and notwithstanding anything herein to the contrary, in no event may any Award be granted under the Plan after March 13, 2029 (the "*Expiration Date*"). Any Awards that are outstanding on the Expiration Date shall remain in force according to the terms of the Plan and the applicable Award Agreement.

13.2 *Changes in Common Stock or Assets of the Company, Acquisition or Liquidation of the Company and Other Corporate Events.*

(a) In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the Shares of the Company's stock or the share price of the Company's stock other than an Equity Restructuring, the Administrator may make equitable adjustments, if any, to reflect such change with respect to: (i) the aggregate number and kind of Shares that may be issued under the Plan (including, but not limited to, adjustments of the limitations in 3.1 and 3.3 on the maximum number and kind of Shares which may be issued under the Plan, and adjustments of the Award Limit, and adjustments of the manner in which shares subject to Full Value Awards will be counted); (ii) the number and kind of Shares (or other securities or property) subject to outstanding Awards; (iii) the terms and conditions of any outstanding Awards (including, without limitation, any applicable performance targets or criteria with respect thereto); and (iv) the grant or exercise price per share for any outstanding Awards under the Plan.

(b) In the event of any transaction or event described in Section 13.2(a) or any unusual or nonrecurring transactions or events affecting the Company, any Subsidiary of the Company, or the financial statements of the Company or any Subsidiary, or of changes in Applicable Law or accounting principles, the Administrator, in its sole discretion, and on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event and either automatically or upon the Holder's request, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to any Award under the Plan, to facilitate such transactions or events or to give effect to such changes in laws, regulations or principles:

(i) To provide for either (A) termination of any such Award in exchange for an amount of cash, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Holder's rights (and, for the avoidance of doubt, if as of the date

of the occurrence of the transaction or event described in this Section 13.2 the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Holder's rights, then such Award may be terminated by the Company without payment) or (B) the replacement of such Award with other rights or property selected by the Administrator, in its sole discretion, having an aggregate value not exceeding the amount that could have been attained upon the exercise of such Award or realization of the Holder's rights had such Award been currently exercisable or payable or fully vested;

(ii) To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar options, rights or awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices;

(iii) To make adjustments in the number and type of Shares of the Company's stock (or other securities or property) subject to outstanding Awards, and in the number and kind of outstanding Restricted Stock and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards and Awards which may be granted in the future;

(iv) To provide that such Award shall be exercisable or payable or fully vested with respect to all Shares covered thereby, notwithstanding anything to the contrary in the Plan or the applicable Program or Award Agreement; and

(v) To provide that the Award cannot vest, be exercised or become payable after such event.

(c) In connection with the occurrence of any Equity Restructuring, and notwithstanding anything to the contrary in Section 13.2(a) and 13.2(b):

(i) The number and type of securities subject to each outstanding Award and/or the exercise price or grant price thereof, if applicable, shall be equitably adjusted; and/or

(ii) The Administrator shall make such equitable adjustments, if any, as the Administrator, in its sole discretion, may deem appropriate to reflect such Equity Restructuring with respect to the aggregate number and kind of Shares that may be issued under the Plan (including, but not limited to, adjustments of the limitations in 3.1 and 3.3 on the maximum number and kind of Shares which may be issued under the Plan, adjustments of the Award Limit, and adjustments of the manner in which Shares subject to Full Value Awards will be counted). The adjustments provided under this Section 13.2(c) shall be nondiscretionary and shall be final and binding on the affected Holder and the Company.

(d) Notwithstanding any other provision of the Plan, in the event of a Change in Control, each outstanding Award shall continue in effect or be assumed or an equivalent Award substituted by the successor corporation or a parent or subsidiary of the successor corporation.

(e) In the event that the successor corporation in a Change in Control refuses to assume or substitute for the Award, the Administrator may cause any or all of such Awards to become fully exercisable immediately prior to the consummation of such transaction and all forfeiture restrictions on any or all of such Awards to lapse. If an Award is exercisable in lieu of assumption or substitution in the event of a Change in Control, the Administrator shall notify the Holder that the Award shall be fully exercisable for a period of fifteen (15) days from the date of such notice, contingent upon the occurrence of the Change in Control, and the Award shall terminate upon the expiration of such period.

(f) For the purposes of this Section 13.2, an Award shall be considered assumed if, following the Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, or other securities or property) received in the Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); *provided, however*, that if such consideration received in the Change in Control was not solely common stock of the successor corporation or its parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Award, for each Share subject to an Award, to be solely common stock of the successor corporation or its parent equal in fair market value to the per-share consideration received by holders of Common Stock in the Change in Control.

(g) The Administrator, in its sole discretion, may include such further provisions and limitations in any Award, agreement or certificate, as it may deem equitable and in the best interests of the Company that are not inconsistent with the provisions of the Plan.

(h) No adjustment or action described in this Section 13.2 or in any other provision of the Plan shall be authorized to the extent that such adjustment or action would cause the Plan to violate Section 422(b)(1) of the Code. Furthermore, no such adjustment or action shall be authorized to the extent such adjustment or action would result in short-swing profits liability under Section 16 or violate the exemptive conditions of Rule 16b-3 unless the Administrator determines that the Award is not to comply with such exemptive conditions.

