

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

SCHEDULE 14A
(RULE 14a-101)
INFORMATION REQUIRED IN
PROXY STATEMENT
SCHEDULE 14A INFORMATION
Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934
(Amendment No.)

Filed by the Registrant Filed by a Party other than the Registrant
Check the appropriate box:

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

MANKIND CORPORATION
(Name of Registrant as Specified in its Charter)

N/A

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:

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 - (1) Amount previously paid:

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

 - (3) Filing Party:

 - (4) Date Filed:

MANKIND CORPORATION
30930 Russell Ranch Road, Suite 300
Westlake Village, California 91362
(818) 661-5000

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held On Thursday, May 21, 2020

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of MannKind Corporation, a Delaware corporation (“MannKind”). Due to public health concerns arising from the COVID-19 pandemic, the meeting will be held live via the Internet on Thursday, May 21, 2020 at 10:00 a.m. U.S. Pacific Time. To attend, please visit www.virtualshareholdermeeting.com/MNKD2020. You will not be able to attend the Annual Meeting in person. The Annual Meeting will consider the following matters:

1. To elect the eight nominees named herein as directors to serve for the ensuing year and until their successors are elected;
2. To approve an amendment to MannKind Corporation’s Amended and Restated Certificate of Incorporation to increase the authorized number of shares of common stock from 280,000,000 shares to 400,000,000 shares (the “Authorized Shares Increase Proposal”);
3. To approve an amendment to the MannKind Corporation 2018 Equity Incentive Plan to increase the number of shares authorized for issuance under the 2018 Equity Incentive Plan (the “2018 Plan”) by 12,500,000 shares;
4. To approve, on an advisory basis, the compensation of the named executive officers of MannKind, as disclosed in MannKind’s proxy statement for the Annual Meeting;
5. To ratify the selection by the Audit Committee of the Board of Directors of Deloitte & Touche LLP as the independent registered public accounting firm of MannKind for its fiscal year ending December 31, 2020; and
6. To transact such other business as may properly come before the meeting or any adjournment or postponement thereof.

These items of business are more fully described in the proxy statement accompanying this notice.

The record date for the Annual Meeting is March 22, 2020. Only stockholders of record on that date may vote at the meeting or any adjournment thereof.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders of MannKind Corporation to be Held on May 21, 2020 at 10:00 a.m. U.S. Pacific Time.

The proxy statement and annual report to stockholders are available at www.mannkindcorp.com.

By Order of the Board of Directors



David B. Thomson
Executive Vice President, General Counsel and Secretary

Westlake Village, California
April , 2020

You are cordially invited to attend the meeting via the Internet. Whether or not you expect to attend the meeting, please vote by proxy pursuant to the instructions set forth herein as promptly as possible in order to ensure your representation at the meeting. Even if you have voted by proxy, you may still vote live if you attend the meeting via Internet. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

MANKIND CORPORATION
30930 Russell Ranch Road, Suite 300
Westlake Village, California 91362
(818) 661-5000

PROXY STATEMENT
FOR THE 2020 ANNUAL MEETING OF STOCKHOLDERS

To be held on May 21, 2020

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Why did I receive a notice regarding the availability of proxy materials on the internet?

Pursuant to rules adopted by the Securities and Exchange Commission (the “SEC”), we have elected to provide access to our proxy materials over the internet. Accordingly, we have sent you a Notice of Internet Availability of Proxy Materials (the “Notice”) because the Board of Directors (sometimes referred to as the “Board”) of MannKind Corporation (sometimes referred to as, “we,” “us,” the “Company” or “MannKind”) is soliciting your proxy to vote at the 2020 Annual Meeting of Stockholders (the “Annual Meeting”), including any adjournments or postponements of the Annual Meeting. This year’s Annual Meeting will be held entirely via the Internet due to the emerging public health impact of the COVID-19 pandemic and related government guidelines, and to support the health and well-being of our management, directors and stockholders. You are invited to attend the annual meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the meeting via the Internet to vote your shares. All stockholders will have the ability to access the proxy materials on the website referred to in the Notice or request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the internet or to request a printed copy may be found in the Notice.

The Notice is expected to be first mailed to our stockholders of record entitled to vote at the Annual Meeting on or about April 10, 2020.

Will I receive any other proxy materials by mail?

We may send you a proxy card, along with a second Notice, ten days after mailing the first Notice.

Who can vote at the Annual Meeting?

Only stockholders of record at the close of business on March 22, 2020 (the “record date”) will be entitled to vote at the Annual Meeting. On this record date, there were 213,128,580 shares of common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If on the record date your shares were registered directly in your name with MannKind’s transfer agent, Computershare, then you are a stockholder of record. As a stockholder of record, you may vote live at the meeting or vote by proxy. Whether or not you plan to attend the Annual Meeting, we urge you to vote by proxy pursuant to the instructions set forth below to ensure your vote is counted.

Beneficial Owner: Shares Registered in the Name of a Broker or Bank

If on the record date your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer, or other similar organization, then you are the beneficial owner of shares held in “street name” and Notice is being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker or other agent on how to vote the shares in your account. You are also invited to attend the Annual Meeting. However, because you are not the stockholder of record, you may not vote your shares live at the Annual Meeting unless you request and obtain a valid proxy from your broker or other agent.

What am I voting on?

Management is presenting five proposals for stockholder vote.

Proposal 1. Election of Eight Directors

The first proposal to be voted on is the election of our eight nominees named herein as directors for a one-year term. The Board has nominated these eight people as directors. You may find information about these nominees, as well as information about MannKind’s Board of Directors and its committees, director compensation and other related matters beginning on page 6.

You may vote “For” all the nominees, “Withhold” your votes as to all nominees or “Withhold” your votes as to specific nominees.

The Board of Directors unanimously recommends a vote FOR all the director nominees named herein.

Proposal 2. Amendment to MannKind’s Amended and Restated Certificate of Incorporation

The second proposal to be voted on is to approve an amendment to MannKind’s Amended and Restated Certificate of Incorporation to increase the authorized number of shares of our common stock from 280,000,000 shares to 400,000,000 shares. You may find information about this proposal beginning on page 15.

You may vote “For” or “Against” the proposal or “Abstain” from voting on the proposal.

The Board of Directors unanimously recommends a vote FOR Proposal 2.

Proposal 3. Amendment to MannKind’s 2018 Equity Incentive Plan

The third proposal to be voted on is to approve an amendment to MannKind’s 2018 Equity Incentive Plan to increase the number of shares of common stock authorized for issuance thereunder by 12,500,000 shares. You may find information about this proposal beginning on page 16.

You may vote “For” or “Against” the proposal or “Abstain” from voting on the proposal.

The Board of Directors unanimously recommends a vote FOR Proposal 3.

Proposal 4. Advisory Vote on Executive Compensation

The fourth proposal to be voted on is an advisory vote by the stockholders of MannKind regarding the compensation of the Company’s named executive officers as described in this proxy statement, including the disclosures under “Compensation Discussion and Analysis,” the compensation tables and the narrative discussion following the compensation tables. The Company is seeking the stockholders’ approval, on an advisory basis, of the compensation of the named executive officers. You may find information about this proposal beginning on page 29.

You may vote “For” or “Against” the proposal or “Abstain” from voting on the proposal.

The Board of Directors unanimously recommends a vote FOR Proposal 4.

Proposal 5. Ratification of Selection by the Audit Committee of the Board of Directors of Deloitte & Touche LLP as the Company’s Independent Registered Public Accounting Firm for the Fiscal Year Ending December 31, 2020

The fifth proposal to be voted on is to ratify the selection by the Audit Committee of the Board of Directors of Deloitte & Touche LLP as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2020. It is expected that representatives of Deloitte & Touche LLP will attend the Annual Meeting and be available to make a statement or respond to appropriate questions. You may find information about this proposal beginning on page 31.

You may vote “For” or “Against” the proposal or “Abstain” from voting on the proposal.

The Board of Directors unanimously recommends a vote FOR Proposal 5.

What if another matter is properly brought before the Annual Meeting?

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

How do I vote?

The procedures for voting are fairly simple:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote live at the Annual Meeting, vote by proxy over the telephone, vote by proxy through the internet or vote by proxy using a proxy card that you may request or that we may elect to deliver at a later time. Whether or not you plan to attend the Annual Meeting via the Internet, we urge you to vote by proxy to ensure your vote is counted. You may still attend the Annual Meeting via the Internet and vote live if you have already voted by proxy.

- To vote live, attend the Annual Meeting via the Internet and follow the instructions for voting. To attend the meeting, please visit www.virtualshareholdermeeting.com/MNKD2020.
- To vote using the proxy card, simply complete, sign and date the proxy card that may be delivered and return it promptly in the envelope provided. Your signed proxy card must be received by 11:59 PM U.S. Eastern time on May 20, 2020 to be counted.
- To vote over the telephone, dial toll-free (800) 690-6903 using a touch-tone phone and follow the recorded instructions. You will be asked to provide the control number from the Notice. Your vote must be received by 11:59 PM U.S. Eastern time on May 20, 2020 to be counted.
- To vote through the internet, go to <http://www.proxyvote.com> to complete an electronic proxy card. You will be asked to provide the control number from the Notice. Your vote must be received by 11:59 PM U.S. Eastern time on May 20, 2020 to be counted.

We provide internet proxy voting to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a Notice containing voting instructions from that organization rather than from MannKind. Simply follow the voting instructions in the Notice to ensure that your vote is counted. To vote live at the Annual Meeting, follow the instructions after logging into the meeting website.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you owned as of the record date.

What if I return a proxy card or otherwise vote by proxy but do not make specific choices?

If you voted by proxy without marking any voting selections, your shares will be voted "For" the election of each of the eight nominees for director listed in Proposal 1, "For" the approval of the Authorized Shares Increase in Proposal 2, "For" the approval of the amendment to the 2018 Plan as provided in Proposal 3, "For" the advisory vote on executive compensation as provided in Proposal 4, and "For" the ratification of the selection of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020 as provided in Proposal 5. If any other matter is properly presented at the Annual Meeting, your proxy (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We will also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

What does it mean if I receive more than one Notice?

If you receive more than one Notice, your shares are registered in more than one name or are registered in different accounts. Please follow the voting instructions with respect to **each** Notice to ensure that all of your shares are voted. Similarly, if you are a stockholder of record and you receive more than one Notice, your shares are registered in more than one name. Please follow the voting instructions with respect to **each** Notice to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

Yes. You can revoke your proxy at any time before the final vote at the Annual Meeting. If you are a stockholder of record, you may revoke your proxy in any one of the following ways:

- You may send a written notice that you are revoking your proxy to MannKind's Corporate Secretary at 30930 Russell Ranch Road, Suite 300, Westlake Village, California 91362.
- You may grant another proxy by telephone or through the internet.
- You may submit another properly completed proxy card with a later date.
- You may attend the Annual Meeting via the Internet and vote live. Simply attending the Annual Meeting will not, by itself, revoke your proxy.

Your most current proxy, whether submitted by proxy card, telephone or internet, is the one that is counted.

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

How are votes counted?

Votes will be counted by the inspector of election appointed for the meeting, who will separately count, with respect to the proposal to elect directors, votes "For," "Withhold" and broker non-votes; and with respect to other proposals, "For" and "Against" votes, abstentions and, if applicable, broker non-votes. Abstentions will be counted towards the vote total for each proposal, except with respect to the election of directors, and will have the same effect as "Against" votes. Broker non-votes will have no effect and will not be counted towards the vote total for any proposal except Proposal 2. For Proposal 2, broker non-votes will have the same effect as "Against" votes.

What are "broker non-votes"?

Broker non-votes occur when a beneficial owner of shares held in street name does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed "non-routine." Generally, if shares are held in street name (shares are held by your broker as your nominee), the beneficial owner of the shares is entitled to give voting instructions to the broker or nominee holding the shares. If you do not give instructions to your broker, your broker can vote your shares with respect to matters that are considered to be "routine," but not with respect to "non-routine" matters. Under the rules and interpretations of the New York Stock Exchange, "non-routine" matters are generally those involving a matter that may substantially affect the rights or privileges of stockholders, such as mergers or stockholder proposals, election of directors (even if not contested) and executive compensation, including the stockholder advisory votes on executive compensation. Proposals 1, 3 and 4 regarding the election of directors, amendment to the 2018 Plan, and the advisory vote regarding executive compensation, respectively, are non-routine matters. Proposal 2 to approve the Authorized Shares Increase Proposal and Proposal 5 to ratify Deloitte & Touche LLP as our independent registered public accounting firm are routine matters.

How many votes are needed to approve each proposal?

For the election of directors, the eight nominees receiving the most "For" votes (among votes properly cast at the meeting or by proxy) will be elected. Only votes "For" or "Withhold" will affect the outcome. Only the eight nominees named herein have been properly nominated for election as directors.

Proposals 3, 4 and 5 regarding, respectively, approval of the amendment to the 2018 Plan, approval on an advisory basis of the compensation of the Company's named executive officers and ratification of the Audit

Committee's selection of the independent registered public accounting firm, must receive a "For" vote from the majority of shares present and entitled to vote either at the meeting or by proxy in order to be approved. Proposal 2, the Authorized Shares Increase Proposal, must receive a "For" vote from the majority of shares of common stock outstanding on the record date in order to be approved. If you "Abstain" from voting on any of these proposals, it will have the same effect as an "Against" vote. Broker non-votes will have no effect any proposal except Proposal 2, for which broker non-votes will have the same effect as "Against" votes.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid Annual Meeting. A quorum will be present if at least a majority of the outstanding shares entitled to vote are represented by stockholders present at the Annual Meeting or by proxy. On the record date, there were 213,128,580 shares outstanding and entitled to vote. Thus, 106,564,291 shares must be represented by stockholders present at the Annual Meeting or by proxy to have a quorum.

Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote live at the Annual Meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the chairman of the Annual Meeting or a majority of the votes present at the Annual Meeting may adjourn the meeting to another date.

How can I find out the results of the voting at the Annual Meeting?

Preliminary voting results will be announced at the Annual Meeting. Final voting results will be published in a current report on Form 8-K that we expect to file no later than four business days following the date of the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K on or before such date, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

When are stockholder proposals due for next year's annual meeting?

To be considered for inclusion in MannKind's proxy material for next year's annual meeting, your proposal must be submitted in writing by December 11, 2020 to Attn: Corporate Secretary, MannKind Corporation, 30930 Russell Ranch Road, Suite 300, Westlake Village, California 91362. If you wish to submit a proposal that is not to be included in MannKind's proxy materials or nominate a director, you must do so not later than February 20, 2021 and not earlier than January 21, 2021. You are also advised to review the Company's Amended and Restated Bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations.

PROPOSAL 1

ELECTION OF DIRECTORS

MannKind's Board of Directors currently consists of nine directors. There are eight nominees for director this year, all of whom were nominated by our Board of Directors, consisting of our incumbent directors other than Mr. Henry Nordhoff, who we did not nominate for reelection at the annual meeting as a result of his preference to retire from the Board at the end of his current term. The authorized size of the board will be reduced to eight directors upon the date of the Annual Meeting. Each director to be elected will hold office until the next annual meeting of stockholders and until his or her successor is elected, or until the director's earlier death, resignation or removal. All nominees listed below are currently our directors and were previously elected by our stockholders at the 2019 Annual Meeting of Stockholders, except for Mr. Anthony Hooper who was appointed to the Board in January 2020 and Ms. Jennifer Grancio, who was appointed to the Board in March 2020. It is our policy that directors are invited and expected to attend annual meetings. All of the then-standing directors attended the 2019 Annual Meeting of Stockholders.

Directors are elected by a plurality of the votes properly cast at the annual meeting or by proxy. The eight nominees receiving the highest number of affirmative votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the eight nominees named below. If any nominee becomes unavailable for election as a result of an unexpected occurrence, your shares may be voted for the election of a substitute nominee proposed by our Nominating and Corporate Governance Committee. Each person nominated for election has agreed to serve if elected. Our management has no reason to believe that any nominee will be unable to serve.

NOMINEES

The following is a brief biography of each nominee for director and a discussion of the specific experience, qualifications, attributes or skills of each nominee that led our Board of Directors to conclude that each nominee should serve as a member of the Board.

<u>Name</u>	<u>Age</u>	<u>Position Held With the Company</u>
Kent Kresa ⁽¹⁾⁽²⁾	82	Chairman of the Board of Directors
Michael E. Castagna, Pharm.D.	43	Chief Executive Officer and Director
Ronald J. Consiglio ⁽²⁾⁽³⁾	76	Director
Michael A. Friedman, M.D. ⁽¹⁾⁽²⁾	76	Director
Jennifer Grancio ⁽³⁾	48	Director
Anthony Hooper ⁽³⁾	65	Director
Christine Mundkur ⁽³⁾	51	Director
James S. Shannon, M.D., MRCP (UK) ⁽¹⁾	63	Director

(1) Member of the Compensation Committee.

(2) Member of the Nominating and Corporate Governance Committee.

(3) Member of the Audit Committee.

Kent Kresa has been a member of our Board of Directors since June 2004 and has served as Chairman of the Board since February 2017. From November 2011 until his appointment as our Chairman, Mr. Kresa served on our Board of Directors as our lead independent director. Mr. Kresa is Chairman Emeritus of Northrop Grumman Corporation, a defense company and from September 1990 until October 2003, he was also its Chairman. He also served as Chief Executive Officer of Northrop Grumman Corporation from January 1990 until March 2003 and as its President from 1987 until September 2001. From 2003 to August 2010, Mr. Kresa served as a director of General Motors Company (or its predecessor). Mr. Kresa has also served on the boards of Fluor Corporation and Avery Dennison Corporation. Mr. Kresa has been a member of the Caltech Board of Trustees since 1994 and also serves on the boards of several non-profit organizations. As a graduate of Massachusetts Institute of Technology, he received a B.S. in 1959, an M.S. in 1961, and an E.A.A. in 1966, all in aeronautics and astronautics. The Board believes that Mr. Kresa's business experience, including his experience as a director and executive officer of Northrop Grumman, and his service on other public company boards, combined with his business acumen and judgment provide our Board with valuable operational expertise and leadership and qualifies him to serve on our Board of Directors.

Michael E. Castagna, Pharm.D. has served as our Chief Executive Officer and as one of our directors since May 2017. Mr. Castagna also served as a Corporate Vice President, Chief Commercial Officer from March 2016 until May 2017. From November 2012 until he joined us, Mr. Castagna was at Amgen, Inc., where he initially served as Vice President, Global Lifecycle Management and was most recently Vice President, Global Commercial Lead for Amgen's Biosimilar Business Unit. From 2010 to 2012, he was Executive Director, Immunology, at Bristol-Myers Squibb Company ("BMS"). Before BMS, Mr. Castagna served as Vice President and Head, Biopharmaceuticals, North America, at Sandoz, a division of Novartis. Beginning in 1977, he held positions with commercial or medical affairs responsibilities at EMD (Merck) Serono, Pharmasset and DuPont Pharmaceuticals. He received his pharmacy degree from the University of the Sciences-Philadelphia College of Pharmacy, a Pharm.D. from Massachusetts College of Pharmacy & Sciences and an MBA from The Wharton School of Business at the University of Pennsylvania. The Board believes that Mr. Castagna's knowledge and extensive experience with commercial pharmaceutical companies, combined with his business acumen and judgment, provide our Board with valuable operational expertise and leadership and qualifies him to serve on our Board of Directors.

Ronald J. Consiglio has been one of our directors since October 2003. Since 1999, Mr. Consiglio has been the managing director of Synergy Trading, a securities-trading partnership. From 1999 to 2001, Mr. Consiglio was Executive Vice President and Chief Financial Officer of Trading Edge, Inc., a national automated bond-trading firm. From January 1993 to 1998 Mr. Consiglio served as Chief Executive Officer of Angeles Mortgage Investment Trust, a publicly traded Real Estate Investment Trust. His prior experience includes serving as Senior Vice President and Chief Financial Officer of Cantor Fitzgerald & Co. and as a member of its board of directors. Mr. Consiglio has served as a member of the board of trustees for the Metropolitan West Funds since 2003. Mr. Consiglio is a certified public accountant and holds a bachelor's degree in accounting from California State University at Northridge. The Board believes that Mr. Consiglio's knowledge and understanding of accounting and finance, his experience as a board member and executive officer at financial services firms, combined with his business acumen and judgment provide our Board with valuable accounting, financial and operational expertise and leadership and qualifies him to serve on our Board of Directors.

Michael A. Friedman, M.D. has been one of our directors since December 2003. In 2014, Dr. Friedman completed a decade of service as the President and Chief Executive Officer of the City of Hope National Medical Center. Previously, from September 2001 until April 2003, Dr. Friedman held the position of Senior Vice President of Research and Development, Medical and Public Policy, for Pharmacia Corporation and, from July 1999 until September 2001, was a senior vice president of Searle, a subsidiary of Monsanto Company. From 1995 until June 1999, Dr. Friedman served as Deputy Commissioner for Operations for the Food and Drug Administration, and was Acting Commissioner and Lead Deputy Commissioner from 1997 to 1998. He served on the board of Celgene Corporation from February 2011 to December 2019 and on the board of Smith & Nephew plc from April 2013 to April 2019. Dr. Friedman received a Bachelor of Arts degree, magna cum laude, from Tulane University, New Orleans, Louisiana, and a doctorate in medicine from the University of Texas, Southwestern Medical School. The Board believes Dr. Friedman's business experience, including his experience as an executive officer at biopharmaceutical companies and a leading clinical and research center specializing in cancer and diabetes, and his service at the Food and Drug Administration, combined with his business acumen and judgment provide our Board with valuable scientific and operational expertise and leadership and qualifies him to serve on our Board of Directors.

Jennifer Grancio has been one of our directors since March 2020. In November 2018, Ms. Grancio founded Grancio Capital, where she consults with company leaders on the best ways to expand market reach and how to build effective teams to do so. From 1999 to 2018, she served as a founder and executive with BlackRock's iShares business, where she spearheaded the distribution of iShares in the United States and Europe and acted as the Global Head of Marketing and Partnerships for BlackRock's index business. Prior to BlackRock, she was a senior associate with PricewaterhouseCoopers, a management consulting firm. Ms. Grancio serves as a board member for Ethic Inc., a sustainable investing firm, and for Harvest Savings & Wealth Technologies, Inc. She is also on the advisory boards of Say Technologies LLC and m+ funds (from Alaia Capital, LLC). Ms. Grancio earned a bachelor's degree in economics and international relations from Stanford University, and an MBA degree in strategy and finance from Columbia Business School. The Board believes that Ms. Grancio's business acumen and judgment provide our Board with valuable operational expertise and leadership and qualifies her to serve on our Board of Directors.