(i) The existence of the Plan, the Program, the Award Agreement and the Awards granted hereunder shall not affect or restrict in any way the right or power of the Company or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, any merger or consolidation of the Company, any issue of stock or of options, warrants or rights to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

(j) No action shall be taken under this Section 13.2 which shall cause an Award to fail to be exempt from or comply with Section 409A of the Code or the Treasury Regulations thereunder.

(k) In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the Shares or the share price of the Common Stock including any Equity Restructuring, for reasons of administrative convenience, the Administrator, in its sole discretion, may refuse to permit the exercise of any Award during a period of up to thirty (30) days prior to the consummation of any such transaction.

13.3 Approval of Plan by Stockholders. The Plan shall be submitted for the approval of the Company's stockholders within twelve (12) months after the date of the Board's initial adoption of the Plan. Awards may be granted or awarded prior to such stockholder approval; *provided* that such Awards shall not be exercisable, shall not vest and the restrictions thereon shall not lapse and no Shares shall be issued pursuant thereto prior to the time when the Plan is approved by the stockholders; and *provided, further*, that if such approval has not been obtained at the end of said twelve (12) month period, all Awards previously granted or awarded under the Plan shall thereupon be canceled and become null and void.

13.4 *No Stockholders Rights.* Except as otherwise provided herein, a Holder shall have none of the rights of a stockholder with respect to Shares covered by any Award until the Holder becomes the record owner of such Shares.

13.5 *Paperless Administration.* In the event that the Company establishes, for itself or using the services of a third party, an automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, then the paperless documentation, granting or exercise of Awards by a Holder may be permitted through the use of such an automated system.

13.6 *Effect of Plan upon Other Compensation Plans.* The adoption of the Plan shall not affect any other compensation or incentive plans in effect for the Company or any Subsidiary. Nothing in the Plan shall be construed to limit the right of the Company or any Subsidiary: (a) to establish any other forms of incentives or compensation for Employees, Directors or Consultants of the Company or any Subsidiary, or (b) to grant or assume options or other rights or awards otherwise than under the Plan in connection with any proper corporate purpose including without limitation, the grant or assumption of options in connection with the acquisition by purchase, lease, merger, consolidation or otherwise, of the business, stock or assets of any corporation, partnership, limited liability company, firm or association.

13.7 *Compliance with Laws.* The Plan, the granting and vesting of Awards under the Plan and the issuance and delivery of Shares and the payment of money under the Plan or under Awards granted or awarded hereunder are subject to compliance with all Applicable Law (including but not limited to state, federal and foreign securities law and margin requirements), and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Company, be necessary or advisable in connection therewith. Any securities delivered under the Plan shall be subject to such restrictions, and the person acquiring such securities shall, if requested by the Company, provide such assurances and representations to the Company as the Company may deem necessary or desirable to assure compliance with all Applicable Law. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to Applicable Law.

13.8 *Titles and Headings, References to Sections of the Code or Exchange Act.* The titles and headings of the Sections in the Plan are for convenience of reference only and, in the event of any conflict, the text of the Plan, rather than such titles or headings, shall control. References to sections of the Code or the Exchange Act shall include any amendment or successor thereto.

13.9 *Governing Law.* The Plan and any agreements hereunder shall be administered, interpreted and enforced under the internal laws of the State of Delaware without regard to conflicts of laws thereof or of any other jurisdiction.

13.10 *Section 409A.* To the extent that the Administrator determines that any Award granted under the Plan is subject to Section 409A of the Code, the Program pursuant to which such Award is granted and the Award Agreement evidencing such Award shall incorporate the terms and conditions required by Section 409A of the Code. To the extent applicable, the Plan, the Program and any Award Agreements shall be interpreted in accordance with Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date. Notwithstanding any provision of the Plan to the contrary, in the event that following the Effective Date the Administrator determines that any Award may be subject to Section 409A of the Code and related Department of Treasury guidance (including such Department of Treasury guidance as may be issued after the Effective Date), the Administrator may adopt such amendments to the Plan and the applicable Program and Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Administrator

determines are necessary or appropriate to (a) exempt the Award from Section 409A of the Code and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (b) comply with the requirements of Section 409A of the Code and related Department of Treasury guidance and thereby avoid the application of any penalty taxes under such Section.

13.11 *No Rights to Awards.* No Eligible Individual or other person shall have any claim to be granted any Award pursuant to the Plan, and neither the Company nor the Administrator is obligated to treat Eligible Individuals, Holders or any other persons uniformly.

13.12 *Unfunded Status of Awards.* The Plan is intended to be an “unfunded” plan for incentive compensation. With respect to any payments not yet made to a Holder pursuant to an Award, nothing contained in the Plan or any Program or Award Agreement shall give the Holder any rights that are greater than those of a general creditor of the Company or any Subsidiary.

13.13 *Indemnification.* To the extent allowable pursuant to Applicable Law, each member of the Committee or of the Board shall be indemnified and held harmless by the Company from any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by such member in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action or failure to act pursuant to the Plan and against and from any and all amounts paid by him or her in satisfaction of judgment in such action, suit, or proceeding against him or her; *provided* he or she gives the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled pursuant to the Company’s Certificate of Incorporation or Bylaws, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

13.14 *Relationship to other Benefits.* No payment pursuant to the Plan shall be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of the Company or any Subsidiary except to the extent otherwise expressly provided in writing in such other plan or an agreement thereunder.

13.15 *Expenses.* The expenses of administering the Plan shall be borne by the Company and its Subsidiaries.

* * * * *