Anthony Hooper has been one of our directors since January 2020. He is also a director of BeiGene, Ltd., a publicly traded biotechnology company. Mr. Hooper served as executive vice president of Global Commercial Operations for Amgen Inc. from Oct 2011 until August 2018. Prior to joining Amgen, Mr. Hooper spent more than 15 years at Bristol-Myers Squibb. His last role there was senior vice president, Global Commercial Operations and president of the company's pharmaceutical business in the Americas, Japan and intercontinental regions. Previously, he was assistant vice president of Global Marketing for Wyeth Laboratories and led the international marketing group for Lederle International. Mr. Hooper earned law and MBA degrees from the University of South Africa. The Board believes that Mr. Hooper's business experience and his extensive experience in drug commercialization, combined with his business acumen and judgment provide our Board with valuable operational expertise and leadership and qualifies him to serve on our Board of Directors

Christine Mundkur has been one of our directors since November 2018. Ms. Mundkur most recently served as Chief Executive Officer and non-voting Chairman of the Board of Directors for Impopharma Inc., a developer of complex formulations focused on inhaled pharmaceutical products, from February 2013 to February 2017. While at Impopharma, Ms. Mundkur led the transition of the company from a successful clinical research organization into a generic pharmaceutical inhalation development company. Her work included the internal development and filing of Abbreviated New Drug Applications for spray and inhalation products. Ms. Mundkur also previously served as President and Chief Executive Officer of the U.S. Division and Head of Commercial Operations for North America for Sandoz, Inc. from January 2009 to April 2010. She served as Chief Executive Officer of Barr Laboratories, Inc. from April 2008 to December 2008, where she started her career as quality and regulatory counsel in 1993. In addition, Ms. Mundkur has served as a strategic consultant advising several clients on global pharmaceutical business strategies. Ms. Mundkur holds a J.D. from the St. Louis University School of Law and received her B.S. degree in chemistry from St. Louis University. The Board believes that Ms. Mundkur's business experience, including her experience as chairman of the board and chief executive officer at a pharmaceutical company developing inhaled drugs, combined with her business acumen and judgment provide our Board with valuable operational expertise and leadership and qualifies her to serve on our Board of Directors.

James S. Shannon, M.D., MRCP (UK) rejoined our board in May 2015 after previously serving as a director from February 2010 until April 2012. From May 2012 until his retirement in April 2015, Dr. Shannon was the Chief Medical Officer of GlaxoSmithKline. He formerly held the position of Global Head of Pharma Development at Novartis AG, based in Basel, Switzerland from 2005 until 2008. After joining Sandoz in 1994 as Head of Drug Regulatory Affairs, Dr. Shannon led the Integration Office for R&D overseeing the creation of the Novartis R&D groups from those of Ciba-Geigy Ltd and Sandoz. Following the merger he was appointed Head of the Cardiovascular Strategic Team and subsequently became Global Head of Project Management before being appointed Global Head of Clinical Development and Medical Affairs in 1999, a position that he held until 2005 when he was appointed to Head Pharma Development. Between 2008 and joining GSK, Dr. Shannon served on the boards of a number of companies, including Biotie, Circassia, Crucell and Endocyte. He also sat on the board of Cerimon Pharmaceuticals where he held the position of interim Chief Executive Officer and President from January 2009 until April 2010. He first entered the pharmaceutical industry in 1987 joining Sterling Winthrop Inc., working initially in Europe and subsequently in the USA, where he held positions of increasing responsibility in the management of research and development ultimately serving as Senior Vice-President, Clinical Development. Dr. Shannon is trained in Medicine and Cardiology. He received his undergraduate and postgraduate degrees at Queen's University of Belfast and is a Member of the Royal College of Physicians (UK). The Board believes that Dr. Shannon's business experience and his extensive experience in drug development, combined with his business acumen and judgment provide our Board with valuable scientific and operational expertise and leadership and qualifies him to serve on our Board of Directors.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS
A VOTE FOR THE ELECTION OF ALL DIRECTOR NOMINEES NAMED ABOVE**

INDEPENDENCE OF THE BOARD OF DIRECTORS

As required under the Nasdaq Stock Market (“Nasdaq”) listing standards, a majority of the members of a listed company’s board of directors must qualify as “independent,” as affirmatively determined by the board of directors. Our Board of Directors consults with the Company’s counsel to ensure that the Board’s determinations are consistent with all relevant securities and other laws and regulations regarding the definition of “independent,” including those set forth in pertinent listing standards of Nasdaq, as in effect time to time.

Consistent with these considerations, after review of all relevant transactions or relationships between each director or any of his or her family members and the Company, its senior management and its independent auditors, the Board of Directors affirmatively has determined that all of the Company’s directors, other than Mr. Castagna, are independent within the meaning of the applicable Nasdaq listing standards. Mr. Castagna was determined not to be independent under applicable Nasdaq listing standards due to his position as an executive officer of our company. In making this determination, the Board found that none of the directors has a material or other disqualifying relationship with the Company.

INFORMATION REGARDING THE BOARD OF DIRECTORS AND ITS COMMITTEES

We are committed to maintaining the highest standards of business conduct and ethics. Our Board of Directors has adopted a Code of Business Conduct and Ethics and adheres to corporate governance guidelines to assure that the Board will have the necessary authority and practices in place to review and evaluate our business operations as needed and to make decisions that are independent of our management. The guidelines are also intended to align the interests of directors and management with those of our stockholders. The charters for various Board committees set forth the practices the Board will follow with respect to board composition and selection, board meetings and involvement of senior management, Chief Executive Officer performance evaluation and succession planning, and board committees and compensation. Our Board of Directors adopted these measures to, among other things, reflect changes to the Nasdaq listing standards and SEC rules adopted to implement provisions of the Sarbanes-Oxley Act of 2002, as amended. Our Code of Business Conduct and Ethics, as well as the charters for each committee of the Board, may be viewed on our website at www.mannkindcorp.com.

BOARD LEADERSHIP STRUCTURE

Our Board of Directors is currently chaired by Mr. Kresa. As a general policy, our Board of Directors believes that separation of the positions of Chairman and Chief Executive Officer reinforces the independence of the Board of Directors from management, creates an environment that encourages objective oversight of management’s performance and enhances the effectiveness of the Board of Directors as a whole. As such, Mr. Castagna serves as our Chief Executive Officer while Mr. Kresa serves as our Chairman of the Board of Directors but is not an officer. We expect and intend the positions of Chairman of the Board of Directors and Chief Executive Officer to continue to be held by separate individuals in the future. If in the future we conclude there is a compelling reason for the positions of Chairman of the Board and Chief Executive Officer to be occupied by the same individual, we would expect to appoint one of our other directors to the position of lead independent director to help reinforce the independence of the Board from management.

ROLE OF THE BOARD IN RISK OVERSIGHT

One of the key functions of our Board of Directors is informed oversight of the Company’s risk management process. The Board of Directors does not have a standing risk management committee, but rather administers this oversight function directly through the Board as a whole, as well as through various standing committees that address risks inherent in their respective areas of oversight. In particular, our Board is responsible for monitoring and assessing strategic risk exposure, including a determination of the nature and level of risk appropriate for the Company. Our Audit Committee has the responsibility to review our enterprise risk management system, to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The Audit Committee also reviews and receives regular briefings concerning information security and technology risks (including cybersecurity) from management,

including our Director of Information Technology. Our Compensation Committee reviews and approves individual and corporate performance goals, advises the Board regarding the adoption, modification, or termination of compensation plans and policies and assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking.

COMMITTEES OF THE BOARD OF DIRECTORS

The Board of Directors has three standing committees: an Audit Committee, a Compensation Committee, and a Nominating and Corporate Governance Committee. All three committees operate under written charters adopted by our Board, all of which are available on our website at www.mannkindcorp.com.

Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. The Board of Directors has determined that each member of each committee meets the applicable rules and regulations regarding “independence” and that each member is free of any relationship that would interfere with his or her individual exercise of independent judgment with regard to the Company. Below is a description of each committee.

Audit Committee

Our Audit Committee consists of Mr. Consiglio (chair), Ms. Grancio, Mr. Hooper, Ms. Mundkur and Mr. Nordhoff, each of whom is an independent member of our Board of Directors (as determined by our Board based on its annual review of the independence requirement of Audit Committee members provided in Rule 5605(c)(2)(A)(i) and (ii) of the Nasdaq listing standards). Mr. Nordhoff will retire from the Audit Committee concurrently with his retirement from the Board at the annual meeting. Our Audit Committee was established by the Board in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), to oversee the Company’s corporate accounting and financial reporting processes and audits of its financial statements. The functions of this committee include, among others:

- evaluating the independent registered public accounting firm’s qualifications, independence and performance;
- determining the engagement of the independent registered public accounting firm;
- approving the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services;
- monitoring the rotation of partners of the independent registered public accounting firm on our engagement team as required by law;
- reviewing our financial statements;
- reviewing our critical accounting policies and estimates;
- discussing with management and the independent registered public accounting firm the results of the annual audit and the review of our quarterly financial statements; and
- reviewing and evaluating, at least annually, the performance of the Audit Committee and its members, including compliance of the Audit Committee with its charter.

The Board of Directors has determined that Mr. Consiglio qualifies as an “audit committee financial expert,” as that term is defined in applicable SEC rules. In making such determinations, the Board of Directors made a qualitative assessment of Mr. Consiglio’s level of knowledge and experience based on a number of factors, including his formal education and experience. Both our independent registered public accounting firm and internal financial personnel regularly meet privately with our Audit Committee and have unrestricted access to this committee. Our Audit Committee charter can be found on our corporate website at www.mannkindcorp.com. The Audit Committee met eight times during 2019. The report of the Audit Committee is included herein on page 59.

Compensation Committee

Our Compensation Committee consists of Mr. Kresa (chair), Dr. Friedman and Dr. Shannon, each of whom is an independent member of our Board of Directors (as independence is currently defined in Rule 5605(a)(2) of the Nasdaq listing standards). The functions of this committee include, among others:

- reviewing and recommending policy relating to compensation and benefits of our officers and employees, including reviewing and approving corporate goals and objectives relevant to compensation of our Chief Executive Officer and other senior officers, evaluating the performance of these officers in light of those goals and objectives, and recommending compensation of these officers based on such evaluations;
- administering our benefit plans and the issuance of stock options and other awards under our stock plans;
- recommending the type and amount of compensation to be paid or awarded to members of our Board of Directors, including consulting, retainer, meeting, committee and committee chair fees and stock option grants or awards;
- reviewing and approving the terms of any employment agreements, severance arrangements, change-of-control protections and any other compensatory arrangements for our executive officers; and
- reviewing and evaluating, at least annually, the performance of the Compensation Committee and its members, including compliance of the Compensation Committee with its charter.

Typically, the Compensation Committee meets at least quarterly and with greater frequency if necessary. The Compensation Committee met four times during 2019.

The processes and procedures of the Compensation Committee with respect to executive compensation are described in greater detail in the “Compensation Discussion and Analysis” section of this proxy statement. Our Compensation Committee charter can be found on our corporate website at www.mannkindcorp.com. The report of the Compensation Committee is included herein on page 58.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee consists of Dr. Friedman (chair), Mr. Consiglio and Mr. Kresa, each of whom is an independent member of our Board of Directors (as independence is currently defined in Rule 5605(a)(2) of the Nasdaq listing standards). The functions of this committee include, among others:

- planning for succession with respect to the position of Chief Executive Officer and other senior officers;
- reviewing and recommending nominees for election as directors;
- assessing the performance of the Board of Directors and monitoring committee evaluations;
- suggesting, as appropriate, ad-hoc committees of the Board of Directors;
- developing guidelines for board composition; and
- reviewing and evaluating, at least annually, the performance of the Nominating and Corporate Governance Committee and its members, including compliance of the Nominating and Corporate Governance Committee with its charter.

Our Nominating and Corporate Governance Committee charter can be found on our corporate website at www.mannkindcorp.com. The Nominating and Corporate Governance Committee met three times during 2019.

CONSIDERATION OF DIRECTOR NOMINEES

Director Qualifications

The Nominating and Corporate Governance Committee believes that candidates for director should have certain minimum qualifications, including being able to read and understand basic financial statements, being over 21 years of age and having the highest personal integrity and ethics. The Nominating and Corporate Governance Committee also considers such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, having sufficient time to devote to the affairs of the Company, demonstrated excellence in his or her field, having the ability to exercise sound business judgment and having the commitment to rigorously represent the long-term interests of the Company's stockholders. However, the Nominating and Corporate Governance Committee retains the discretion to modify these qualifications from time to time.

Evaluating Nominees for Director

The Nominating and Corporate Governance Committee reviews candidates for director nominees in the context of the current composition of the Board of Directors, the operating requirements of the Company and the long-term interests of the Company's stockholders. In conducting this assessment, the Nominating and Corporate Governance Committee considers age, skills, and such other factors as it deems appropriate given the current needs of the Board of Directors and the Company, to maintain a balance of knowledge, experience and capability. In the case of incumbent directors, the Nominating and Corporate Governance Committee reviews such directors' overall service to the Company during their term, including the number of meetings attended, level of participation, quality of performance, and any other relationships and transactions that might impair such directors' independence. In the case of new director candidates, the Nominating and Corporate Governance Committee also determines whether the nominee would be independent for Nasdaq purposes, which determination is based upon applicable Nasdaq listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The Nominating and Corporate Governance Committee also considers diversity of gender, race and national origin, education, professional experience and differences in viewpoints and skills. The Nominating and Corporate Governance Committee does not have a formal policy with respect to diversity; however, the Board of Directors and the Nominating and Corporate Governance Committee believe that it is important that directors represent diverse viewpoints. Moreover, as a public company with its headquarters in California, the Company is also subject to the requirements of California's Senate Bill 826, which requires the Company to have no fewer than three female directors by the end of 2021.

The Nominating and Corporate Governance Committee uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. The Nominating and Corporate Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the Board. The Nominating and Corporate Governance Committee meets to discuss and consider such candidates' qualifications and then selects one or more nominees for recommendation to the Board by majority vote. To date, the Nominating and Corporate Governance Committee has not paid a fee to any third party to assist in the process of identifying or evaluating director candidates.

Stockholder Nominations

The Nominating and Corporate Governance Committee will consider director candidates recommended by stockholders. The Nominating and Corporate Governance Committee does not intend to alter the manner in which it evaluates candidates, including the minimum criteria set forth above, based on whether a candidate was recommended by a stockholder or not. Stockholders who wish to recommend individuals for consideration by the Nominating and Corporate Governance Committee to become nominees for election to the Board of Directors must do so by delivering at least 120 days prior to the anniversary date of the mailing of MannKind's proxy statement for its last annual meeting of stockholders a written recommendation to the Nominating and Corporate Governance Committee, c/o MannKind Corporation, 30930 Russell Ranch Road, Suite 300, Westlake Village, California 91362, Attn: Corporate Secretary. Each submission must set forth:

- the name and address of the MannKind stockholder on whose behalf the submission is made;
- the number of MannKind shares that are owned beneficially by such stockholder as of the date of the submission;

- the full name of the proposed candidate;
- a description of the proposed candidate's business experience for at least the previous five years;
- complete biographical information for the proposed candidate; and
- a description of the proposed candidate's qualifications as a director.

Each submission must be accompanied by the written consent of the proposed candidate to be named as a nominee and to serve as a director if elected.

To date, the Nominating and Corporate Governance Committee has not received a timely nomination of a candidate for election as a director at any annual meeting from a stockholder or group of stockholders holding more than 5% of our voting stock. In November 2019, a stockholder holding less than 0.1% of our voting stock recommended four candidates to be considered by the Nominating and Corporate Governance Committee, including the submitting stockholder himself. The Nominating and Corporate Governance Committee evaluated each of the submitted candidates using the criteria described above. The Committee's final recommendation to the full Board of Directors regarding nominees for election consisted of certain incumbent directors plus candidates that were introduced to the Company by a different source.

MEETINGS OF THE BOARD OF DIRECTORS

The Board of Directors met six times during the last fiscal year. Each director attended 75% or more of the aggregate number of the meetings of the Board and of the committees on which he or she served, held during the period for which he or she was a director or committee member.

EXECUTIVE SESSIONS

As required under applicable Nasdaq listing standards, our independent directors meet in regularly scheduled executive sessions at which only independent directors are present.

STOCKHOLDER COMMUNICATIONS WITH THE BOARD OF DIRECTORS

The Company's Board of Directors has adopted a formal process by which stockholders may communicate with the Board or any of its directors. Stockholders who wish to communicate with the Board or an individual director may send a written communication to the Board or such director c/o MannKind Corporation, 30930 Russell Ranch Road, Suite 300, Westlake Village, California 91362, Attn: Corporate Secretary. Communications also may be sent by e-mail to the following address: board@mannkindcorp.com. Each communication must set forth the name and address of the MannKind stockholder on whose behalf the communication is sent. Each communication will be screened by MannKind's Corporate Secretary to determine whether it is appropriate for presentation to the Board of Directors or such director. Examples of inappropriate communications include junk mail, mass mailings, product complaints, product inquiries, new product suggestions, resumes, job inquiries, surveys, business solicitations and advertisements, as well as unduly hostile, threatening, illegal, unsuitable, frivolous, patently offensive or otherwise inappropriate material. Communications determined by the Corporate Secretary to be appropriate for presentation to the Board of Directors or such director will be submitted to the Board of Directors or such director on a periodic basis.

The screening procedures have been approved by a majority of the independent directors of the Board. All communications directed to the Audit Committee in accordance with the Company's Code of Business Conduct and Ethics that relate to questionable accounting or auditing matters involving the Company will be promptly and directly forwarded to the Audit Committee.

CODE OF BUSINESS CONDUCT AND ETHICS

We have adopted a Code of Business Conduct and Ethics Policy that applies to our directors and employees (including our principal executive officer, principal financial officer, principal accounting officer and controller), and have posted the text of the policy on our website (www.mannkindcorp.com). In addition, we intend to promptly disclose on our website (i) the nature of any amendment to the policy that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and (ii) the nature of any waiver, including an implicit waiver, from a provision of the policy that is granted to one of these specified individuals, the name of such person who is granted the waiver and the date of the waiver.

HEDGING POLICY

The Company's Insider Trading Policy prohibits speculation based on fluctuations in the market. As a result, the following transactions are prohibited, whether or not the director, employee, officer or consultant is in possession of inside information:

- (a) purchases or sales of any derivative security of the Company, including without limitation, puts and calls;
- (b) purchases of the Company's stock on margin;
- (c) short sales of the Company's stock (i.e., where a person borrows shares of the Company's stock, sells them and then purchases stock at a later date to replace the borrowed stock);
- (d) loaning shares of the Company's stock through a brokerage or otherwise in order to facilitate the short sales of other persons;
- (e) writing, buying or selling options for the Company's stock;
- (f) pledging the Company's stock as security or collateral for a loan or any other obligation; and
- (g) to the extent not otherwise referenced above, any other hedging transaction involving the Company's stock or any derivative security of the Company, or any other inherently speculative transaction involving the Company's stock.

The prohibition on these transactions also applies to members of the households of directors, officers, employees and consultants of the Company or its subsidiaries.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

During the fiscal year ended December 31, 2019, Mr. Kresa and Drs. Friedman and Shannon served on our Compensation Committee. None of Mr. Kresa or Drs. Friedman or Shannon has ever been one of our officers or employees. During 2019, none of our executive officers served as a member of the Board of Directors or Compensation Committee of any other entity that had one or more executive officers who served on our Board of Directors or Compensation Committee.

PROPOSAL 2

APPROVAL OF INCREASE IN NUMBER OF AUTHORIZED SHARES OF COMMON STOCK

MannKind's Board of Directors is requesting stockholder approval of an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the Company's authorized number of shares of common stock from 280,000,000 shares to 400,000,000 shares. The form of amendment is attached to this proxy statement as Appendix A.

The additional common stock to be authorized by adoption of the amendment would have rights identical to the currently outstanding common stock of the Company. Although at present the Board of Directors has not approved any plans or proposals to issue any of the additional shares of the Company's common stock that would become authorized for issuance if this proposal is approved, the Board of Directors desires to have the shares available to provide additional flexibility to use the Company's common stock for financing and business purposes in the future. Adoption of the proposed amendment and issuance of the common stock would not affect the rights of the holders of currently outstanding common stock of the Company, except for, with respect to the issuance of additional shares, effects incidental to increasing the number of shares of the Company's common stock outstanding, such as dilution of the earnings per share and voting rights of current holders of common stock. If the amendment is adopted, it will become effective upon filing of a Certificate of Amendment of the Company's Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware.

As of March 16, 2020, in addition to the 213,128,580 shares of common stock outstanding, the Board had reserved 46,946,880 of the remaining authorized and unissued shares of the Company for issuances under the Company's equity compensation plans, upon the exercise of outstanding warrants, or upon the conversion of a convertible note held by the Mann Group LLC or Convertible Senior Subordinated Exchange Notes due 2024. Thus, as of March 16, 2020, the Company had only 19,924,540 unissued and unreserved authorized shares of common stock.

Unless further stockholder approval is required for a proposed issuance of additional shares by the rules of The Nasdaq Stock Market or other applicable laws or regulations, the additional shares may be used for various purposes without further stockholder approval. These purposes may include: raising capital; providing equity incentives to employees, officers and directors; establishing strategic relationships with other companies; expanding the Company's business or product lines through the acquisition of other businesses or products; and other purposes.

The additional shares of common stock that would become available for issuance if the proposal is adopted could also be used by the Company to oppose a hostile takeover attempt or to delay or prevent changes in control or management of the Company. For example, without further stockholder approval, the Board could strategically sell shares of common stock in a private transaction to purchasers who would oppose a takeover or favor the current Board. Although this proposal to increase the authorized common stock has been prompted by business and financial considerations and not by the threat of any hostile takeover attempt (nor is the Board currently aware of any such attempts directed at the Company), stockholders should be aware that approval of the proposal could facilitate future efforts by the Company to deter or prevent changes in control of the Company, including transactions in which the stockholders might otherwise receive a premium for their shares over then current market prices.

If this proposal is not approved by our stockholders, our financing alternatives will likely be limited by the lack of sufficient unissued and unreserved authorized shares of common stock, and stockholder value may be harmed by this limitation. In addition, our future success depends upon our ability to attract, retain and motivate highly-skilled scientific, commercial and managerial employees, and if this proposal is not approved by our stockholders, the lack of sufficient unissued and unreserved authorized shares of common stock to provide future equity incentive opportunities as the Board or the Compensation Committee thereof deems appropriate could adversely impact our ability to achieve these goals. In short, if our stockholders do not approve this proposal, we may not be able to access the capital markets, complete corporate collaborations, partnerships or other strategic transactions, attract, retain and motivate employees, and pursue other business opportunities integral to our growth and success.

The affirmative vote of the holders of a majority of the outstanding shares of our common stock on the record date will be required to approve the amendment of the Company's Amended and Restated Certificate of Incorporation to effect the authorized shares increase. As a result, abstentions and broker non-votes, if any, will have the same effect as "against" votes.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS
A VOTE "FOR" PROPOSAL 2.**

PROPOSAL 3

APPROVAL OF AN AMENDMENT TO THE 2018 EQUITY INCENTIVE PLAN

Overview

On May 16, 2018, our stockholders approved the MannKind Corporation 2018 Equity Incentive Plan (the “2018 Plan”).

Subject to stockholder approval, our Board approved an amendment to the 2018 Plan in March 2020 (the 2018 Plan, as amended, the “Amended 2018 Plan”) to increase the number of shares of common stock authorized for issuance under the 2018 Plan by 12,500,000 shares. The material terms of the Amended 2018 Plan are summarized below.

Our Board believes that the Amended 2018 Plan is an integral part of our long-term compensation policy and that the Amended 2018 Plan is necessary to continue providing the appropriate levels and types of equity compensation to our employees.

Why We are Asking our Stockholders to Approve the Amended 2018 Plan

Our Board believes it is in the best interests of the Company and our stockholders to approve the Amended 2018 Plan to increase the number of shares available for issuance by an additional 12,500,000 shares. If the Amended 2018 Plan is not approved, we will not have a sufficient amount of authorized shares for future issuance under the 2018 Plan. Prior to the Board approving the Amended 2018 Plan, 13,229,678 shares of common stock were authorized for issuance under the 2018 Plan. As of March 16, 2020, 4,551,476 shares of common stock remained available for future grant under the 2018 Plan. If this Proposal 3 is approved, an additional 12,500,000 shares will become available for future grant under the Amended 2018 Plan, which, as discussed below, will enable us to make anticipated stock option grants through the second quarter of 2023.

Why You Should Vote to Approve the Amended 2018 Plan

Equity Awards Are an Integral Component of Our Compensation Program

Equity awards have been historically and, we believe, will continue to be an integral component of our overall compensation program for our employees and directors. Approval of the increase to the 2018 Plan will allow us to continue to grant stock options and other equity awards at levels we determine to be appropriate in order to attract new employees and directors, retain our existing employees and to provide incentives for such persons to exert maximum efforts for the Company’s success and ultimately increase stockholder value. The 2018 Plan allows us to utilize a broad array of equity incentives with flexibility in designing such incentives, including traditional option grants, stock appreciation rights, restricted stock awards, restricted stock unit awards and performance stock awards.

Our Compensation Committee and Board carefully monitor our annual burn rate, total dilution and equity compensation expense in an effort to maximize stockholder value by granting only the appropriate number and type of equity awards necessary to attract, reward and retain key employees and directors. In addition, we use industry benchmarks to monitor and evaluate the reasonableness of the equity compensation we offer to our employees and prospective employees with the goal of attracting and retaining our most valuable human assets while staying within reasonable bounds of what the market requires in a competitive environment.

In considering the appropriate increase for the 2018 Plan, the Compensation Committee reviewed estimates from management that projected stock awards to cover approximately five million shares per year. As such, the increase of 12,500,000 shares was approved in order to provide a runway for future grants under the Amended 2018 Plan, which, absent a material company acquisition or similar event, is intended to last approximately three years, or through the 2023 annual meeting.

Key Plan Features

The 2018 Plan includes provisions that are designed to protect our stockholders' interests and to reflect corporate governance best practices including:

- *No single trigger accelerated vesting upon change in control.* The 2018 Plan does not provide for any automatic mandatory vesting of awards upon a change in control.
- *No liberal share counting or recycling of appreciation awards.* The following shares will not become available again for issuance under the 2018 Plan: (i) shares underlying stock options or stock appreciation rights that are reacquired or withheld (or not issued) by us to satisfy the exercise or purchase price of a stock award; (ii) shares underlying stock options or stock appreciation rights that are reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with a stock award; and (iii) any shares repurchased by us on the open market with the proceeds of the exercise or purchase price of a stock option or a stock appreciation right.
- *Fungible share counting.* The 2018 Plan contains a “fungible share counting” structure, whereby the number of shares of our common stock available for issuance under the 2018 Plan will be reduced by (i) one share for each share issued pursuant to a stock option or stock appreciation right with an exercise price that is at least 100% of the fair market value of our common stock on the date of grant (an “Appreciation Award”) granted under the 2018 Plan and (ii) 1.1 shares for each share issued pursuant to a stock award that is not an Appreciation Award (a “Full Value Award”) granted under the 2018 Plan. As part of such fungible share counting structure, the number of shares of our common stock available for issuance under the 2018 Plan will be increased by (i) one share for each share that becomes available again for issuance under the terms of the 2018 Plan subject to an Appreciation Award and (ii) 1.1 shares for each share that becomes available again for issuance under the terms of the 2018 Plan subject to a Full Value Award.
- *Awards subject to forfeiture/clawback.* Awards granted under the 2018 Plan are subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, we may impose other clawback, recovery or recoupment provisions in an award agreement, including a reacquisition right in respect of previously acquired shares or other cash or property upon the occurrence of cause.
- *Repricing is not allowed.* The 2018 Plan prohibits the repricing of outstanding stock options and stock appreciation rights and the cancellation of any outstanding stock options or stock appreciation rights that have an exercise or strike price greater than the then-current fair market value of our common stock in exchange for cash or other stock awards under the 2018 Plan without prior stockholder approval.
- *Stockholder approval is required for additional shares.* The 2018 Plan does not contain an annual “evergreen” provision. The 2018 Plan authorizes a fixed number of shares, so that stockholder approval is required to issue any additional shares, allowing our stockholders to have direct input on our equity compensation programs.
- *No liberal change in control definition.* The change in control definition in the 2018 Plan is not a “liberal” definition. A change in control transaction must actually occur in order for the change in control provisions in the 2018 Plan to be triggered.
- *No discounted stock options or stock appreciation rights.* All stock options and stock appreciation rights granted under the 2018 Plan must have an exercise or strike price equal to or greater than the fair market value of our common stock on the date the stock option or stock appreciation right is granted.
- *Administration by independent committee.* The 2018 Plan is administered by the members of our Compensation Committee, all of whom are “non-employee directors” within the meaning of Rule 16b-3 under the Exchange Act and “independent” within the meaning of the Nasdaq listing standards.

- *Material amendments require stockholder approval.* Consistent with Nasdaq rules, the 2018 Plan requires stockholder approval of any material revisions to the 2018 Plan. In addition, certain other amendments to the 2018 Plan require stockholder approval.
- *Limit on non-employee director awards and other awards.* The maximum number of shares subject to stock awards granted during any calendar year to any of our non-employee directors, taken together with any cash fees paid by the Company to such non-employee director during such calendar year, may not exceed \$500,000 in total value (calculating the value of any such stock awards based on the grant date fair value of the stock awards for financial reporting purposes).
- *Restrictions on dividends.* The 2018 Plan provides that (i) no dividends or dividend equivalents may be paid with respect to any shares of our common stock subject to an award before the date such shares have vested, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date such shares are forfeited to or repurchased by us due to a failure to vest.

Overhang

The following table provides certain additional information regarding our equity incentive program.

	<u>As of March 16, 2020</u>
Total number of shares of common stock subject to outstanding stock options (including the 2004 equity incentive plan, the 2013 equity incentive plan and the 2018 Plan)	14,046,564
Weighted-average exercise price of outstanding stock options	\$3.08
Weighted-average remaining term of outstanding stock options	7.61
Total number of shares of common stock subject to outstanding full value awards	532,215
Total number of shares of common stock available for grant under the 2018 Plan	4,551,476
Total number of shares of common stock available for grant under other equity incentive plans	—
	<u>As of Record Date</u>
Total number of shares of common stock outstanding	213,128,580
Per-share closing price of common stock as reported on NASDAQ Global Market	\$1.01

Burn Rate

The following table provides detailed information regarding the activity related to our equity incentive plans for fiscal year 2019.

	<u>Fiscal Year 2019</u>
Total number of shares of common stock subject to stock options granted	5,613,253
Total number of shares of common stock subject to full value awards granted	1,293,690
Weighted-average number of shares of common stock outstanding	195,584,841
Burn Rate	3.5%

Description of the Amended 2018 Plan

The material features of the Amended 2018 Plan are described below. The following description of the Amended 2018 Plan is a summary only and is qualified in its entirety by reference to the complete text of the Amended 2018 Plan. Stockholders are urged to read the actual text of the Amended 2018 Plan in its entirety, which is attached to this proxy statement as Appendix B.

Purpose

The Amended 2018 Plan is designed to secure and retain the services of our employees, directors and consultants, provide incentives for our employees, directors and consultants to exert maximum efforts for the

success of our company and our affiliates, and provide a means by which our employees, directors and consultants may be given an opportunity to benefit from increases in the value of our common stock.

Types of Awards

The terms of the Amended 2018 Plan provide for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, other stock awards, and performance awards that may be settled in cash, stock, or other property.

Shares Available for Awards

Subject to adjustment for certain changes in our capitalization, the aggregate number of shares of our common stock that may be issued under the Amended 2018 Plan, or the Share Reserve, will not exceed the sum of (i) 13,229,678 shares originally added to the Share Reserve in connection with the Company's adoption of the 2018 Plan, (ii) 12,500,000 shares that are subject to approval by our stockholders under this Proposal 3, and any Prior Plans' Returning Shares (as defined below), as such shares become available from time to time.

The "Prior Plans' Returning Shares" are shares subject to outstanding stock awards granted under the Prior Plans that, from and after the effective date of the Amended 2018 Plan, (i) expire or terminate for any reason prior to exercise or settlement, (ii) are forfeited, cancelled or otherwise returned to us because of the failure to meet a contingency or condition required for the vesting of such shares, or (iii) other than with respect to outstanding stock options and stock appreciation rights granted under the Prior Plans with an exercise or strike price of at least 100% of the fair market value of the underlying common stock on the date of grant ("Prior Plans' Appreciation Awards"), are reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with a stock award.

The number of shares of our common stock available for issuance under the Amended 2018 Plan will be reduced by (i) one share for each share of common stock issued pursuant to a stock option or stock appreciation right with an exercise or strike price of at least 100% of the fair market value of the underlying common stock on the date of grant, and (ii) 1.1 shares for each share of common stock issued pursuant to a full value award (i.e., any stock award that is not a stock option or stock appreciation right with an exercise or strike price of at least 100% of the fair market value of the underlying common stock on the date of grant).

If (i) any shares of common stock subject to a stock award are not issued because the stock award expires or otherwise terminates without all of the shares covered by the stock award having been issued or is settled in cash, (ii) any shares of common stock issued pursuant to a stock award are forfeited back to or repurchased by us because of the failure to meet a contingency or condition required for the vesting of such shares, or (iii) with respect to a full value award, any shares of common stock are reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with the award, then such shares will again become available for issuance under the Amended 2018 Plan (collectively, the "Amended 2018 Plan Returning Shares"). For each Amended 2018 Plan Returning Share subject to a full value award, or Prior Plans' Returning Share subject to a stock award other than a Prior Plans' Appreciation Award, the number of shares of common stock available for issuance under the Amended 2018 Plan will increase by 1.1 shares.

Any shares of common stock reacquired or withheld (or not issued) by us to satisfy the exercise or purchase price of a stock award will no longer be available for issuance under the Amended 2018 Plan, including any shares subject to a stock award that are not delivered to a participant because the stock award is exercised through a reduction of shares subject to the stock award. In addition, any shares reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with a stock option or stock appreciation right granted under the Amended 2018 Plan or a Prior Plans' Appreciation Award, or any shares repurchased by us on the open market with the proceeds of the exercise or strike price of a stock option or stock appreciation right granted under the Amended 2018 Plan or a Prior Plans' Appreciation Award will no longer be available for issuance under the Amended 2018 Plan.

Eligibility

All of our (including our affiliates') approximately 230 employees are eligible to participate in the Amended 2018 Plan and may receive all types of awards, including incentive stock options. Our eight non-employee directors and any consultants we may engage are also eligible to participate in the Amended 2018 Plan and may receive all types of awards, other than incentive stock options.

Non-Employee Director Compensation Limit

Under the Amended 2018 Plan, the maximum number of shares of our common stock subject to stock awards granted during any one calendar year to any of our non-employee directors, taken together with any cash fees paid by the Company to such non-employee director during such calendar year, will not exceed \$500,000 in total value (calculating the value of any such stock awards based on the grant date fair value of such stock awards for financial reporting purposes).

Administration

The Amended 2018 Plan will be administered by our Board, which may in turn delegate authority to administer the Amended 2018 Plan to a committee. Our Board has delegated concurrent authority to administer the Amended 2018 Plan to our Compensation Committee, but may, at any time, revert in itself some or all of the power delegated to our Compensation Committee. The Board and the Compensation Committee are each considered to be a Plan Administrator for purposes of this Proposal 3. Subject to the terms of the Amended 2018 Plan, the Plan Administrator may determine the recipients, the types of awards to be granted, the number of shares of our common stock subject to or the cash value of awards, and the terms and conditions of awards granted under the Amended 2018 Plan, including the period of their exercisability and vesting. The Plan Administrator also has the authority to provide for accelerated exercisability and vesting of awards. Subject to the limitations set forth below, the Plan Administrator also determines the fair market value applicable to a stock award and the exercise or strike price of stock options and stock appreciation rights granted under the Amended 2018 Plan.

The Plan Administrator may also delegate to one or more officers the authority to designate employees who are not officers to be recipients of certain stock awards and the number of shares of our common stock subject to such stock awards. Under any such delegation, the Plan Administrator will specify the total number of shares of our common stock that may be subject to the stock awards granted by such officer. The officer may not grant a stock award to himself or herself.

Repricing; Cancellation and Re-Grant of Stock Awards

Under the Amended 2018 Plan, the Plan Administrator does not have the authority to reprice any outstanding stock option or stock appreciation right by reducing the exercise or strike price of the stock option or stock appreciation right or to cancel any outstanding stock option or stock appreciation right that has an exercise or strike price greater than the then-current fair market value of our common stock in exchange for cash or other stock awards without obtaining the approval of our stockholders. Such approval must be obtained within 12 months prior to such an event.

Stock Options

Stock options may be granted under the Amended 2018 Plan pursuant to stock option agreements. The Amended 2018 Plan permits the grant of stock options that are intended to qualify as incentive stock options, or ISOs, and nonstatutory stock options, or NSOs.

The exercise price of a stock option granted under the Amended 2018 Plan may not be less than 100% of the fair market value of the common stock subject to the stock option on the date of grant and, in some cases (see "Limitations on Incentive Stock Options" below), may not be less than 110% of such fair market value.

The term of stock options granted under the Amended 2018 Plan may not exceed ten years and, in some cases (see "Limitations on Incentive Stock Options" below), may not exceed five years. Except as otherwise provided in a participant's stock option agreement or other written agreement with us or one of our affiliates, if a participant's service relationship with us or any of our affiliates (referred to in this Proposal 3 as "continuous service") terminates (other than for cause and other than upon the participant's death or disability), the participant may exercise any vested stock options for up to three months following the participant's termination of continuous service. Except as otherwise provided in a participant's stock option agreement or other written agreement with us or one of our affiliates, if a participant's continuous service terminates due to the participant's disability or death (or the participant dies within a specified period, if any, following termination of continuous service), the participant, or his or her beneficiary, as applicable, may exercise any vested stock options for up to 12 months following the participant's termination due to the participant's disability or for up to 18 months

following the participant's death. Except as explicitly provided otherwise in a participant's stock option agreement or other written agreement with us or one of our affiliates, if a participant's continuous service is terminated as a result of the participant's retirement (as defined in the Amended 2018 Plan), then the participant may exercise his or her vested option, but only within such period of time ending on the earlier of (i) the date twenty-four months following such termination of continuous service, and (ii) the expiration of the term of the option, and if a participant's continuous service is terminated for cause (as defined in the Amended 2018 Plan), all stock options held by the participant will terminate upon the participant's termination of continuous service and the participant will be prohibited from exercising any stock option from and after such termination date. Except as otherwise provided in a participant's stock option agreement or other written agreement with us or one of our affiliates, the term of a stock option may be extended if the exercise of the stock option following the participant's termination of continuous service (other than for cause and other than upon the participant's death or disability) would be prohibited by applicable securities laws or if the sale of any common stock received upon exercise of the stock option following the participant's termination of continuous service (other than for cause) would violate our insider trading policy. In no event, however, may a stock option be exercised after its original expiration date.

Acceptable forms of consideration for the purchase of our common stock pursuant to the exercise of a stock option under the Amended 2018 Plan will be determined by the Plan Administrator and may include payment: (i) by cash, check, bank draft or money order payable to us; (ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board; (iii) by delivery to us of shares of our common stock (either by actual delivery or attestation); (iv) by a net exercise arrangement (for NSOs only); or (v) in other legal consideration approved by the Plan Administrator.

Stock options granted under the Amended 2018 Plan may become exercisable in cumulative increments, or "vest," as determined by the Plan Administrator at the rate specified in the stock option agreement. Shares covered by different stock options granted under the Amended 2018 Plan may be subject to different vesting schedules as the Plan Administrator may determine.

The Plan Administrator may impose limitations on the transferability of stock options granted under the Amended 2018 Plan in its discretion. Generally, a participant may not transfer a stock option granted under the Amended 2018 Plan other than by will or the laws of descent and distribution or, subject to approval by the Plan Administrator, pursuant to a domestic relations order or an official marital settlement agreement. However, the Plan Administrator may permit transfer of a stock option in a manner that is not prohibited by applicable tax and securities laws. In addition, subject to approval by the Plan Administrator, a participant may designate a beneficiary who may exercise the stock option following the participant's death.

Limitations on Incentive Stock Options

The aggregate fair market value, determined at the time of grant, of shares of our common stock with respect to ISOs that are exercisable for the first time by a participant during any calendar year under all of our stock plans may not exceed \$100,000. The stock options or portions of stock options that exceed this limit or otherwise fail to qualify as ISOs are treated as NSOs. No ISO may be granted to any person who, at the time of grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any affiliate unless the following conditions are satisfied:

- the exercise price of the ISO must be at least 110% of the fair market value of the common stock subject to the ISO on the date of grant; and
- the term of the ISO must not exceed five years from the date of grant.

Subject to adjustment for certain changes in our capitalization, the aggregate maximum number of shares of our common stock that may be issued pursuant to the exercise of ISOs under the Amended 2018 Plan is 9,000,000 shares.

Stock Appreciation Rights

Stock appreciation rights may be granted under the Amended 2018 Plan pursuant to stock appreciation right agreements. Each stock appreciation right is denominated in common stock share equivalents. The strike price of each stock appreciation right will be determined by the Plan Administrator, but will in no event be less than 100% of the fair market value of the common stock subject to the stock appreciation right on the date of grant.

The Plan Administrator may also impose restrictions or conditions upon the vesting of stock appreciation rights that it deems appropriate. The appreciation distribution payable upon exercise of a stock appreciation right may be paid in shares of our common stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the stock appreciation right agreement. Stock appreciation rights will be subject to the same conditions upon termination of continuous service and restrictions on transfer as stock options under the Amended 2018 Plan.

Restricted Stock Awards

Restricted stock awards may be granted under the Amended 2018 Plan pursuant to restricted stock award agreements. A restricted stock award may be granted in consideration for cash, check, bank draft or money order payable to us, the participant's services performed for us or any of our affiliates, or any other form of legal consideration acceptable to the Plan Administrator. Shares of our common stock acquired under a restricted stock award may be subject to forfeiture to or repurchase by us in accordance with a vesting schedule to be determined by the Plan Administrator. Rights to acquire shares of our common stock under a restricted stock award may be transferred only upon such terms and conditions as are set forth in the restricted stock award agreement. A restricted stock award agreement may provide that any dividends paid on restricted stock will be subject to the same vesting conditions as apply to the shares subject to the restricted stock award. Upon a participant's termination of continuous service for any reason, any shares subject to restricted stock awards held by the participant that have not vested as of such termination date may be forfeited to or repurchased by us.

Restricted Stock Unit Awards

Restricted stock unit awards may be granted under the Amended 2018 Plan pursuant to restricted stock unit award agreements. Payment of any purchase price may be made in any form of legal consideration acceptable to the Plan Administrator. A restricted stock unit award may be settled by the delivery of shares of our common stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the restricted stock unit award agreement. Restricted stock unit awards may be subject to vesting in accordance with a vesting schedule to be determined by the Plan Administrator. Dividend equivalents may be credited in respect of shares of our common stock covered by a restricted stock unit award, provided that any additional shares credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying restricted stock unit award. Except as otherwise provided in a participant's restricted stock unit award agreement or other written agreement with us or one of our affiliates, restricted stock units that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

Performance Awards

The Amended 2018 Plan allows us to grant performance stock awards.

A performance stock award is a stock award that is payable (including that may be granted, may vest, or may be exercised) contingent upon the attainment of pre-determined performance goals during a performance period. A performance stock award may require the completion of a specified period of continuous service. The length of any performance period, the performance goals to be achieved during the performance period, and the measure of whether and to what degree such performance goals have been attained will be determined by the Plan Administrator in its discretion. In addition, to the extent permitted by applicable law and the performance stock award agreement, the Plan Administrator may determine that cash may be used in payment of performance stock awards.

Performance goals under the Amended 2018 Plan will be based on any one or more of the following performance criteria: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization; (iv) total stockholder return; (v) return on equity or average stockholder's equity; (vi) return on assets, investment, or capital employed; (vii) stock price; (viii) margin (including gross margin); (ix) income (before or after taxes); (x) operating income; (xi) operating income after taxes; (xii) pre-tax profit; (xiii) operating cash flow; (xiv) sales or revenue targets; (xv) increases in revenue or product revenue; (xvi) expenses and cost reduction goals; (xvii) improvement in or attainment of working capital levels; (xviii) economic value added (or an equivalent metric); (xix) market share; (xx) cash flow; (xxi) cash flow per share; (xxii) share price performance; (xxiii) debt

reduction; (xxiv) implementation or completion of projects or processes; (xxv) customer satisfaction; (xxvi) stockholders' equity; (xxvii) capital expenditures; (xxiii) debt levels; (xxix) operating profit or net operating profit; (xxx) workforce diversity; (xxxi) growth of net income or operating income; (xxxii) billings; and (xxxiv) other measures of performance selected by the Plan Administrator.

Performance goals may be based on a company-wide basis, with respect to one or more business units, divisions, affiliates or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. The Plan Administrator is authorized to make appropriate adjustments in the method of calculating the attainment of performance goals for a performance period as follows: (i) to exclude restructuring and/or other nonrecurring charges; (ii) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated net sales and operating earnings; (iii) to exclude the effects of changes to generally accepted accounting standards required by the Financial Accounting Standards Board; (iv) to exclude the effects of any items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (v) to exclude the effects to any statutory adjustments to corporate tax rates; and (vi) to make other appropriate adjustments selected by the Plan Administrator.

In addition, the Plan Administrator retains the discretion to reduce or eliminate the compensation or economic benefit due upon the attainment of any performance goals and to define the manner of calculating the performance criteria it selects to use for a performance period.

Other Stock Awards

Other forms of stock awards valued in whole or in part by reference to, or otherwise based on, our common stock may be granted either alone or in addition to other stock awards under the Amended 2018 Plan. Subject to the terms of the Amended 2018 Plan, the Plan Administrator will have sole and complete authority to determine the persons to whom and the time or times at which such other stock awards will be granted, the number of shares of our common stock to be granted and all other terms and conditions of such other stock awards.

Clawback Policy

Awards granted under the Amended 2018 Plan will be subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Plan Administrator may impose other clawback, recovery or recoupment provisions in an award agreement as the Plan Administrator determines necessary or appropriate, including a reacquisition right in respect of previously acquired shares of our common stock or other cash or property upon the occurrence of cause.

Changes to Capital Structure

In the event of certain capitalization adjustments, the Plan Administrator will appropriately adjust: (i) the class(es) and maximum number of securities subject to the Amended 2018 Plan; (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of ISOs; and (iii) the class(es) and number of securities and price per share of stock subject to outstanding stock awards.

Transactions

In the event of a transaction (as defined in the Amended 2018 Plan and described below), the Board of Directors will have the discretion to take one or more of the following actions with respect to outstanding stock awards (contingent upon the closing or completion of such transaction), unless otherwise provided in the stock award agreement or other written agreement with the participant or unless otherwise provided by the Board of Directors at the time of grant:

- arrange for the surviving or acquiring corporation (or its parent company) to assume or continue the award or to substitute a similar stock award for the award (including an award to acquire the same consideration paid to our stockholders pursuant to the transaction);
- arrange for the assignment of any reacquisition or repurchase rights held by us with respect to the stock award to the surviving or acquiring corporation (or its parent company);

- accelerate the vesting (and, if applicable, the exercisability) of the stock award and provide for its termination prior to the effective time of the transaction;
- arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us with respect to the award;
- cancel or arrange for the cancellation of the stock award, to the extent not vested or exercised prior to the effective time of the transaction, in exchange for such cash consideration, if any, as the Board of Directors may consider appropriate; and
- make a payment, in such form as may be determined by the Board of Directors, equal to the excess, if any, of (i) the value of the property the participant would have received upon the exercise of the stock award immediately prior to the effective time of the transaction, over (B) any exercise price payable in connection with such exercise.

The Board of Directors is not obligated to treat all stock awards or portions of stock awards in the same manner. The Board of Directors may take different actions with respect to the vested and unvested portions of a stock award.

For purposes of the Amended 2018 Plan, a transaction will be deemed to occur in the event of a corporate transaction or a change in control. A corporate transaction generally means the consummation of (i) a sale or other disposition of all or substantially all of our consolidated assets, (ii) a sale or other disposition of at least 90% of our outstanding securities, (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation, or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

A change of control generally means (i) the acquisition by a person or entity of more than 50% of our combined voting power other than by merger, consolidation or similar transaction; (ii) a consummated merger, consolidation or similar transaction immediately after which our stockholders cease to own more than 50% of the combined voting power of the surviving entity; (iii) a consummated sale, lease or exclusive license or other disposition of all or substantially of our consolidated assets; (iv) the complete dissolution or liquidation of the Company; or (v) when a majority of the board of directors becomes comprised of individuals whose nomination, appointment, or election was not approved by a majority of the board members or their approved successors.

Change in Control

Under the Amended 2018 Plan, a stock award may be subject to additional acceleration of vesting and exercisability upon or after a change in control (as defined in the Amended 2018 Plan and described below) as may be provided in the participant's stock award agreement, in any other written agreement with us or one of our affiliates or in our director compensation policy, but in the absence of such provision, no such acceleration will occur. The acceleration of vesting of an award in the event of a corporate transaction or a change in control event under the Amended 2018 Plan may be viewed as an anti-takeover provision, which may have the effect of discouraging a proposal to acquire or otherwise obtain control of us.

Plan Amendments and Termination

The Plan Administrator will have the authority to amend or terminate the Amended 2018 Plan at any time. However, except as otherwise provided in the Amended 2018 Plan or an award agreement, no amendment or termination of the Amended 2018 Plan may materially impair a participant's rights under his or her outstanding awards without the participant's consent. We will obtain stockholder approval of any amendment to the Amended 2018 Plan as required by applicable law and listing requirements. No incentive stock options may be granted under the Amended 2018 Plan after the tenth anniversary of the date the Amended 2018 Plan was adopted by our Board.

U.S. Federal Income Tax Consequences

The following is a summary of the principal United States federal income tax consequences to participants and us with respect to participation in the Amended 2018 Plan. This summary is not intended to be exhaustive and does not discuss the income tax laws of any local, state or foreign jurisdiction in which a participant may

reside. The information is based upon current federal income tax rules and therefore is subject to change when those rules change. Because the tax consequences to any participant may depend on his or her particular situation, each participant should consult the participant's tax adviser regarding the federal, state, local and other tax consequences of the grant or exercise of an award or the disposition of stock acquired the Amended 2018 Plan. The Amended 2018 Plan is not qualified under the provisions of Section 401(a) of the Code and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974. Our ability to realize the benefit of any tax deductions described below depends on our generation of taxable income as well as the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations.

Nonstatutory Stock Options

Generally, there is no taxation upon the grant of an NSO if the stock option is granted with an exercise price equal to the fair market value of the underlying stock on the grant date. Upon exercise, a participant will recognize ordinary income equal to the excess, if any, of the fair market value of the underlying stock on the date of exercise of the stock option over the exercise price. If the participant is employed by us or one of our affiliates, that income will be subject to withholding taxes. The participant's tax basis in those shares will be equal to his or her fair market value on the date of exercise of the stock option, and the participant's capital gain holding period for those shares will begin on that date.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant.

Incentive Stock Options

The Amended 2018 Plan provides for the grant of stock options that are intended to qualify as "incentive stock options," as defined in Section 422 of the Code. Under the Code, a participant generally is not subject to ordinary income tax upon the grant or exercise of an ISO. If the participant holds a share received upon exercise of an ISO for more than two years from the date the stock option was granted and more than one year from the date the stock option was exercised, which is referred to as the required holding period, the difference, if any, between the amount realized on a sale or other taxable disposition of that share and the participant's tax basis in that share will be long-term capital gain or loss.

If, however, a participant disposes of a share acquired upon exercise of an ISO before the end of the required holding period, which is referred to as a disqualifying disposition, the participant generally will recognize ordinary income in the year of the disqualifying disposition equal to the excess, if any, of the fair market value of the share on the date of exercise of the stock option over the exercise price. However, if the sales proceeds are less than the fair market value of the share on the date of exercise of the stock option, the amount of ordinary income recognized by the participant will not exceed the gain, if any, realized on the sale. If the amount realized on a disqualifying disposition exceeds the fair market value of the share on the date of exercise of the stock option, that excess will be short-term or long-term capital gain, depending on whether the holding period for the share exceeds one year.

For purposes of the alternative minimum tax, the amount by which the fair market value of a share of stock acquired upon exercise of an ISO exceeds the exercise price of the stock option generally will be an adjustment included in the participant's alternative minimum taxable income for the year in which the stock option is exercised. If, however, there is a disqualifying disposition of the share in the year in which the stock option is exercised, there will be no adjustment for alternative minimum tax purposes with respect to that share. In computing alternative minimum taxable income, the tax basis of a share acquired upon exercise of an ISO is increased by the amount of the adjustment taken into account with respect to that share for alternative minimum tax purposes in the year the stock option is exercised.

We are not allowed a tax deduction with respect to the grant or exercise of an ISO or the disposition of a share acquired upon exercise of an ISO after the required holding period. If there is a disqualifying disposition of a share, however, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant, subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and provided that either the employee includes that amount in income or we timely satisfy our reporting requirements with respect to that amount.

Restricted Stock Awards

Generally, the recipient of a restricted stock award will recognize ordinary income at the time the stock is received equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. If, however, the stock is not vested when it is received (for example, if the employee is required to work for a period of time in order to have the right to sell the stock), the recipient generally will not recognize income until the stock becomes vested, at which time the recipient will recognize ordinary income equal to the excess, if any, of the fair market value of the stock on the date it becomes vested over any amount paid by the recipient in exchange for the stock. A recipient may, however, file an election with the Internal Revenue Service, within 30 days following his or her receipt of the stock award, to recognize ordinary income, as of the date the recipient receives the award, equal to the excess, if any, of the fair market value of the stock on the date the award is granted over any amount paid by the recipient for the stock.

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from a restricted stock award will be the amount paid for such shares plus any ordinary income recognized either when the stock is received or when the stock becomes vested.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock award.

Restricted Stock Unit Awards

Generally, the recipient of a restricted stock unit award structured to comply with the requirements of Section 409A of the Code or an exception to Section 409A of the Code will recognize ordinary income at the time the stock is delivered equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. To comply with the requirements of Section 409A of the Code, the stock subject to a restricted stock unit award may generally only be delivered upon one of the following events: a fixed calendar date (or dates), separation from service, death, disability or a change in control. If delivery occurs on another date, unless the restricted stock unit award otherwise complies with or qualifies for an exception to the requirements of Section 409A of the Code (including delivery upon achievement of a performance goal), in addition to the tax treatment described above, the recipient will owe an additional 20% federal tax and interest on any taxes owed.

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from a restricted stock unit award will be the amount paid for such shares plus any ordinary income recognized when the stock is delivered.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock unit award.

Stock Appreciation Rights

Generally, if a stock appreciation right is granted with an exercise price equal to the fair market value of the underlying stock on the grant date, the recipient will recognize ordinary income equal to the fair market value of the stock or cash received upon such exercise. Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the stock appreciation right.

Section 162(m) Limitations

Compensation of persons who are "covered employees" of the Company is subject to the tax deduction limits of Section 162(m) of the Code. The exemption from Section 162(m)'s deduction limit for performance-based compensation has been repealed, effective for taxable years beginning after December 31, 2017, such that compensation paid to our covered employees in excess of \$1 million will not be deductible unless it qualifies for transition relief applicable to certain arrangements in place as of November 2, 2017.

New Plan Benefits

Future benefits under the 2018 Plan are discretionary for our employees, including executive officers, and consultants, and therefore are not currently determinable.

Equity awards for our non-employee directors would be made under the 2018 Plan, if approved by stockholders, pursuant to the Director Compensation Policy. Under the Director Compensation Policy, on the date of each annual meeting, each person who continues to serve as a non-employee member of the Board of Directors following such annual meeting will be granted an equity award with the intended equity value of \$150,000. All option grants will have an exercise price per share equal to the fair market value of our common stock on the date of grant.

Under the Director Compensation Policy, annual non-employee director cash compensation is paid each year in arrears in cash, or at each director's election, in fully vested restricted stock units of our Common Stock that would be issued under the 2018 Plan, if approved by stockholders. The number of shares subject to each such stock award is determined by dividing the value of the cash which would otherwise have been paid to a non-employee director under the Director Compensation Policy by our closing stock price on the date of payment. Because our closing stock price typically changes on a daily basis, it is therefore, not possible to determine the number of shares subject to each such stock award at this time. For additional information regarding our compensation policy for non-employee directors, see the section entitled, "Compensation of Directors".

Plan Benefits

The following table shows, for each of the individuals and the various groups indicated, the number of shares of our common stock underlying awards that have been granted (even if not currently outstanding) under the 2018 Plan since its approval by our stockholders in 2018 and through March 16, 2020.

<u>Name and principal position</u>	<u>Number of awards granted (#)</u>
Michael E. Castagna, Pharm. D. Chief Executive Officer and Director	1,178,403
Steven B. Binder Chief Financial Officer	488,268
David M. Kendall, M.D. Chief Medical Officer	324,526
David B. Thomson, Ph.D., J. D. Executive Vice President, General Counsel and Secretary	491,616
All current executive officers as a group (7 persons)	3,667,549
All current non-executive directors as a group (7 persons)	922,017
Each nominee for director (8 persons):	
Kent Kresa	170,872
Michael E. Castagna, Pharm.D.	1,178,403
Ronald J. Consiglio	170,872
Michael A. Friedman, M.D.	137,315
Jennifer Grancio	—
Anthony Hooper	30,048
Christine Mundkur	104,723
James S. Shannon, M.D., MRCP (UK)	170,872
Each associate of any director, executive officer or nominee (0 persons)	—
Each other person who received or is to receive 5% of awards (0 persons)	—
All employees, including all current non-executive officers, as a group (318 persons)	8,506,620

Securities Authorized For Issuance Under Equity Compensation Plans

See "Securities Authorized For Issuance Under Equity Compensation Plans" on page 57 of this proxy statement for certain information with respect to all of our equity compensation plans in effect as of December 31, 2019.

Required Vote and Board of Directors Recommendation

In this Proposal 3, stockholders are requested to approve the increase in authorized shares of the Amended 2018 Plan. Approval of Proposal 3 requires the affirmative vote of a majority of the shares present or represented by proxy and entitled to vote at the Annual Meeting. Abstentions will be counted toward the tabulation of votes cast on Proposal 3 and will have the same effect as “Against” votes. Broker non-votes are counted towards a quorum, but will have no effect on the outcome of the vote.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS
A VOTE “FOR” PROPOSAL 3.**

PROPOSAL 4

ADVISORY VOTE ON EXECUTIVE COMPENSATION

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the “Dodd-Frank Act”) and Section 14A of the Exchange Act enables the Company’s stockholders to vote to approve, on an advisory or non-binding basis, the compensation of the Company’s named executive officers as described in the “Compensation Discussion and Analysis” section of this proxy statement (commonly referred to as a “say on pay” proposal). This vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the philosophy, policies and practices described in this proxy statement.

The compensation of our named executive officers is disclosed in the Compensation Discussion and Analysis, the compensation tables, and the related narrative disclosure contained in this proxy statement. As discussed in those disclosures, the Company believes that its compensation policies and decisions are appropriately designed to attract and retain the individuals needed to support the Company’s business strategy and to compete effectively with pharmaceutical and biotechnology companies while aligning with the long-term interests of the Company’s stockholders

Applying these philosophies, the Board of Directors has set specific compensation goals designed to help the Company achieve our short and long-term business and performance goals. Our executive compensation program emphasizes pay-for-performance. The compensation package for our executive officers includes both cash and equity incentive plans that align our executives’ compensation with our short-term and long-term performance goals and objectives.

The Board of Directors believes that the base salaries of our executive officers should be set at approximately the median base salary levels of executive officers in our competitive market. The annual cash incentive awards under our short-term incentive plan are intended to compensate our executive officers for achieving our annual goals at the corporate level. The goals for the Company are established so that target attainment is not assured. The attainment of payment for performance at or above target levels requires significant effort on the part of our named executive officers. Our named executive officers’ target annual cash incentive awards are expressed as a percentage of base salary and reflects what we believe are market competitive levels.

Long-term equity incentives are intended to reward executives for growth in stockholder value. In 2019, our long-term equity incentive awards to our named executive officers reflected the grant guidelines we adopted in 2017, and are based on our determination of appropriate and competitive annual award values. The guidelines for executive officers seek to deliver the majority of the award value in stock options. We believe this approach to equity compensation aligns with the interests of stockholders and encourages both stock price growth and retention.

We have no structured perquisite benefits for our named executive officers and we currently do not provide any deferred compensation programs or supplemental pensions to any of our named executive officers.

We believe that our pay practices are reasonable and in the best interests of our Company and our stockholders. To that end, we do not use tax gross-ups, guaranteed bonuses, “single-trigger” benefits payable upon a change in control without a corresponding separation from service, or similar pay practices.

At the 2017 Annual Meeting of Stockholders, our stockholders indicated their preference that the Company solicit a non-binding advisory vote on the compensation of the named executive officers every year. The Board has adopted a policy that is consistent with that preference. In accordance with that policy, this year, we are again asking our stockholders to support the compensation of the Company’s named executive officers as described in this proxy statement by casting a non-binding advisory vote “FOR” the following resolution:

“RESOLVED, that the Company’s stockholders approve, on an advisory basis, the compensation of the named executive officers, as disclosed in the Company’s Proxy Statement for the 2020 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the 2019 Summary Compensation Table and the other related tables and disclosure.”

While this advisory vote on executive compensation is non-binding, the Board of Directors and the Compensation Committee, which is responsible for designing and administering the Company's executive compensation program, will review the voting results and consider the outcome of the vote when making future compensation decisions for named executive officers.

Unless the Board decides to modify its policy regarding the frequency of soliciting say-on-pay votes, the next scheduled say-on-pay vote will be at the 2021 Annual Meeting of Stockholders.

REQUIRED VOTE AND BOARD OF DIRECTORS RECOMMENDATION

Approval of Proposal 4 requires the affirmative vote of a majority of the shares present or represented by proxy and entitled to vote at the Annual Meeting. Abstentions will be counted toward the tabulation of votes cast on the proposal and will have the same effect as "Against" votes. Broker non-votes are counted towards a quorum, but will have no effect on the outcome of the vote.

The Board of Directors recommends that you vote in favor of the compensation of the Company's named executive officers as described in this proxy statement, including the disclosures under "Compensation Discussion and Analysis," the compensation tables and the narrative discussion following the compensation tables.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" PROPOSAL 4.

PROPOSAL 5

RATIFICATION OF SELECTION OF DELOITTE & TOUCHE LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee of the Board of Directors has selected Deloitte & Touche LLP (“Deloitte”), as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2020 and has directed management to submit the selection of Deloitte for ratification by the stockholders at the Annual Meeting.

Deloitte has served as the Company’s independent auditor since 2001. Representatives of Deloitte are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Stockholder ratification of the selection of Deloitte as our independent registered public accounting firm is not required by our Amended and Restated Bylaws or otherwise. The Board of Directors is seeking such ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection of Deloitte as our independent registered public accounting firm, the Audit Committee of the Board of Directors will consider whether to retain that firm for the fiscal year ending December 31, 2020.

REQUIRED VOTE AND BOARD OF DIRECTORS RECOMMENDATION

Approval of Proposal 5 requires the affirmative vote of a majority of the shares present or represented by proxy and entitled to vote at the Annual Meeting. Abstentions will be counted toward the tabulation of votes cast on the proposal and will have the same effect as “Against” votes. Broker non-votes are counted towards a quorum, but will have no effect on the outcome of the vote.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSAL 5

PRINCIPAL ACCOUNTING FEES AND SERVICES

The following table represents aggregate fees billed to the Company for the fiscal years ended December 31, 2019 and 2018 by Deloitte and its subsidiaries, the affiliates of Deloitte & Touche LLP, Deloitte Touche Tohmatsu Limited and its member firm (collectively, the Deloitte entities). All entities which collectively represent the Company’s principal accounting firm.

	2019	2018
Audit Fees ⁽¹⁾	\$ 1,158,592	\$ 1,132,475
Audit-Related ⁽²⁾	153,985	—
Tax Fees ⁽³⁾	130,991	183,625
Other	1,895	—
Total Fees	\$ 1,445,463	\$ 1,316,100

(1) Represents the aggregate fees billed for professional services rendered for the reviews and audit of our consolidated financial statements and internal control over financial reporting including related regulatory filings and related comfort letters on such.

(2) Represents the aggregate fees billed for professional services rendered for consultations regarding financing transactions and acquisitions.

(3) Represents the aggregate fees for professional services rendered for tax compliance, tax advice and tax planning. These fees in 2019 and 2018 represent fees for (i) tax compliance services including the preparation of federal, foreign, state and local tax returns, extensions and estimated tax payments and (ii) tax planning services including advice and coordination related to the wind-up of the Netherlands and German tax structures and entities, state nexus analysis and ownership analysis under Section 382.

All fees described above were pre-approved by the Audit Committee.

PRE-APPROVAL POLICIES AND PROCEDURES

The Audit Committee has adopted a policy and procedures for the pre-approval of audit and non-audit services rendered by our independent registered public accounting firm, Deloitte and the Deloitte entities. The policy generally pre-approves specified services in the defined categories of audit services, audit-related services, tax services and other services up to specified amounts. Pre-approval may also be given on an individual explicit case-by-case basis before the independent principal accounting firm is engaged to provide each service. The pre-approval of services may be delegated to one or more of the Audit Committee’s members, but the decision must be reported to the full Audit Committee at its next scheduled meeting. The delegation of pre-approval of services is limited to non-audit services, as set forth in the Audit Committee Charter.

The Audit Committee has considered whether the provision by the Deloitte entities of the non-audit services described above was allowed under Rule 2-01(c)(4) of Regulation S-X and was compatible with maintaining the independence of the registered public accountants and has concluded that the Deloitte entities were and are independent of us in all respects.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the ownership of the Company's common stock as of March 16, 2020 by: (i) each person, entity or group known to the Company to be the beneficial owner of more than 5% of the Company's common stock; (ii) each director and nominee for director; (iii) each of the executive officers named in the Summary Compensation Table, who we refer to as the named executive officers; and (iv) all current executive officers and directors of the Company as a group. Unless otherwise indicated in the footnotes to the table below and subject to community property laws where applicable, we believe that each of the stockholders named in the table has sole voting and investment power with respect to the shares indicated as beneficially owned.

Applicable percentages are based on 213,128,580 shares outstanding on March 16, 2020, adjusted as required by rules promulgated by the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable on or before May 15, 2020, which is 60 days after March 16, 2020. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Certain of the options in this table are exercisable at any time but, if exercised, are subject to a lapsing right of repurchase until the options are fully vested. Unless otherwise indicated, the address for each person or entity listed in the table is c/o MannKind Corporation, 30930 Russell Ranch Road, Suite 300, Westlake Village, California 91362.

Identity of Owner or Group	Beneficial Ownership	
	Number of Shares	Percent of Total
Named Executive Officers and Directors:		
Greater than 5% Stockholders		
The Mann Group LLC ⁽¹⁾	22,700,000	9.90%
Alfred E. Mann Living Trust ⁽²⁾	23,100,000	9.99%
Named Executive Officers and Directors		
Michael Castagna ⁽³⁾	401,222	*
Steven B. Binder ⁽⁴⁾	68,727	*
David Kendall ⁽⁵⁾	128,719	*
James P. McCauley, Jr. ⁽⁶⁾	118,124	*
David Thomson ⁽⁷⁾	335,518	*
Ronald Consiglio ⁽⁸⁾	119,555	*
Michael Friedman ⁽⁹⁾	73,465	*
Jennifer Grancio ⁽¹⁰⁾	12,019	*
Anthony Hooper ⁽¹¹⁾	96,153	*
Kent Kresa ⁽¹²⁾	286,879	*
Christine Mundkur ⁽¹³⁾	—	*
Henry L. Nordhoff ⁽¹⁴⁾	72,425	*
James S. Shannon ⁽¹⁵⁾	48,882	*
All current executive officers and directors as a group (16 persons)⁽¹⁶⁾	2,318,874	1.09%

* Less than 1%.

- (1) Includes (i) 8,700,000 shares held by The Mann Group LLC ("The Mann Group") and (ii) up to a maximum of 14,000,000 shares issuable upon conversion of outstanding principal and accrued and unpaid interest thereon under a promissory note issued to The Mann Group LLC, dated August 5, 2019, held by The Mann Group (the "The Mann Group convertible note") at a conversion price of \$2.50 per share, which maximum number of shares reflects a 9.99% beneficial ownership conversion limitation (which is applicable to both the Mann Group and its affiliates, and which can be increased to 19.99% upon 65 days' written notice from The Mann Group) in accordance with the terms of the Note. The Alfred E. Mann Living Trust (the "Trust") is the sole member and manager of The Mann Group..
- (2) Includes (i) the shares held by The Mann Group as described in footnote (1) above and (ii) 400,000 shares held of record by the Trust and its affiliates.
- (3) Includes 165,080 shares which Mr. Castagna has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (4) Includes 62,959 shares which Mr. Binder has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.

- (5) Includes 67,118 shares which Dr. Kendall has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (6) Includes 62,959 shares which Mr. McCauley has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (7) Includes 62,959 shares which Mr. Thomson has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (8) Includes 1,666 options which Mr. Consiglio has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (9) Includes 1,666 options which Dr. Friedman has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (10) Includes 12,019 restricted stock units granted to Ms. Grancio that will vest within 60 days of March 16, 2020.
- (11) Mr. Hooper has no outstanding options or restricted stock units that will vest within 60 days of March 16, 2020.
- (12) Includes 1,666 options which Mr. Kresa has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (13) Ms. Mundkur has no outstanding options or restricted stock units that will vest within 60 days of March 16, 2020.
- (14) Includes 1,666 options which Mr. Nordhoff has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (15) Includes 1,666 options which Dr. Shannon has the right to acquire within 60 days of March 16, 2020 pursuant to the exercise of outstanding options.
- (16) Includes the shares described in notes (3) through (15) above, as well as 157,376 shares underlying stock options that other executive officers have the right to acquire within 60 days of March 16, 2020.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following table sets forth our current executive officers and their ages:

Name	Age	Position(s)
Michael E. Castagna, Pharm.D.	43	Chief Executive Officer and Director
Steven B. Binder	57	Chief Financial Officer
David M. Kendall, M.D.	58	Chief Medical Officer
Joseph Kocinsky	56	Chief Technology Officer
David B. Thomson, Ph.D., J.D.	53	Executive Vice President, General Counsel and Secretary
Stuart A. Tross, Ph.D.	53	Chief People and Workplace Officer
Rosabel R. Alinaya	59	Vice President, Investor Relations and Treasury

Michael E. Castagna, Pharm.D. Mr. Castagna’s biographical information is included under Proposal 1 above.

Steven B. Binder has been our Chief Financial Officer since July 2017. Before joining us, since 2013 Mr. Binder served as Vice President and Chief Financial Officer of the International Group of Stryker Corporation, a leading global medical technology company, based in Singapore. Prior to Stryker, Mr. Binder served in a series of senior leadership roles at BMS. His last four positions at BMS were Vice President, Finance roles over different geographic operating units: United States (2012-2013), Europe (2008-2011), AsiaPacific (2005-2007), and Japan (2003-2005). Prior to his international experience, Mr. Binder served in three senior leadership roles for Oncology Therapeutics Network, a U.S. based independent subsidiary of BMS: Vice President, Strategic Development (2001-2003), Vice President, Customer Operations (2000-2001), and Chief Financial Officer (1997-2000). Before Oncology Therapeutics Network, Mr. Binder progressed through three finance and accounting roles for BMS Worldwide Medicines Group after joining the company in 1992. Before BMS, he worked for Deloitte & Touche LLP in a series of auditing roles with increasing responsibility over an eight year period beginning in 1984. Mr. Binder received a B.S. degree in Accounting and Business Administration from Muhlenberg College and is a Certified Public Accountant.

David M. Kendall, M.D. has been our Chief Medical Officer since February 2018. His career includes over 30 years of experience in diabetes and metabolism research, clinical management, research, and policy advocacy. Most recently, he served as Research Physician and Vice President of Global Medical Affairs for Lilly Diabetes from 2011 to 2018, and during that time was responsible for all medical affairs activities and guided research and development strategy across multiple geographies. In this role, he worked to re-establish Lilly Diabetes as a world class medical organization and added to his extensive experience with both injected and mealtime insulins, as well as devices and continuous glucose monitors. Prior to joining Eli Lilly, Dr. Kendall served as Chief Scientific and Medical Officer at the American Diabetes Association, where he was responsible for all medical affairs, medical education, research, outcomes, and medical policy activities. Earlier in his career, Dr. Kendall served as Medical Director at the International Diabetes Center (1997-2009), Executive Director of Medical Affairs at Amylin Pharmaceuticals from 2005 to 2008, and as a consultant in endocrinology at the Park Nicollet Clinic (1994-1997). He received his M.D. and completed his Post Graduate Medical Training at the University of Minnesota, and earned a B.A. in Biology from St. Olaf College.

Joseph Kocinsky has been our Chief Technology Officer since October 2015. Mr. Kocinsky has over 30 years’ experience in the pharmaceutical industry in technical operations and product development. Prior to joining us in 2003, he held a variety of technical and management positions with increased responsibility at Schering-Plough Corp. Mr. Kocinsky holds a bachelor’s degree in chemical engineering and a master’s degree in Biomedical Engineering from New Jersey Institute of Technology and a master’s degree in Business Administration from Seton Hall University.

David B. Thomson, Ph.D., J.D. has been our General Counsel and Corporate Secretary since January 2002. Prior to joining us, he practiced corporate/commercial and securities law at a major Toronto law firm. Earlier in his career, Mr. Thomson was a post-doctoral fellow at the Rockefeller University. Mr. Thomson obtained his B.S degree, M Sc. degree and Ph.D. from Queens University and obtained his J.D. from the University of Toronto.

Stuart A. Tross, Ph.D. has been our Chief People and Workplace Officer since December 2016, with responsibilities for human resources, information technology, corporate communications and west coast facilities. From 2006 to 2016 he served in various roles of increasing responsibility at Amgen, Inc., most recently as Senior Vice President and Chief Human Resources Officer responsible for human resources and security on a global

basis. From 1998 to 2006 he served in a series of leadership roles at BMS, most recently as Vice President and Global Head of Human Resources for Mead Johnson Company. Stuart received a B.S. degree from Cornell University and M.Sc. and Ph.D. degrees in Industrial-Organizational Psychology from the Georgia Institute of Technology.

Rosabel R. Alinaya has been our Interim Corporate Controller since November 2019 and has been our Vice President, Investor Relations and Treasury since July 2017. Ms. Alinaya also served as Principal Accounting Officer from January 2016 to July 2017 with responsibility for finance, accounting, tax, treasury, investor relations and risk management. Previously, she was our Vice President, Finance since March 2011 after serving as our Corporate Controller since June 2003. Ms. Alinaya began her career at Deloitte & Touche LLP, graduating from California State University, Northridge with a B.S. in Accounting Information Systems.

Executive officers serve at the discretion of our Board of Directors. There are no family relationships between any of our directors and executive officers.

COMPENSATION OF DIRECTORS

Annual Retainers

Each of our non-employee directors receives an annual retainer for service on the Board of Directors and an additional retainer for his or her service on one of our three standing committees, as described below under the subheading “Non-Employee Director Compensation Program”. In the fiscal year ended December 31, 2019, the aggregate annual retainer earned by non-employee directors was \$332,500.

Equity Awards

Each non-employee director of the Company also received annual equity awards under the 2018 Plan pursuant to our non-employee director compensation program, as described below under the subheading “Non-Employee Director Compensation Program.”

The following table sets forth information concerning director compensation received for the fiscal year ended December 31, 2019 by our non-employee directors.

Director Compensation Table

Name	Fees Earned or Paid in Cash (\$)	Option Awards (\$)⁽¹⁾	Restricted Stock Units (\$)⁽²⁾	Total (\$)
Ronald J. Consiglio	30,000	—	139,487	169,487
Michael A. Friedman, M.D.	67,500	—	95,191	162,691
Jennifer Grancio ⁽³⁾	—	—	—	—
Anthony Hooper ⁽⁴⁾	—	—	—	—
Kent Kresa	57,500	—	139,487	196,987
Christine Mundkur	90,000	—	143,777	233,777
Henry Nordhoff	60,000	—	95,192	155,192
James S. Shannon	7,500	—	139,487	146,987

(1) There were no option grants to non-employee directors in 2019. We have no consulting agreements with any of our directors pursuant to which stock awards were issued. As of December 31, 2019, our non-employee directors had option grants outstanding to purchase 287,204 shares of our common stock as follows: Ronald J. Consiglio, 55,141 shares; Michael A. Friedman, M.D., 68,660 shares; Kent Kresa, 52,980 shares; Henry Nordhoff, 60,141 shares; and James Shannon, 50,282 shares. Anthony Hooper and Christine Mundkur had no option grants outstanding as of December 31, 2019.

(2) These amounts reflect the grant date fair value of all restricted stock awards to non-employee directors in 2019. Restricted stock units are valued based on the market price on the grant date. Reference Note 12 “Stock Award Plans” in the notes to our financial statements for the period ended December 31, 2019, included in Part IV of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 filed with the SEC on February 25, 2020, which identifies the assumptions made in the valuation of restricted stock awards. Restricted stock awards granted to non-employee directors vest immediately, but the shares are not delivered until there is a separation of service, such as through resignation or retirement from the Board or his or her death. As of December 31, 2019, our non-employee directors had restricted stock grants outstanding to receive 83,276 shares of our common stock as follows: Ronald J. Consiglio, 23,913 shares; Kent Kresa, 27,053 shares; Henry Nordhoff, 17,935 shares; and James Shannon, 14,375 shares; Michael A. Friedman, M.D. and Christine Mundkur had no outstanding restricted stock units as of December 31, 2019.

- (3) Ms. Grancio was appointed to the Board of Directors in March 2020. A partial year retainer of \$10,000 and a prorata annual equity grant equivalent to \$25,000 or 12,019 restricted stock units was awarded to Ms. Grancio on March 23, 2020.
- (4) Mr. Hooper was appointed to the Board of Directors in January 2020. A partial year retainer of \$25,000 and a prorata annual equity grant equivalent to \$37,560 or 30,048 restricted stock units was awarded to Mr. Hooper on March 4, 2020.

Non-Employee Director Compensation Program

Pursuant to our non-employee director compensation program (the “director compensation program”) in effect in 2019, each of our non-employee directors receives an annual retainer of \$50,000 for service on the Board of Directors. Non-employee directors also receive fees for their service on our standing board committees. All Audit Committee members receive \$10,000 per year; all Compensation Committee members, \$7,500 per year; and all Nominating and Corporate Governance Committee members, \$5,000 per year. The chairs of each of these committees receive additional fees as follows: the chair of the Audit Committee receives an additional fee of \$15,000 per year; the chair of the Compensation Committee, \$12,500 per year; and the chair of the Nominating and Corporate Governance Committee, \$5,000 per year. As well, the Chairman receives an additional annual retainer of \$32,500. As of a result of Mr. Kresa’s appointment to the position of Chairman of the Board in February 2016, we do not currently have a lead independent director and expect to keep the lead independent director position vacant for so long as the Chairman and Chief Executive Officer positions continue to be occupied by separate individuals.

The members of the Board of Directors are also eligible for reimbursement for their expenses incurred in attending Board of Directors meetings in accordance with Company policy. Other than the annual fees described above, our non-employee directors do not receive meeting fees or other compensation for their attendance at specific Board or committee meetings.

Our director compensation program specifies that each non-employee director of the Company is eligible to receive annual equity awards under the 2018 Plan. Specifically, each of our non-employee directors receives on the date of each of our annual stockholder meetings a restricted stock unit (RSU) award determined by dividing \$150,000 by the then- current price used for valuing employee equity awards, which in no event is less than the last reported closing price of the Company’s common stock reported on Nasdaq.

Each such annual RSU award vests immediately, but shares are not be distributed until the director separates from service to the board (i.e. retires or is removed) or dies. A non-employee director who does not serve as a non-employee director for the entire period measured from one annual stockholders meeting to the next annual stockholders meeting is entitled to an annual equity award that is reduced proportionately for the period during which such person did not serve as a non-employee director.

After November 2018, non-employee directors have an option to receive their annual \$50,000 retainer in cash or common stock of the Company. If a non-employee director elects to receive his or her annual retainer in common stock, such director will be granted an RSU award consisting of that number of shares that equals 100% of the annual retainer, based on the 20-day trailing average closing price as of the trading day immediately preceding the date of the annual meeting. This award will vest immediately, but shares are not be distributed until the director separates from service to the board (i.e. retires or is removed) or dies. Non-employee directors who elect not to participate in this program will receive the full annual retainer in cash shortly after the date of the stockholder meeting.

EXECUTIVE COMPENSATION

MannKind Corporation is a “smaller reporting company” under Item 10 of Regulation S-K promulgated under the Exchange Act and Rule 12b-2 under the Exchange Act. Although SEC rules allow us to provide scaled disclosure regarding our executive compensation program, we have elected to provide non-scaled disclosure regarding our executive compensation program in this proxy statement.

COMPENSATION DISCUSSION AND ANALYSIS

We are pleased to present our report on executive compensation. This report is intended to assist our stockholders in understanding the objectives and procedures used by the Compensation Committee of our Board of Directors in establishing its recommendations to the Board of Directors regarding the compensation of our executive officers.

Because we are a smaller reporting company under applicable SEC rules, only Mr. Castagna, Dr. Kendall and Mr. Thomson constitute our named executive officers for the year ended December 31, 2019. However, we have elected to voluntarily include disclosure for Mr. Binder and Mr. McCauley as well, as these individuals would have also constituted our named executive officers for the fiscal year ended December 31, 2019 if we did not qualify as a smaller reporting company. When we refer to “named executive officers” for the year ended December 31, 2019 in this proxy statement, we are referring to all five individuals unless the context otherwise requires.

Executive Summary

MannKind Corporation is a biopharmaceutical company with two primary areas of focus: (i) marketing and selling Afrezza® (insulin human) Inhalation Powder, an ultra rapid-acting inhaled insulin used to improve glycemic control in adults with diabetes, and (ii) developing inhaled therapeutic products to treat orphan and other serious lung diseases. During 2019, we derived \$25.3 million in net revenue from sales of Afrezza and \$37.7 million in collaboration and services revenue, primarily from our collaboration with United Therapeutics to develop an inhaled product for the treatment of pulmonary arterial hypertension. Our compensation program, particularly our short-term incentive compensation plan, is designed to give appropriate weight to achievements in both areas of focus that are expected to produce positive shareholder returns over the time periods typically associated with the development cycles of biopharmaceutical products.

Beyond the execution of objectives associated with the short-term incentive compensation plan, the Committee considers a number of other factors when determining executive compensation levels, such as the performance of the Company over differing time periods (for example, 1-, 3- or 5-year periods), external market benchmark data provided by the Committee’s independent consultant, and relevant internal factors such as the contributions, individually and collectively, of the executive leadership team. Based on these and other relevant considerations, the Compensation Committee approved the following decisions related to executive compensation:

- Base salaries for executive officers were frozen for 2020, including the chief executive officer whose salary is benchmarked well below the median of the corresponding salaries of our peer group;
- The achievement of corporate objectives relevant to the short-term incentive compensation plan was mixed – the Afrezza sales objective was underachieved whereas cash management and collaboration-related objectives were overachieved; and
- Areas for improvement in compensation plans were identified and addressed, including the implementation of an incentive-compensation clawback policy as well as stock ownership guidelines (which also apply to non-executive directors).

Oversight of the Executive Compensation Program

The Compensation Committee is responsible for establishing and administering our policies governing the compensation for our executive officers. The Compensation Committee is composed entirely of independent directors within the meaning of applicable SEC and Nasdaq rules. The Compensation Committee’s responsibilities and duties are outlined in detail in the Compensation Committee charter, which is available on our website at www.mannkindcorp.com. A primary responsibility of the Compensation Committee is to make

recommendations regarding the compensation for our executive officers, including the determination and confirmation of annual corporate goal achievement for purposes of awarding short-term incentive compensation, to the full Board of Directors for its approval. As part of this process, the Compensation Committee has historically invited our CEO to attend Compensation Committee meetings or portions thereof to obtain his insight and guidance, though the Chief Executive Officer is not a member of the Compensation Committee. The Compensation Committee engages outside consulting firms to assist in developing compensation levels and practices and to provide external market data. In 2019, the Compensation Committee engaged Mercer LLC to benchmark the compensation levels of ten executive positions relative to a group of peer companies. The Compensation Committee may select, or receive advice from, a compensation consultant, legal counsel or other adviser to the Compensation Committee, other than in-house legal counsel and certain other types of advisers, only after taking into consideration six factors, prescribed by the SEC and Nasdaq, that bear upon the adviser's independence; however, there is no requirement that any adviser be independent. The Compensation Committee conducted an independence assessment with respect to Mercer's role in recommending or determining the amount and form of executive compensation and considered the required six factors. After conducting this assessment, the Compensation Committee concluded that Mercer's role in recommending or determining the amount and form of executive compensation for the fiscal year ended December 31, 2019 did not raise any conflict of interest.

The Compensation Committee meets outside the presence of our CEO in order to consider the appropriate compensation for our CEO. The Compensation Committee relies on compensation data provided by Mercer in setting CEO compensation and met without the CEO in setting his compensation. The CEO in 2019 did not maintain personal or business relationships (including any interlocking relationships) with any of the Compensation Committee members (outside of their relationship within the Company) that would impair the Compensation Committee members' ability to remain independent and assess the CEO's compensation without any conflict of interest. Thus, the determination of the CEO compensation was made without undue influence from the CEO. During 2019, for all other named executive officers, the Compensation Committee met outside the presence of all executive officers except our CEO. The annual performance of each of our executive officers is considered by the Compensation Committee when making decisions regarding base salary, targets for and payments under our short-term incentive plan and grants of equity incentive awards. When making recommendations regarding individual executive officers, the Compensation Committee considers the importance of the position to us, the past compensation history of the executive officer and the contributions made by the individual in the past and the contributions we expect the executive officer to make in the future towards the success of our business.

Compensation Philosophy and Objectives

The Compensation Committee oversees our executive compensation within the context of a compensation philosophy. This philosophy is to provide compensation and benefits programs designed to attract, engage, and retain a high caliber workforce that enables us to compete with companies in the pharmaceutical and biotechnology industries and to reward individual and corporate performance. We believe that a well-designed compensation program for our executive officers should:

- align the goals of the executive officer with the goals of our stockholders;
- recognize individual initiative and achievement;
- provide total compensation that enables us to compete with companies in the pharmaceutical and biotechnology industries; and
- align compensation with our short-term and long-term corporate objectives and strategy, focusing executive officer behavior on the fulfillment of those objectives.

In keeping with this philosophy, our executive compensation program is designed to achieve the following objectives:

- attract talented and experienced executives;
- motivate and reward executives whose knowledge, skills and performance are critical to our success;
- retain executives and employees who are instrumental in accomplishing our corporate goals;

- align the interests of our executives and stockholders by motivating executives to increase stockholder value and rewarding executives when stockholder value increases;
- provide a competitive compensation package which is weighted towards pay-for-performance (including, when appropriate, long-term incentives such as performance stock options), and in which total compensation is primarily determined by the Company's and the individual's achievement of results;
- ensure fairness among the executive management team by recognizing the contributions each executive makes to our success;
- foster a shared commitment among executives by aligning the Company's and their individual goals; and
- compensate our executives to manage our business to meet our long-term objectives.

Competitive Market Assessment

No less frequently than annually, the Compensation Committee reviews competitive market data to determine if our compensation levels remain at targeted levels and our pay practices are appropriate. These assessments include a review of base salary, annual incentives, and long-term incentives. These components are evaluated against a group of peer companies. MannKind also considers industry specific and general published survey compensation data, such as the Radford Global Life Sciences Executive Survey, if we determine that peer group data is not sufficiently robust. Since 2009, the Compensation Committee has engaged Mercer to benchmark the compensation levels of senior executive positions relative to a group of peer companies.

Peer Group

As part of our annual peer group review process, we have developed a peer group for benchmarking purposes, by considering companies in the same industry with similar company characteristics, such as revenue, market capitalization, and number of employees. Specifically, we consider companies with a similar competitive strategy, including utilizing an internal sales force, and maintaining internal manufacturing capabilities. We also consider companies that are included in the peer group used by Institutional Shareholder Services for their benchmarking purposes. All companies in our peer group are either biotechnology or pharmaceutical companies. Companies were selected with various revenue sizes and market capitalizations because we are primarily recruiting from and competing for executive talent with companies that are generating revenue.

For compensation considerations in 2019, the peer group consisted of ten companies. Based on our prospects and characteristics in the first quarter of 2019, the Compensation Committee removed two companies from our peer group list: Acadia Pharmaceuticals Inc. (which had experienced significant revenue growth) and NewLink Genetics Corporation (which had experienced significant declines in revenue and market capitalization since its addition to the peer group). In place of those two companies, the Committee added Seres Therapeutics, Inc., which was considered a good match in terms of revenue, headcount, market capitalization and internal sales and manufacturing capabilities, and Dynavax Technologies Inc., which shared these characteristics and was actively marketing an approved product. The complete 2019 peer group was as follows:

Arena Pharmaceuticals Inc.	Macrogenics Inc.
Accelaron Pharma Inc.	Momenta Pharmaceuticals
Dynavax Technologies Inc.	Rigel Pharmaceuticals Inc.
Intersect Ent Inc.	Seres Therapeutics, Inc.
Lexicon Pharmaceuticals Inc.	Vanda Pharmaceuticals Inc.

In accordance with our annual process, the Compensation Committee reviewed our peer group in the first quarter of 2020. Based on data compiled and reviewed by the Compensation Committee during this process, the Committee determined that all peers continue to serve as appropriate comparators. In addition, two companies – Agenus Inc. and La Jolla Pharmaceutical Company – were selected as additions to the 2020 peer group. Both of the added companies were considered well matched to the Company in terms of number of employees and market capitalization; moreover, La Jolla Pharmaceutical utilizes an internal sales force to market an approved product and Agenus has internal manufacturing capabilities. Both added companies are considered peers by Institutional Shareholder Services. Accordingly, the full 2020 peer group consists of the following companies:

Agenus Inc.	Lexicon Pharmaceuticals Inc.
Arena Pharmaceuticals Inc.	Macrogenics Inc.
Accelaron Pharma Inc.	Momenta Pharmaceuticals
Dynavax Technologies Inc.	Rigel Pharmaceuticals Inc.
Intersect Ent Inc.	Seres Therapeutics, Inc.
La Jolla Pharmaceutical Company	Vanda Pharmaceuticals Inc.

Market Positioning

The Compensation Committee reviews executive compensation at least annually, establishes competitive compensation levels and designs the compensation program to provide pay commensurate with individual and corporate performance. With support from Mercer, we have positioned target total compensation levels for executives at the 50th percentile of our peer group on the basis that we believe this target to be an appropriate level of compensation to attract and retain qualified and capable executives. However, compensation may fall above or below this level under a range of circumstances, such as individual performance, tenure with the Company or retention concerns. For positions that do not have sufficient counterparts at our peer companies, we supplement the peer group data with the survey data described above.

We believe our executive compensation packages are reasonable when considering our business strategy, the revenue potential of our business, our compensation philosophy and the competitive market pay data.

In addition to the factors listed above, we also consider, among other things:

- our business need for the executive officer's skills;
- the contributions that the executive officer has made or we believe will make to our success;
- the transferability of the executive officer's managerial skills to other potential employers; and
- the relevance of the executive officer's experience to other potential employers, particularly in the pharmaceutical and biotechnology industries.

Pay-for-Performance

Our executive compensation program emphasizes pay-for-performance. As described below, both our short term and long term incentive plans are now tied to the financial metric of sales generated; however, we also include other metrics such as management of net cash used in operating activities, progress of our clinical development objectives and regulatory submissions, and execution of business development goals. The compensation package for our executive officers include both cash and equity incentive plans that align an executive's compensation with our short-term and long-term performance goals and objectives.

The annual cash incentive awards under our short-term incentive compensation plan are intended to compensate our executive officers for achieving our annual goals at the corporate level and for achieving individual annual performance objectives. The goals for our company and individual measures are established so that target attainment is not assured. The attainment of payment for performance at or above target levels requires significant effort on the part of our executives. Long-term equity incentives are intended to reward executives for growth in stockholder value. As described below, our current compensation guidelines for executive officers seek to deliver a majority of the award value in stock options. In connection with particularly significant future milestones, we have on such occasions awarded performance-based awards, in which the vesting is tied to the achievement of the relevant milestone rather than the passage of time. We believe that this equity along with our performance-based short-term incentive compensation plan, places a significant portion of

our executive compensation at risk, encouraging corporate performance and stock price growth. Additional details of the plan are described below under “Short-term Incentive Plan” and “Long-Term Incentives”.

Consideration of Say-on-Pay Results

At our 2019 Annual Meeting of Stockholders, 39,066,556 out of 58,324,457, or 67%, of the votes cast on the proposal approved, on an advisory basis, the compensation of our named executive officers. This level of support for executive compensation was lower than was obtained in previous years (2018 – 83%; 2017 – 90%), so we sought to better understand the basis for our 2019 say-on-pay result. An analysis of institutional voting indicated that 19 institutional investors holding a total of 38,985,196 shares voted in favor of the advisory proposal whereas two institutional investors holding a total of 954,923 shares voted against it. Another 110 institutional investors holding a total of 20,219,921 shares did not cast any votes at the 2019 Annual Meeting. We identified a further 23 institutional investors that voted at the 2019 Annual Meeting but whose ownership level was not available. Of these, 21 voted in favor of the proposal and two voted against. This analysis suggested that most of the votes against our say-on-pay proposal were cast by retail shareholders, a group that is more difficult to engage in outreach efforts than institutional investors.

Following the 2019 Annual Meeting, the Compensation Committee tasked Mercer to assess the alignment of our compensation policies to current best practices in executive compensation and governance, with an emphasis on the executive compensation policies of the larger institutional investors as of the 2019 proxy season. Several areas of improvement were identified in that analysis, which led to the subsequent adoption by the Company of an incentive compensation clawback policy and stock ownership guidelines for all directors and officers, both which are described in more detail below. In addition, two members of the Compensation Committee, in their capacity as members of the Nominating and Corporate Governance Committee, exchanged written correspondence with one of the Company’s largest institutional investors discussing corporate governance and board diversity topics.

In parallel with these actions taken by independent directors, members of the Company’s management team met with certain institutional investors at various times after the 2019 Annual Meeting. Most of these one-on-one meetings were held in connection with investor conferences attended by our chief executive officer and our chief financial officer. These meetings covered a variety of topics and were used as opportunities to engage in a two-way exchange of information, so that investors received updates on Company operations and provided guidance related to their specific investment policies and criteria.

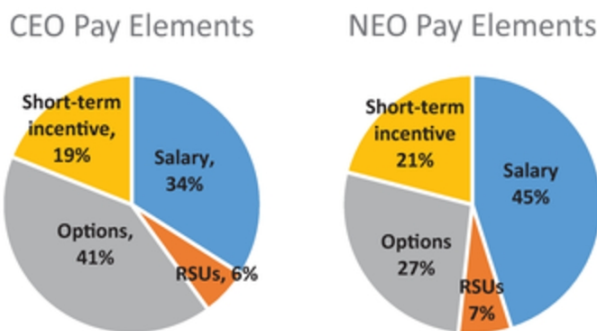
Currently, salaries for executive officers are frozen for 2020. The Compensation Committee, with support from Mercer combined with the insights obtained from management meetings with institutional investors, will continue to evaluate our compensation programs and trends in executive compensation and will implement changes to our executive compensation programs as necessary to ensure that they are aligned with stockholders’ best interests.

COMPENSATION COMPONENTS

In order to provide a total compensation package that is tied to stockholder value creation and the achievement of strategic corporate goals, our executive compensation package is comprised of several components. These components are designed to work together to create a balanced approach to compensation, rewarding both short-term and long-term performance and fostering sufficient retentive effect to secure the services of our executive officers while we execute on our plans. Currently, our compensation structure for executive officers includes a combination of base salary, short-term incentive compensation, stock options and restricted stock awards, 401(k), medical and other benefits, severance and change in control and other post termination provisions. Each component is described in further detail below.

The following charts depict the allocation of the total direct compensation that the CEO and the other named executive officers (on average) earned in 2019 and, in the case of equity awards, were granted in 2019. These charts exclude income associated with employer contributions to individual 401(k) plans, supplemental medical benefits, airline club reimbursements and other taxable income detailed in the summary compensation table on page 47. The charts illustrate the extent to which a greater percentage of total compensation (short-term incentive, stock options and RSUs) for our executives is delivered in the form of variable compensation, the value of which fluctuates based on our stock price, as compared to fixed compensation (salary). The special RSUs awarded to named executive officers in 2019 could be regarded as more akin to time-based compensation,

given that they have a short (one-year) vesting period and were awarded to recognize certain achievements in 2018 that were not captured by the 2018 short-term incentive plan. Even so, performance-based compensation in the form of stock options and short-term incentive compensation represents 60% and 48% of the 2019 total compensation for the CEO and the other named executive officers, respectively.



The Compensation Committee believes that the above compensation structure appropriately balanced promoting long-term stockholder value creation and preventing excessive risk-taking.

Base Salary

Base salaries are designed to provide compensation for day-to-day management of the Company assuming satisfactory levels of performance. This component is designed to provide consistent and steady cash flow for the executive and represents only a portion of total compensation. Salary levels are based primarily upon the competitive market for the executive officers' services, as reflected by the peer group. Base salaries for our executives are generally intended to fall within 10% of the median of the competitive market, although the base salary for our chief executive officer is currently positioned below the 25th percentile of the market median. Given the Company's performance over the last three years, there are no current plans to move his salary closer to the median. Individual performance, responsibility, and the importance of each role in our organization can also impact base salary levels.

Short-term Incentive Plan

Each of our executive officers are eligible to receive annual performance-based cash payments. The annual cash incentive awards under our short-term incentive ("STI") plan are intended to compensate our executive officers for achieving our annual goals at the corporate level.

Our plan is funded based on the achievement of overall corporate goals, based on a careful review by the Compensation Committee of the accomplishments of the Company during the previous year.

For 2019, there were four main corporate objectives that were specified in early 2019 and subsequently evaluated in March 2020 as follows:

Objective	Weight	Assessment	Result
Achieve Afrezza net sales expectations	40%	Assessed quantitatively on the basis of net revenue.	9/40 points
Deliver cash on hand expectations	20%	Assessed quantitatively on the basis of cash and cash equivalents plus cash available from committed financing sources at year-end that exceeded a specified percentage of total actual 2019 net cash used in operating activities.	40/20 points
Deliver on business development priorities	20%	Assessed quantitatively on the basis that milestones associated with United Therapeutics collaboration were achieved ahead of schedule (19/15) Other specified business development priorities, including with respect to partners in Brazil, India and Australia, were assessed on qualitative achievements (5/5)	24/20 points
Progress clinical development programs and regulatory submissions	20%	Assessed on the qualitative achievement of the following goals: <ul style="list-style-type: none"> • Progress non-clinical development for two additional compounds <ul style="list-style-type: none"> • Sumatriptan – Formulation complete and rat PK/PD studies initiated (6/6) • Tadalafil – Formulation complete and rat PK/PD studies initiated (6/6) • Achieved specified objectives with respect to Afrezza clinical studies (pharmacokinetics study in pediatric patients and long-term safety study) (4/4) • Establish and test feature set for the BluHale consumer model (4/4) 	20/20 points

Overall result: 93 out of 100 possible points

As a result of this assessment, 93% of the target STI opportunity for each executive officer will be paid in April 2020 as non-equity incentive compensation for 2019.

Each eligible position, including the executive officers, is assigned a target STI opportunity expressed as a percentage of base salary, which reflects market competitive levels. Target STI opportunities are generally intended to be at the 50th percentile of the market, although the target STI opportunity for our chief executive officer is currently positioned below the 25th percentile of the market median. Given the Company's performance over the last three years, there are no current plans to move his target STI opportunity closer to the median. The target STI opportunities for our executive officers for 2019 were as follows: Mr. Castagna, 60%; Mr. Binder, 50%; Dr. Kendall, 50%; Mr. Tross, 50%; Mr. Thomson, 50%; Mr. Kocinsky, 50%; Mr. McCauley, 50%; and Ms. Alinaya, 30%. Payments of target STI opportunities are not guaranteed and are subject to funding and corporate and individual performance.

Long-Term Incentives

In order to provide a significant retention incentive and to ensure a strong link to the long-term interests of stockholders, we provide a portion of our total compensation in the form of equity compensation — specifically, stock options and restricted stock units. All employees, including executive officers, are eligible to receive equity awards. Based on market data and in consultation with our external compensation consultant, the Company has

developed equity guidelines that target the annual long term incentive award at 200% of base salary for the CEO and at 100% of median salary for all other named executive officers. This percentage can be modified at the discretion of the Compensation Committee for a range of reasons, including but not limited to, company performance, individual employee performance, financial position of the company, number of shares available for grant under the equity incentive plan, the volatility of the stock price, and similar factors. For 2019, the equity value delivered to all of the named executive officers was less than the established equity targets noted above, reflecting company performance as well as a desire to preserve shares available for future grant. Equity compensation is typically delivered in stock options, which have no intrinsic value unless the stock price appreciates. Awards of restricted stock units foster equity ownership and encourage retention. We normally target equity compensation at the median of the competitive market, but this is subject to adjustment downward to reflect our performance relative to the market which has been the case during the last three years. The awards are made at the discretion of the Compensation Committee, after taking into consideration the grant guidelines. Equity awards are granted under the 2018 Plan, which is administered by the Compensation Committee pursuant to a delegation of concurrent authority by our Board of Directors.

Our policy with regard to the timing of grants of equity compensation is to issue equity new-hire awards in connection with each employee’s start date and to issue all employees an annual grant of equity awards that generally occurs in May of each year. All employee grants are approved by the Compensation Committee at its regularly scheduled quarterly meeting. The timing of grant dates is not based on any favorable or unfavorable non-public information anticipated to be disclosed at a later date. All stock option awards are granted with an exercise price equal to the closing sale price of our common stock on the Nasdaq Global Market on the date of grant.

In 2019, our Compensation Committee awarded time-based stock options that vest over a four-year period, with 25% of the award vesting after one year and 1/48 of the award vesting monthly thereafter. The time-based options also expire ten years from the date of grant. Awards of restricted stock units typically vest 25% per year over four years. The vesting of all awards ceases when an employee is no longer providing continuous service to the Company.

Clawback Policy

Effective January 1, 2020, all of our executive officers are subject to our clawback policy, which applies to all incentive-based compensation, including cash payments under the short-term incentive compensation plan and vested and unvested equity awards. The policy provides that such incentive-based compensation is subject to clawback for any material financial restatement with the executive at fault as well as any fraud or willful misconduct. The policy applies to any event discovered after January 1, 2020, even if the applicable incentive compensation was paid prior to that date.

Stock Ownership Guidelines

Effective January 1, 2020, all of our executive officers as well as our non-employee directors are subject to our stock ownership guidelines, which require each such individual to hold a specified number of shares of our common stock calculated by dividing the dollar amount below by the current stock price:

Chief Executive Officer	4 times base salary
Executive Vice Presidents	2 times base salary
Senior Vice Presidents and Vice Presidents serving on the Executive Leadership Team	1 times base salary
Non-employee Directors	3 times annual retainer

For purposes of determining stock ownership, all common stock, shares held in retirement accounts, restricted stock units, restricted shares, options (regardless as to whether they are “underwater” or “in the money”) and performance awards are considered eligible. Both vested and unvested equity awards count as eligible. Each individual subject to the stock ownership guidelines has five years to reach the applicable guideline, beginning January 1, 2020 or when the individual is hired, appointed or promoted into the eligible role, whichever is later. Upon completion of the grace period, for anyone out of compliance with the guidelines, the Board or the Compensation Committee may restrict their sale of shares until the guidelines are satisfied or may choose to deliver salary/retainer or STI payments in stock rather than cash.

Other Benefits

We provide a competitive benefits package to all full-time employees, which includes health and welfare benefits, such as medical, dental, vision care, life insurance benefits, and a 401(k) savings plan. Executives, including the named executive officers, receive additional benefits, including executive medical reimbursement insurance, as well as additional short-term and long-term disability insurance.

We have no other structured perquisite benefits (e.g. automobile allowance, club memberships or financial planning services) for any executive officer, including the named executive officers, and we currently do not provide any deferred compensation programs or supplemental pensions to any executive officer, including the named executive officers.

Employee Stock Purchase Plan

In order to encourage stock ownership and provide greater incentives to contribute to our success at all levels, we provide all employees, including executive officers, the ability to purchase our common stock at a discount under our 2004 employee stock purchase plan (the "Purchase Plan"). The Purchase Plan is designed to comply with Section 423 of the Code and provides all employees with the opportunity to purchase up to \$25,000 worth of our common stock (based on the undiscounted fair market value at the commencement of the offering period) each year at a purchase price that is the lower of 85% of the fair market value of the common stock on either the date of purchase or the commencement of the offering period. An employee may not purchase more than 5,000 shares of common stock on any purchase date. The executives' rights under the Purchase Plan are identical to those of all other employees.

Severance Provisions

Currently, we have no severance agreements with our executive officers, except with Mr. Thomson. The terms of the agreement and amounts that may be realized are detailed under the heading "Potential Payments Upon Termination or Change of Control".

Change of Control Provisions

We have entered into change of control agreements with each of our executive officers in order to ensure that we have the continued dedication of these executives and in order to provide them with reasonable compensation and benefit arrangements in the event of termination of their employment following a change of control. We believe that it is imperative to diminish any distraction of our executives arising from the personal uncertainty and insecurity that arises in the absence of any assurance of job security, thereby allowing executives to focus on corporate objectives and strategy. The terms of these agreements and amounts that may be realized are detailed under the heading "Potential Payments Upon Termination or Change of Control."

Tax Considerations

Section 162(m) of the Internal Revenue Code ("Section 162(m)") generally provides that publicly held companies may not deduct compensation paid to certain of their top executive officers to the extent such compensation exceeds \$1 million per officer in any year. The exemption from the deduction limit under Section 162(m) for "performance-based compensation" has been repealed, effective for taxable years beginning after December 31, 2017, such that compensation paid to our "covered employees" in excess of \$1 million will not be deductible unless it qualifies for transition relief applicable to certain arrangements in place as of November 2, 2017 that are not modified in any material respect on or after such date. The Compensation Committee will continue to monitor the applicability of Section 162(m) of the Code to its ongoing compensation arrangements. Because of ambiguities and uncertainties as to the application and interpretation of Section 162(m) and the regulations issued thereunder, including the uncertain scope of the transition relief under the legislation repealing the "performance-based compensation" exemption from the deduction limit, no assurance can be given that any compensation that may have been (or if granted under a binding written contract in place as of November 2, 2017 may be) intended to satisfy the requirements for exemption from Section 162(m), in fact will be exempt. In determining the form and amount of compensation for our named executive officers, the Compensation Committee may continue to consider all elements of the cost of such compensation, including the potential impact of Section 162(m). While the Compensation Committee considers the deductibility of awards as one factor in determining executive compensation, the Compensation Committee may also look at other factors in making its decisions, and retains the flexibility to award compensation that it determines to be consistent with the goals of our executive compensation program even if the awards are not deductible by us for tax purposes.

SUMMARY COMPENSATION TABLE

The following table shows for the year ended December 31, 2019 compensation awarded to, or earned by:

- the individuals who served as our principal executive officer or principal financial officer for any portion of 2019; and
- our three most highly compensated executive officers in 2019, other than the individuals listed above, who were serving as executive officers as of December 31, 2019.

Because we are a smaller reporting company under applicable SEC rules, only Mr. Castagna, Dr. Kendall and Mr. Thomson constitute our named executive officers for the year ended December 31, 2019. However, we have elected to voluntarily include disclosure for Mr. Binder as well, as he would have also constituted a named executive officers for the fiscal year ended December 31, 2019 if we did not qualify as a smaller reporting company. When we refer to “named executive officers” for the year ended December 31, 2019 in this proxy statement, we are referring to the individuals listed in the table below unless the context otherwise requires.

Name and Principal Position	Year	Salary (\$) ⁽¹⁾	Bonus (\$) ⁽²⁾	Restricted Stock Awards (\$) ⁽³⁾	Option Awards (\$) ⁽³⁾	Non-Equity Incentive Plan Compensation (\$) ⁽⁴⁾	All Other Compensation (\$) ⁽⁵⁾	Total (\$)
Michael E. Castagna, PharmD <i>Chief Executive Officer</i>	2019	510,962	—	90,000	617,568	285,117	48,118 ⁽⁶⁾	1,551,765
	2018	500,000	20,000	—	833,040	150,000	5,701	1,508,741
	2017	458,718	—	—	606,160	247,708	20,648	1,333,234
Steven B. Binder <i>Chief Financial Officer</i>	2019	408,769	—	59,999	247,450	190,078	31,555 ⁽⁷⁾	937,851
	2018	400,000	—	—	333,840	100,000	20,452	854,292
	2017	176,923	50,000	—	190,204	79,615	18,581	515,323
David M. Kendall, M.D. <i>Chief Medical Officer</i>	2019	434,317	50,000	55,168	247,450	201,958	25,968 ⁽⁸⁾	1,014,862
	2018	367,789	50,000	—	461,670	91,947	175,495	1,146,901
James P. McCauley, Jr. <i>Chief Commercial Officer</i>	2019	408,769	—	59,999	247,450	190,078	15,212 ⁽⁹⁾	921,509
	2018	400,000	—	—	333,840	100,000	231,642	1,065,482
David B. Thomson, Ph.D., J.D. <i>General Counsel and Secretary</i>	2019	442,754	—	64,988	247,450	205,880	27,338 ⁽¹⁰⁾	988,410
	2018	433,255	20,000	—	333,840	108,314	19,716	915,125
	2017	435,839	—	—	151,076	193,936	36,234	817,085

- (1) Includes amounts earned but deferred at the election of the named executive officer, such as salary deferrals under our 401(k) Plan established under Section 401(k) of the Code.
- (2) Amounts represent sign-on bonuses (for Mr. Binder and Dr. Kendall, whose sign-on bonus was paid in two installments) and one-time bonuses due to the elimination of car allowances (Mr. Castagna and Mr. Thomson).
- (3) Restricted stock awards are valued based on the market price of the stock on the grant date. Non-qualified stock options granted during 2019 are valued based on the grant date fair value of the stock on the grant date. Reference Note 12 “Stock award plans” in the notes to our financial statements for the period ended December 31, 2019, included in Part IV, Item 15 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 filed with the SEC on February 25, 2020, which identifies the assumptions made in the valuation of equity awards.
- (4) Non-equity incentive plan compensation is based on individual performance in the achievement of corporate objectives. Performance is compared to these objectives annually.
- (5) Amounts include employer contributions credited under our 401(k) Plan and the incremental cost of perquisites received by the named executive officers. Under the 401(k) Plan, which is open to substantially all of our employees, we make matching contributions based on each participant’s voluntary salary deferrals, subject to the provisions of the 401(k) Plan and limits of the Code.
- (6) Includes \$14,250 in contributions under the 401(k) Plan, \$32,897 in medical benefits, \$395 in airline club reimbursement and \$576 in other taxable income.
- (7) Includes \$16,800 in contributions under the 401(k) Plan, \$14,665 in medical benefits and \$90 in other taxable income.
- (8) Includes \$16,800 in contributions under the 401(k) Plan, \$3,643 in medical benefits, \$5,130 in relocation reimbursements and \$395 in air club reimbursement.
- (9) Includes \$14,241 in contributions under the 401(k) Plan, \$395 in airline club reimbursement and \$576 in other taxable income.
- (10) Includes \$16,800 in contributions under the 401(k) Plan and \$10,538 in medical benefits.

GRANTS OF PLAN-BASED AWARDS

We grant equity awards to our employees, including the named executive officers, under the 2018 Plan. The 2018 Plan is the successor to and a continuation of our 2013 Equity Incentive Plan and our 2004 Equity Incentive Plan (the “Prior Plans”). From and after May 16, 2018, the effective date of the 2018 Plan, no stock awards were granted under the Prior Plans. Any unallocated shares remaining available for grant under the Prior Plans on such date ceased to be available under the Prior Plans at such time and were instead added to the share reserve of the 2018 Plan.

In general, options granted to our employees are nonstatutory stock options that do not qualify as incentive stock options within the meaning of Section 422 of the Code. Options generally expire ten years from date of grant.

The exercise price per share of each option granted to our employees was equal to the fair market value on the date of the grant. The exercise price is payable in cash, shares of our common stock previously owned by the optionee or pursuant to the net exercise of the option.

Our Board of Directors, or a duly authorized committee thereof, has the authority to administer the 2018 Plan. Our Board of Directors has delegated concurrent authority to administer the 2018 Plan to the Compensation Committee, but may, at any time, revert in itself some or all of the power previously delegated to the Compensation Committee. Our Board of Directors or its authorized committee is referred to herein as the “Plan Administrator.”

Stock options vest at the rate specified by the Plan Administrator and may have a term up to a maximum of ten years or, in some cases, five years. Unless the terms of an optionee’s stock option agreement provide otherwise, if an optionee’s service terminates for any reason other than disability, death, retirement or cause, the optionee may generally exercise any vested options for a period of three months following the cessation of service. The option term may be extended in the event that exercise of the stock option following such a termination of service is prohibited by applicable securities laws or our insider trading policy. If an optionee’s service terminates due to disability or death, or an optionee dies within a certain period following cessation of service, the optionee or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. If the cessation of service is due to retirement, the optionee may generally exercise any vested options for a period of 24 months. In the event of a termination for cause, options generally terminate immediately upon the termination of the individual for cause. In no event may an option be exercised beyond the expiration of its term.

Generally, an optionholder may not transfer a stock option other than by will or the laws of descent and distribution or a domestic relations order with the approval of the Plan Administrator or a duly authorized officer. Additionally, an optionholder may, with the approval of the Plan Administrator or a duly authorized officer, designate a beneficiary who may exercise the stock option following the optionholder’s death.

Transactions. In the event of a transaction (as defined in the 2018 Plan and described below), the Board of Directors will have the discretion to take one or more of the following actions with respect to outstanding stock awards (contingent upon the closing or completion of such transaction), unless otherwise provided in the stock award agreement or other written agreement with the participant or unless otherwise provided by the Board of Directors at the time of grant:

- arrange for the surviving or acquiring corporation (or its parent company) to assume or continue the award or to substitute a similar stock award for the award (including an award to acquire the same consideration paid to our stockholders pursuant to the transaction);
- arrange for the assignment of any reacquisition or repurchase rights held by us with respect to the stock award to the surviving or acquiring corporation (or its parent company);
- accelerate the vesting (and, if applicable, the exercisability) of the stock award and provide for its termination prior to the effective time of the transaction;
- arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us with respect to the award;
- cancel or arrange for the cancellation of the stock award, to the extent not vested or exercised prior to

- the effective time of the transaction, in exchange for such cash consideration, if any, as the Board of Directors may consider appropriate; and
- make a payment, in such form as may be determined by the Board of Directors, equal to the excess, if any, of (A) the value of the property the participant would have received upon the exercise of the stock award immediately prior to the effective time of the transaction, over (B) any exercise price payable in connection with such exercise.

The Board of Directors is not obligated to treat all stock awards or portions of stock awards in the same manner. The Board of Directors may take different actions with respect to the vested and unvested portions of a stock award.

For purposes of the 2018 Plan, a transaction will be deemed to occur in the event of a corporate transaction or a change in control. A corporate transaction generally means the consummation of (i) a sale or other disposition of all or substantially all of our consolidated assets, (ii) a sale or other disposition of at least 90% of our outstanding securities, (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation, or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

A change of control generally means (i) the acquisition by a person or entity of more than 50% of our combined voting power other than by merger, consolidation or similar transaction; (ii) a consummated merger, consolidation or similar transaction immediately after which our stockholders cease to own more than 50% of the combined voting power of the surviving entity; (iii) a consummated sale, lease or exclusive license or other disposition of all or substantially of our consolidated assets; (iv) the complete dissolution or liquidation of the Company; or (v) when a majority of the board of directors becomes comprised of individuals whose nomination, appointment, or election was not approved by a majority of the board members or their approved successors.

Change in Control. Under the 2018 Plan, a stock award may be subject to additional acceleration of vesting and exercisability upon or after a change in control, as may be provided in the stock award agreement or other written agreement with the participant. In the absence of such provision, no such acceleration will occur.

The following table summarizes the equity awards granted to the named executive officers during the fiscal year ended December 31, 2019.

Grants of Plan-Based Awards in Fiscal 2019

Name	Grant Date	All Other Stock Awards: Number of Shares of Stock or Units (#) ⁽¹⁾	All Other Option Awards: Number of Securities Underlying Options (#) ⁽²⁾	Exercise or Base Price of Options Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards (\$)
Michael E. Castagna, PharmD	5/14/2019	—	584,000	1.32	617,568
	2/20/2019	60,403	—	1.49	90,000
Steven B. Binder	5/14/2019	—	234,000	1.32	247,450
	2/20/2019	40,268	—	1.49	59,999
David M. Kendall, M.D.	5/14/2019	—	234,000	1.32	247,450
	2/20/2019	37,026	—	1.49	55,169
James P. McCauley, Jr.	5/14/2019	—	234,000	1.32	247,450
	2/20/2019	40,268	—	1.49	59,999
David B. Thomson, Ph.D., J.D.	5/14/2019	—	234,000	1.32	247,450
	2/20/2019	43,616	—	1.49	64,988

(1) Each restricted stock unit represents a contingent right to receive one share of common stock. These grants departed from the normal four-year vesting period for time-based awards. These grants were awarded in February 2019 in recognition of achievements in 2018 that were not reflected in the 2018 short-term incentive compensation plan and vested on February 20, 2020.

(2) The shares subject to these options have exercise prices equal to the fair market value of our common stock on the date of grant and vest over a four-year period with a one-year 25% cliff vesting and monthly thereafter over the following three years. These options expire ten years from the date of grant. Vesting ceases should the executive officer no longer provide continuous service to us.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth summary information regarding the outstanding equity awards at December 31, 2019 granted to each of our named executive officers.

Name	Option Awards				Stock Awards			Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)	
Michael E. Castagna, Pharm.D.	61,725 ⁽¹⁾	4,115 ⁽¹⁾	—	4.55	3/14/2026	4,000 ⁽²⁾	5,160	—
	50,000 ⁽³⁾	150,000 ⁽³⁾	—	4.55	5/18/2026	60,403 ⁽⁴⁾	77,920	—
	37,525 ⁽⁵⁾	112,575 ⁽⁵⁾	—	1.42	5/25/2027	—	—	—
	57,750 ⁽⁶⁾	173,250 ⁽⁶⁾	—	1.52	5/29/2027	—	—	—
	123,381 ⁽⁷⁾	67,619 ⁽⁷⁾	—	1.52	5/29/2027	—	—	—
Steven B. Binder	211,375 ⁽⁸⁾	322,625 ⁽⁸⁾	—	1.91	5/16/2028	—	—	—
	—	584,000 ⁽⁹⁾	—	1.32	5/14/2029	—	—	—
	45,025 ⁽¹⁰⁾	135,075 ⁽¹⁰⁾	—	1.47	7/17/2027	40,268 ⁽⁴⁾	51,946	—
	84,708 ⁽⁸⁾	129,292 ⁽⁸⁾	—	1.91	5/16/2028	—	—	—
	—	234,000 ⁽⁹⁾	—	1.32	5/14/2029	—	—	—
David M. Kendall, M.D.	82,546 ⁽¹¹⁾	97,554 ⁽¹¹⁾	—	2.76	2/21/2028	37,026 ⁽⁴⁾	47,764	—
	21,177 ⁽⁸⁾	32,323 ⁽⁸⁾	—	1.91	5/16/2028	—	—	—
	—	234,000 ⁽⁹⁾	—	1.32	5/14/2029	—	—	—
James P. McCauley, Jr.	45,025 ⁽¹⁰⁾	135,075 ⁽¹⁰⁾	—	1.47	7/17/2027	40,268 ⁽⁴⁾	51,946	—
	84,708 ⁽⁸⁾	129,292 ⁽⁸⁾	—	1.91	5/16/2028	—	—	—
	—	234,000 ⁽⁹⁾	—	1.32	5/14/2029	—	—	—
David B. Thomson, Ph.D., J.D.	12,400 ⁽¹²⁾	—	—	29.65	8/19/2020	43,616 ⁽⁴⁾	56,265	—
	12,380 ⁽¹³⁾	—	—	19.00	3/2/2021	—	—	—
	14,320 ⁽¹⁴⁾	—	—	12.05	8/17/2021	—	—	—
	4,000 ⁽¹⁵⁾	—	—	8.45	5/17/2022	—	—	—
	12,000 ⁽¹⁶⁾	—	—	8.45	5/17/2022	—	—	—
	15,000 ⁽¹⁷⁾	—	—	11.60	8/16/2022	—	—	—
	72,000 ⁽¹⁸⁾	—	—	34.25	5/23/2023	—	—	—
	10,000 ⁽¹⁶⁾	—	—	29.45	8/22/2023	—	—	—
	8,680 ⁽²⁰⁾	—	—	35.45	8/20/2024	—	—	—
	14,460 ⁽²¹⁾	—	—	19.55	8/26/2025	—	—	—
	84,121 ⁽²²⁾	3,659 ⁽²²⁾	—	4.60	2/18/2026	—	—	—
	20,000 ⁽³⁾	60,000 ⁽³⁾	—	4.55	5/18/2026	—	—	—
	37,525 ⁽⁵⁾	112,575 ⁽⁵⁾	—	1.42	5/25/2027	—	—	—
84,708 ⁽⁸⁾	129,292 ⁽⁸⁾	—	1.91	5/16/2028	—	—	—	
—	234,000 ⁽⁹⁾	—	1.32	5/14/2029	—	—	—	

- (1) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is March 14, 2016.
- (2) Restricted Stock Unit Award: 25% vest on each year anniversary of the vesting determination date; shares shall fully vest on the fourth year anniversary of the vesting determination date. The vesting determination date is March 14, 2016.
- (3) Performance based non-qualified option grant on May 19, 2016, which shall vest upon the achievement of certain corporate objectives.
- (4) Restricted Stock Unit Award: 100% vest on the one year anniversary of the vesting determination date. The vesting determination date is February 20, 2019.
- (5) Performance based non-qualified option grant on May 25, 2017, which shall vest upon the achievement of certain corporate objectives.
- (6) Performance based non-qualified option grant on May 29, 2017, which shall vest upon the achievement of certain corporate objectives.
- (7) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is May 29, 2017.
- (8) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is May 16, 2018.
- (9) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is May 14, 2019.

- (10) Performance based non-qualified option grant on August 24, 2017, which shall vest upon the achievement of certain corporate objectives.
- (11) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is February 21, 2018.
- (12) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is August 19, 2010.
- (13) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is March 3, 2011.
- (14) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is August 18, 2011.
- (15) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is May 17, 2012.
- (16) Performance based non-qualified option grant on May 17, 2012, which shall vest upon the achievement of certain corporate objectives.
- (17) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is August 16, 2012.
- (18) Performance based non-qualified option grant on May 23, 2013, which shall vest upon the achievement of certain corporate objectives.
- (19) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is August 22, 2013.
- (20) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is August 21, 2014.
- (21) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is August 27, 2015.
- (22) 25% vesting on the anniversary of the vesting determination date and 1/48th per month thereafter; being fully vested on the fourth anniversary of the vesting determination date. The vesting commencement date is February 18, 2016.

OPTION EXERCISES AND STOCK VESTED

The following table contains information relating to the exercise of options and vesting of stock by the named executive officers during the fiscal year ended December 31, 2019.

Name	Option Awards		Stock Awards ⁽¹⁾	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
Michael E. Castagna, PharmD	—	\$ —	4,000	\$ 8,960
Steven B. Binder	—	—	—	—
David M. Kendall, M.D.	—	—	—	—
James P. McCauley	—	—	—	—
David B. Thomson, Ph.D., J.D.	—	—	805	853

(1) Stock awards acquired on vesting represent restricted stock awards that vest annually over a four-year period.

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE OF CONTROL

Estimated Potential Payments

We have entered into a severance agreement with Mr. Thomson, and change of control agreements with each named executive officer. The table below sets forth the estimated current value of payments and benefits to each of the named executive officers upon termination or change of control. The amounts shown assume that the triggering event occurred on December 31, 2019 and do not include other benefits earned during the term of the named executive officer's employment that are available to all salaried employees, such as accrued vacation and benefits paid by insurance providers under life and disability policies.

		Triggering Event	
		Termination (\$)	Change in Control (\$) ⁽⁴⁾
Michael E. Castagna, PharmD	Salary continuation and annual STI consideration	—	1,132,255
	Continuing health and welfare benefits ⁽¹⁾	—	39,158
	Intrinsic value of accelerated unvested stock options ⁽²⁾	—	—
	Total	—	1,171,413
Steven B. Binder	Salary continuation and annual STI consideration	—	819,718
	Continuing health and welfare benefits ⁽¹⁾	—	30,727
	Intrinsic value of accelerated unvested stock options ⁽²⁾	—	—
	Total	—	850,446
David M. Kendall, M.D.	Salary continuation and annual STI consideration	—	827,409
	Continuing health and welfare benefits ⁽¹⁾	—	14,254
	Intrinsic value of accelerated unvested stock options ⁽²⁾	—	—
	Total	—	841,663
James P. McCauley	Salary continuation and annual STI consideration	—	981,295
	Continuing health and welfare benefits ⁽¹⁾	—	27,324
	Intrinsic value of accelerated unvested stock options ⁽²⁾	—	—
	Total	—	1,008,620
David B. Thomson, Ph.D., J.D.	Salary continuation and annual STI consideration	999,346	1,228,481
	Continuing health and welfare benefits ⁽¹⁾	44,487	44,487
	Intrinsic value of accelerated unvested stock options ⁽²⁾	—	—
	Value of extending exercisability term of stock options ⁽³⁾	—	—
	Total	1,043,832	1,272,968

(1) Represents the estimated cost of providing or paying for continuing medical and dental coverage for 18 months. The amounts for medical and dental insurance coverage are based on rates charged to our employees for post-employment coverage provided in accordance with the Consolidated Omnibus Reconciliation Act of 1985, or COBRA.

(2) Per SEC rules, the intrinsic value of accelerated unvested stock options shown in the table above was calculated using the closing price of our common stock of \$1.29 on December 31, 2019. The intrinsic value is the aggregate spread between \$1.29 and the exercise price of the accelerated options, if less than \$1.29. Accelerated options with exercise prices equal or greater than \$1.29 have no intrinsic value. Represents estimated current value of payments and benefits payable upon termination without cause or resignation for good reason following a change of control. The terms of change of control agreements with our named executive officers are detailed under the heading "Change of Control Agreements" below.

(3) The named executive officer also has an extended exercise period ending on the earlier of 18 months following the triggering event or the end of the original term of the option. There is no fair value calculated for this extended exercise period.

(4) Represents estimated current value of payments and benefits payable upon termination without cause or resignation for good reason following a change of control. The terms of change of control agreements with our named executive officers are detailed under the heading "Change of Control Agreements" below.

Executive Severance Agreements

In October 2007, we entered into an executive severance agreement with Mr. Thomson and with other then-active executive officers, none of which are currently employed by the Company. This agreement is for a period of two years and will be automatically renewed for additional one-year periods unless either party gives notice to terminate the agreement at least 90 days prior to the end of its initial term or any subsequent term.

The agreement provides that Mr. Thomson is an “at will” employee and that his employment with us may be terminated at any time by him or by us. Under the agreement, in the event we terminate Mr. Thomson’s employment without cause (as defined below) or he terminates his employment with us for good reason (as defined below), then he is generally entitled to receive the following:

- the portion of his annual base salary earned through the termination date that was not paid prior to his termination, if any;
- any compensation previously deferred by him and any accrued paid time-off to which he is entitled under our policy;
- on the condition he executes and does not revoke a general release and settlement agreement, or release, in favor of us, then he will become entitled to receive:
 - his annual base salary on the date of termination for a period of 18 months following his termination, subject to certain limitations;
 - an amount equal to the average annual bonus received by him for the three years prior to his termination (or the prior period up to three years during which he was one of our executive officers and received a bonus);
 - in the event he met the performance criteria for earning an annual bonus prior to his termination, a portion of the annual bonus earned for the year based on the number of days worked during the year;
 - in the event that he did not meet the performance criteria for earning an annual bonus prior to his termination, but the Board determines that all such criteria could have been satisfied if he remained employed for the full fiscal year, then a portion of his average annual bonus for the three years prior to his termination, based on the number of days worked during the year; and
 - health insurance and, under certain circumstances, life, disability and other insurance benefits for a period expiring on the earlier of 18 months following his termination or until he qualifies for related benefits from another employer.

In addition, the executive severance agreement provides that, on the condition that Mr. Thomson executes and does not revoke a release, each vested stock option held by him on the date of termination will be exercisable for a period ending on the earlier of 18 months following that date or the end of the original term of the option.

Under his agreement, Mr. Thomson may be terminated for cause if he, among other things:

- refuses to carry out or satisfactorily perform any of his lawful duties or any lawful instruction of our Board of Directors or senior management;
- violates any local, state or federal law involving the commission of a crime other than a minor traffic offense;
- is grossly negligent, engages in willful misconduct or breaches a fiduciary obligation to us;
- engages in any act that materially compromises his reputation or ability to represent us with investors, customers or the public; or
- reaches a mandatory retirement age established by us.

Under Mr. Thomson’s agreement, good reason includes, among other things:

- a material reduction of his annual base salary to a level below his salary as of October 10, 2007;

- a material diminution in his position, authority, duties or responsibilities with us, subject to certain limitations;
- an order by us to relocate him to an office located more than 50 miles from his current residence and
- worksite;
- any non-renewal of the executive severance agreement by us, on the condition that he may terminate the agreement for good reason only during the 30-day period after he receives notice from us that we intend to terminate the agreement; and
- any material violation of the executive severance agreement by us.

Under Mr. Thomson's agreement, he must inform us if he intends to terminate his agreement for good reason. We have 30 days from the date we receive notice of his intent to terminate the agreement for good reason to cure the default.

Change of Control Agreements

Starting in April 2017, we entered into change of control agreements with each named executive officer. Each agreement is for a period of two years and will be automatically renewed for additional one-year periods unless either party gives notice to terminate the agreement at least 90 days prior to the end of its initial term or any subsequent term.

Under the agreements, a change of control will be deemed to occur upon:

- any transaction that results in a person or group acquiring beneficial ownership of 50% or more of our voting stock, other than us or one of our employee benefit plans;
- any merger, consolidation or reorganization of us in which our stockholders immediately prior to the transaction hold less than 50% of the voting power of the surviving entity following the transaction, subject to certain limitations;
- any transaction in which we sell all or substantially all of our assets, subject to certain limitations;
- our liquidation; or
- any reorganization of our Board of Directors in which our incumbent directors (as defined in the agreements) cease for any reason to constitute a majority of the members of our Board.

The agreements provide that in the event of a change of control, the employee is generally entitled to maintain the same position, authority and responsibilities held before the change of control, as well as the following compensation and benefits during the period ending on the earlier of two years following the change of control or the termination of his or her employment with us:

- his or her annual base salary in an amount equal or greater to his or her annual salary as of the date the change of control occurs;
- an annual bonus in an amount equal to the average annual bonus received by him or her for the three years prior to his or her termination (or the prior period up to three years during which he was one of our executive officers and received a bonus);
- medical, dental and other insurance, and any other benefits we may offer to our executives; and prompt reimbursement for all reasonable employment expenses incurred by him or her in accordance with our policies and procedures.

Under the change of control agreements, we may terminate an executive with or without cause (as defined below) and the executive may terminate his or her employment with us for good reason (as defined below) or any reason at any time during the two-year period following a change of control. In the event we terminate an executive without cause or an executive terminates his or her employment with us for good reason, he or she is generally entitled to receive the following:

- the portion of his or her annual base salary earned through the termination date that was not paid prior to his termination, if any;

- any compensation previously deferred by the employee and any accrued paid time-off that the employee is entitled to under our policy;
- on the condition the employee executes and does not revoke a release, then the employee will become entitled to received:
- continuation of the employee's annual base salary on the date of termination for a period of 18 months following his or her termination, subject to certain limitations;
- an amount equal to 150% of his or her average annual bonus received by the employee for the three years prior to his or her termination (or the prior period up to three years during which the employee was one of our executive officers and received a bonus);
- in the event the employee met the performance criteria for earning an annual bonus prior to his or her termination, a portion of the annual bonus earned for the year based on the number of days worked during the year;
- in the event that the employee did not meet the performance criteria for earning an annual bonus prior to his or her termination, but the Board determines that all such criteria could have been satisfied if the employee remained employed for the full fiscal year, then a portion of his or her average annual bonus for the three years prior to his or her termination, based on the number of days worked during the year; and
- on the condition the employee executes a release, health insurance and, under certain circumstances, life, disability and other insurance benefits for a period expiring on the earlier of 18 months following his or her termination or until he qualifies for related benefits from another employer.

In addition, the agreements provide that, on the condition the employee executes and does not revoke a release, each equity award held by him or her as of the termination date will become fully vested and exercisable at any point during the term of the option, subject to certain limitations.

Under the agreements, in the event we terminate an employee with cause or an employee terminates his or her employment with us without good reason, his or her agreement will terminate without any further obligation to either party.

The change of control agreements provide that an employee may be terminated for cause if he or she, among other things:

- refuses to carry out or satisfactorily perform any of his or her lawful duties or any lawful instruction of our Board of Directors or senior management;
- violates any local, state or federal law involving the commission of a crime other than a minor traffic offense;
- is grossly negligent, engages in willful misconduct or breaches a fiduciary obligation to us;
- engages in any act that materially compromises his reputation or ability to represent us with investors, customers or the public; or
- reaches a mandatory retirement age established by us before a change of control occurs.

Under the agreements, good reason includes, among other things:

- a material diminution in the employee's position, authority, duties or responsibilities with us;
- an order by us to relocate the employee to an office located more than 50 miles from the employee's current residence and worksite;
- any non-renewal of the change of control agreement by us, on the condition that the employee may terminate the agreement for good reason only during the 30-day period after he receives notice from us that we intend to terminate the agreement; and
- any material violation of the change of control agreement by us.

Under the change of control agreements, an employee must inform us if he or she intends to terminate his or her agreement for good reason. We have 30 days from the date we receive notice of the employee's intent to terminate the agreement for good reason to cure the default.

The executive severance agreements and the change of control agreements with Mr. Thomson provide that in the event such executive becomes entitled to benefits under both agreements, compensation payments and other benefits will be coordinated to ensure the executive is entitled to receive the benefits described above without duplicating coverage.

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 about the relationship of the annual total compensation of our median employee and the annual total compensation of Mr. Michael Castagna, our Chief Executive Officer.

In calculating the annual total compensation, we used the actual base salary in 2019, the actual cash short-term incentive compensation paid in 2020 for performance in 2019, the value of the equity awards received in 2019, and the value of all other compensation, contributions under the 401(k) plan and medical benefits. We identified the median employee by examining the 2019 total compensation for all individuals, excluding our CEO, who were employed by us on December 31, 2019. We included all employees, as all our employees are US-based.

The annual total compensation for 2019 was \$148,059 for our median employee and \$1,551,765 for our CEO. The resulting ratio of our CEO's pay to the pay of our median employee for 2019 is approximately 10 to 1.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table provides certain information with respect to all of our equity compensation plans in effect as of December 31, 2019.

Equity Compensation Plan Information

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (#)(a)</u>	<u>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights \$(b)</u>	<u>Number of Securities Remaining Available for Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a) #)(c)</u>
Equity compensation plans approved by security holders	15,187,854	5.75	6,956,423 ⁽¹⁾
Equity compensation plans not approved by security holders ⁽²⁾	—	—	—

(1) Includes 4,710,565 shares available for issuance under the 2018 Plan and 2,245,858 shares available for purchase under our Employee Stock Purchase Plan.

(2) As of December 31, 2019, we did not have any equity compensation plans that were not approved by our security holders.

COMPENSATION COMMITTEE REPORT

The material in this report is not “soliciting material,” is not deemed “filed” with the SEC and shall not be incorporated by reference into any filing of MannKind under the Securities Act or the Exchange Act, except to the extent MannKind specifically incorporates this report by reference.

The Compensation Committee has reviewed and discussed with management the Compensation Discussion and Analysis contained in this proxy statement. Based on this review and discussion, the Compensation Committee has recommended to our Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement and incorporated into our Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

Compensation Committee

Kent Kresa, Compensation Committee Chairman

Michael A. Friedman, Compensation Committee Member

James S. Shannon, Compensation Committee Member

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The material in this report is not “soliciting material,” is not deemed “filed” with the SEC and shall not be incorporated by reference by any general statement incorporating by reference this proxy statement into any filing of MannKind under the Securities Act or the Exchange Act, except to the extent MannKind specifically incorporates this report by reference.

The Audit Committee oversees the Company’s financial reporting process on behalf of the Board of Directors. The Company’s management has the primary responsibility for the financial statements, for maintaining effective internal control over financial reporting, and for assessing the effectiveness of internal control over financial reporting. In fulfilling its oversight responsibilities, the Audit Committee reviewed and discussed the audited financial statements in the Annual Report with Company management, including a discussion on the quality, not just the acceptability, of the accounting principles; the reasonableness of significant judgments; and the clarity of the disclosures within the financial statements.

The Audit Committee recognizes the importance of maintaining the independence of the Company’s independent auditor, both in fact and appearance. In fulfilling its oversight responsibility as to the audit process, the Audit Committee obtained from Deloitte & Touche LLP the written disclosures and the letter describing all relationships between MannKind and its independent auditors that might bear on the auditors’ independence consistent with applicable requirements of the Public Company Accounting Oversight Board (“PCAOB”) Rule 3526, *Communication with Audit Committees Concerning Independence*. The Audit Committee has discussed Deloitte’s independence with Company management and Deloitte, and considered the compatibility of non-audit services with the independent auditor’s independence.

The Audit Committee Charter provides that one duty of the Audit Committee is to determine whether to retain or to terminate MannKind’s existing auditors or to appoint and engage new auditors for the ensuing year. In performing that duty, the Audit Committee evaluated the performance of Deloitte in performing the examination of MannKind’s financial statements for the fiscal year ended December 31, 2019, considered the auditors’ technical expertise and knowledge of the Company’s operation and industry, and considered auditors’ independence, objectivity, and professional skepticism. Based on this evaluation, the Audit Committee determined to engage Deloitte as MannKind’s independent auditors for the fiscal year ending December 31, 2020.

The Audit Committee discussed with Deloitte the matters required to be discussed by the applicable Public Company Accounting Oversight Board (“PCAOB”) standards. In addition, with and without management present, the Audit Committee discussed and reviewed MannKind’s financial statements and the results of Deloitte’s audit of MannKind’s financial statements and internal control. Based upon the Audit Committee’s discussion with management and Deloitte and the Audit Committee’s review of MannKind’s financial statements, the representations of MannKind’s management and the independent auditors’ report to the Audit Committee, the Audit Committee recommended to the Board of Directors that MannKind include the audited financial statements in its Annual Report on Form 10-K for the fiscal year ended December 31, 2019, for filing with the SEC.

Audit Committee

Ronald J. Consiglio, Audit Committee Chair
Jennifer Grancio, Audit Committee Member
Anthony Hooper, Audit Committee Member
Christine Mundkur, Audit Committee Member
Henry L. Nordhoff, Audit Committee Member

RELATED-PERSON TRANSACTIONS POLICY AND PROCEDURES

The Company's Related-Person Transactions Policy sets forth the policies and procedures regarding the identification, review, consideration and approval or ratification of "related-persons transactions." For purposes of the Company's policy only, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which the Company and any "related person" are, were or will be participants involving an amount that exceeds \$120,000.

Transactions involving compensation for services provided to the Company as an employee, consultant or director are not covered by this policy. A related person is any executive officer, director, or more than 5% beneficial stockholder of the Company, including any of their immediate family members, and any entity owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to the Audit Committee (or, where Audit Committee approval would be inappropriate, to another independent body of the Board) for consideration and approval or ratification. The presentation must include a description of, among other things, the material facts, the interests, direct and indirect, of the related persons, the benefits to the Company of the transaction and whether any alternative transactions were available. To identify related-person transactions in advance, the Company relies on information supplied by its executive officers, directors and significant stockholders. In considering related-person transactions, the Audit Committee takes into account the relevant available facts and circumstances including, but not limited to (a) the risks, costs and benefits to the Company, (b) the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated, (c) the terms of the transaction, (d) the availability of other sources for comparable services or products and (e) the terms available to or from, as the case may be, unrelated third parties or to or from employees generally. In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval. The policy requires that, in determining whether to approve, ratify or reject a related-person transaction, the Audit Committee consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, the best interests of the Company and its stockholders, as the Audit Committee determines in the good faith exercise of its discretion.

TRANSACTIONS WITH THE MANN GROUP

The Company is the borrower under a loan arrangement with The Mann Group (the "Loan Arrangement"), which consists of a convertible note and a non-convertible note. At the time of Alfred Mann's death in February 2016, he beneficially owned approximately 36% of the outstanding shares of the Company's common stock, including those held by The Mann Group. Over the three years following Mr. Mann's death, the trustees of The Mann Group disposed of a substantial portion of these holdings. The Company has been informed that The Mann Group currently holds approximately 9.3 million shares as of December 31, 2019, which represents less than 5% of the Company's outstanding common stock. The Company reserved an additional 14,000,000 shares for issuance to The Mann Group upon the conversion of outstanding amounts under the Mann Group convertible note. The Mann Group convertible note contains a provision that limits conversion to the extent that doing so would result in The Mann Group beneficially owning in excess of 9.99% (19.99% upon 65 days' written notice from The Mann Group) of the outstanding shares of the Company's common stock.

The Mann Group convertible note and Mann Group non-convertible note each accrue interest at the rate of 7.00% per year on the principal amount, payable quarterly in arrears on the first day of each calendar quarter beginning October 1, 2019.

The Mann Group convertible note will mature on November 3, 2024. The principal and any accrued and unpaid interest under the Mann Group convertible note may be converted, at the option of the Mann Group, at any time on or prior to the close of business on the business day immediately preceding the stated maturity date, into shares of the Company's common stock at a conversion rate of 400 shares per \$1,000 of principal and/or accrued and unpaid interest, which is equal to a conversion price of \$2.50 per share. The conversion rate will be subject to adjustment under certain circumstances described in the Mann Group convertible note. Interest on the Mann Group convertible note will be payable in kind by adding the amount thereof to the principal amount;

provided that with respect to interest accruing from and after January 1, 2021, the Company may, at its option, elect to pay any such interest on any interest payment date, if certain conditions are met, in shares of the Company's common stock at a price per share equal to the last reported sale price on the trading day immediately prior to the payment date.

The Mann Group non-convertible note will mature on the earlier of (i) November 3, 2024 or (ii) the 90th day after the repayment in full, and termination and discharge of all obligations (other than contingent indemnity obligations) under the MidCap Credit Facility. Interest on the Mann Group nonconvertible note will be payable in kind by adding the amount thereof to the principal amount; provided that the Company may, at its option, elect to pay any such interest on any interest payment date, if certain conditions are met, in shares of the Company's common stock at a price per share equal to the last reported sale price on the trading day immediately prior to the interest payment date.

Since January 1, 2019, the largest outstanding principal amount under the Loan Arrangement was \$71.5 million. As of December 31, 2019, the outstanding principal amount under the Loan Arrangement was \$70.1 million.

During 2019, interest of \$4.6 million was accrued under the Loan Arrangement.

For additional details regarding the terms of the Loan Arrangement, please refer to Note 6 to our consolidated financial statements contained in our Annual Report on Form 10-K for the year ended December 31, 2019, as filed with the SEC on February 25, 2020.

HOUSEHOLDING OF PROXY MATERIALS

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

This year, a number of brokers with account holders who are MannKind stockholders will be “householding” our proxy materials. A single Notice of Internet Availability of Proxy Materials 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 broker that they 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 Notice of Internet Availability of Proxy Materials, please notify your broker, direct your written request to MannKind Corporation, Investor Relations, 30930 Russell Ranch Road, Suite 300, Westlake Village, California 91362 or contact David Thomson at (818) 661-5000. Stockholders who currently receive multiple copies of the Notices of Internet Availability of Proxy Materials at their address and would like to request “householding” of their communications should contact their broker.

ANNUAL REPORT

A COPY OF OUR ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2019, FILED WITH THE SEC ON FEBRUARY 25, 2020, IS AVAILABLE WITHOUT CHARGE UPON WRITTEN REQUEST TO: MANNKIND CORPORATION, INVESTOR RELATIONS, 30930 RUSSELL RANCH ROAD, SUITE 300, WESTLAKE VILLAGE, CALIFORNIA 91362.

OTHER MATTERS

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

By Order of the Board of Directors



David B. Thomson
Executive Vice President, General Counsel and Secretary

Westlake Village, California
April , 2020

Appendix A

**CERTIFICATE OF AMENDMENT OF
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
MANNKIND CORPORATION**

MANNKIND CORPORATION, a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "**Corporation**"), does hereby certify:

FIRST: The original name of the Corporation was Pharmaceutical Discovery Corporation and the date of filing of the Corporation's original Certificate of Incorporation with the Secretary of State of the State of Delaware was February 14, 1991.

SECOND: The Board of Directors of the Corporation (the "**Board**"), acting in accordance with the provisions of Sections 141 and 242 of the General Corporation Law of the State of Delaware (the "**DGCL**"), adopted resolutions amending its Amended and Restated Certificate of Incorporation, as amended (the "**Restated Certificate**"), as follows:

The first paragraph of Paragraph A of Article IV of the Restated Certificate is hereby amended and restated to read in its entirety as follows:

"**A.** This Corporation is authorized to issue two classes of stock to be designated, respectively, "**Common Stock**" and "**Preferred Stock**." The total number of shares which the Corporation is authorized to issue is four hundred ten million (410,000,000) shares. Four hundred million (400,000,000) shares shall be Common Stock, each having a par value of one cent (\$.01). Ten million (10,000,000) shares shall be Preferred Stock, each having a par value of one cent (\$.01)."

THIRD: This Certificate of Amendment has been duly adopted and approved by the stockholders of the Corporation in accordance with Sections 211 and 242 of the DGCL.

FOURTH: This Certificate of Amendment shall become effective upon filing with the Secretary of State of the State of Delaware.

IN WITNESS WHEREOF, MannKind Corporation has caused this Certificate of Amendment to be signed by its Corporate Vice President, General Counsel and Secretary on _____, 2020.

MANNKIND CORPORATION

By: _____

David Thomson
Corporate Vice President,
General Counsel and Secretary

Appendix B

MANNKIND CORPORATION

2018 EQUITY INCENTIVE PLAN

ADOPTED BY THE BOARD OF DIRECTORS: FEBRUARY 21, 2018

APPROVED BY THE STOCKHOLDERS: MAY 16, 2018

AMENDED BY THE BOARD OF DIRECTORS: MARCH 23, 2020

AMENDMENT APPROVED BY THE STOCKHOLDERS: [MAY 21, 2020]

1. GENERAL.

(a) **Successor to and Continuation of Prior Plans.** The Plan is intended as the successor to and continuation of the MannKind Corporation 2013 Equity Incentive Plan (the “**2013 Plan**”) and the MannKind Corporation 2004 Equity Incentive Plan (the “**2004 Plan**”, and together with the 2013 Plan, the “**Prior Plans**”). Following the Effective Date, no additional stock awards may be granted under the Prior Plans. Any unallocated shares remaining available for grant under the Prior Plans as of 12:01 a.m., Pacific Time on the Effective Date (the “**Prior Plans’ Available Reserve**”) will cease to be available under the such Prior Plans at such time and will be added to the Share Reserve (as further described in Section 3(a) below) and be then immediately available for grant and issuance pursuant to Stock Awards granted under the Plan. In addition, from and after 12:01 a.m., Pacific Time on the Effective Date, all outstanding stock awards granted under the Prior Plans will remain subject to the terms of such Prior Plans, as applicable; *provided, however*, that any shares subject to outstanding stock awards granted under the Prior Plans that (i) expire or terminate for any reason prior to exercise or settlement, (ii) are forfeited, cancelled or otherwise returned to the Company because of the failure to meet a contingency or condition required for the vesting of such shares, or (iii) other than with respect to outstanding options and stock appreciation rights granted under the Prior Plans, with respect to which the exercise or strike price is at least one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the option or stock appreciation right on the date of grant (the “**Prior Plans’ Appreciation Awards**”), are reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with a stock award (collectively, the “**Prior Plans’ Returning Shares**”) will immediately be added to the Share Reserve (as further described in Section 3(a) below) as and when such shares become Prior Plans’ Returning Shares and become available for issuance pursuant to Awards granted hereunder. All Stock Awards granted on or after 12:01 a.m., Pacific Time on the Effective Date will be subject to the terms of this Plan.

(b) **Eligible Award Recipients.** Employees, Directors and Consultants are eligible to receive Stock Awards.

(c) **Available Stock Awards.** The Plan provides for the grant of the following types of Stock Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights, (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards, (vi) Performance Stock Awards, and (vii) Other Stock Awards.

(d) **Purpose.** The Plan, through the granting of Stock Awards, is intended to help the Company and any Affiliate secure and retain the services of eligible award recipients, provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and provide a means by which the eligible recipients may benefit from increases in value of the Common Stock.

2. ADMINISTRATION.

(a) **Administration by Board.** The Board will administer the Plan. The Board may delegate administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) **Powers of Board.** The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine (A) who will be granted Stock Awards; (B) when and how each Stock Award will be granted; (C) what type of Stock Award will be granted; (D) the provisions of each Stock Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Stock Award; (E) the number of shares of Common Stock subject to, or the cash value of, a Stock Award; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Stock Awards. The Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it will deem necessary or expedient to make the Plan or Stock Award fully effective.

(iii) To settle all controversies regarding the Plan and Stock Awards granted under it.

(iv) To accelerate, in whole or in part, the time at which a Stock Award may be exercised or vest (or the time at which cash or shares of Common Stock may be issued in settlement thereof).

(v) To suspend or terminate the Plan at any time. Except as otherwise provided in the Plan or a Stock Award Agreement, suspension or termination of the Plan will not materially impair a Participant's rights under his or her then-outstanding Stock Award without his or her written consent except as provided in subsection (viii) below.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or to make the Plan or Stock Awards granted under the Plan compliant with the requirements for Incentive Stock Options or exempt from or compliant with the requirements for nonqualified deferred compensation under Section 409A of the Code, subject to the limitations, if any, of applicable law. However, if required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek stockholder approval of any amendment of the Plan that (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Stock Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan, (D) materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, or (E) materially expands the types of Stock Awards available for issuance under the Plan. Except as provided in the Plan (including Section 2(b)(viii)) or a Stock Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Stock Award without the Participant's written consent.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of (A) Section 422 of the Code regarding incentive stock options or (B) Rule 16b-3.

(viii) To approve forms of Stock Award Agreements for use under the Plan and to amend the terms of any one or more Stock Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Stock Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided, however*, that a Participant's rights under any Stock Award will not be impaired by any such amendment unless (A) the Company requests the consent of the affected Participant, and (B) such Participant consents in writing. Notwithstanding the foregoing, (1) a Participant's rights will not be deemed to have been impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights, and (2) subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Stock Awards without the affected Participant's consent (A) to maintain the qualified status of the Stock Award as an Incentive Stock Option under Section 422 of the Code; (B) to change the terms of an Incentive Stock Option, if such change results in impairment of the Stock Award solely because it impairs the qualified status of the Stock Award as an Incentive Stock Option under Section 422 of the Code; (C) to clarify the manner of exemption from, or to bring the Stock Award into compliance with, Section 409A of the Code; or (D) to comply with other applicable laws or listing requirements.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Stock Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval will not be necessary for immaterial modifications to the Plan or any Stock Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction).

(c) **Delegation to Committee.**

(i) **General.** The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee, as applicable). Any delegation of administrative powers will be reflected in resolutions, not inconsistent with the provisions of the Plan, adopted from time to time by the Board or Committee (as applicable). The Committee may, at any time, abolish the subcommittee and/or revert in the Committee any powers delegated to the subcommittee. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revert in the Board some or all of the powers previously delegated.

(ii) **Rule 16b-3 Compliance.** The Committee may consist solely of two or more Non-Employee Directors, in accordance with Rule 16b-3.

(d) **Delegation to an Officer.** The Board may delegate to one or more Officers the authority to do one or both of the following (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by applicable law, other Stock Awards) and, to the extent permitted by applicable law, the terms of such Stock Awards, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Employees; *provided, however,* that the Board resolutions regarding such delegation will specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Any such Stock Awards will be granted on the form of Stock Award Agreement most recently approved for use by the Committee or the Board, unless otherwise provided in the resolutions approving the delegation authority. The Board may not delegate authority to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) to determine the Fair Market Value pursuant to Section 13(t)(iii) below.

(e) **Effect of Board's Decision.** All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

(f) **Repricing; Cancellation and Re-Grant of Stock Awards.** Neither the Board nor any Committee will have the authority to (i) reduce the exercise, purchase or strike price of any outstanding Option or SAR under the Plan, or (ii) cancel any outstanding Option or SAR that has an exercise price or strike price greater than the then-current Fair Market Value of the Common Stock in exchange for cash or other Stock Awards under the Plan, unless the stockholders of the Company have approved such an action within 12 months prior to such an event.

(g) **Dividends and Dividend Equivalents.** Dividends or dividend equivalents may be paid or credited, as applicable, with respect to any shares of Common Stock subject to a Stock Award, as determined by the Board and contained in the applicable Stock Award Agreement; *provided, however,* that (i) no dividends or dividend equivalents may be paid with respect to any such shares before the date such shares have vested under the terms of such Stock Award Agreement, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of such Stock Award Agreement (including, but not limited to, any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to the Company on the date, if any, such shares are forfeited to or repurchased by the Company due to a failure to meet any vesting conditions under the terms of such Stock Award Agreement.

3. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve.

(i) Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date will not exceed (A) 25,729,678 shares (which number is the sum of (i) the number of shares (1,229,678) subject to the Prior Plans' Available Reserve, (ii) an additional 12,000,000 shares approved by the shareholders in 2018, and (iii) an additional 12,500,000 shares approved by the shareholders in 2020), plus (B) the Prior Plans' Returning Shares, if any, which become available for grant under this Plan from time to time (such aggregate number of shares described in (A) and (B) above, the "**Share Reserve**").

(ii) For clarity, the Share Reserve in this Section 3(a) is a limitation on the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3(a) does not limit the granting of Stock Awards except as provided in Section 7(a). Shares may be issued in connection with a merger or acquisition as permitted by NASDAQ Listing Rule 5635(c) or, if applicable, NYSE Listed Company Manual Section 303A.08, AMEX Company Guide Section 711 or other applicable rule, and such issuance will not reduce the number of shares available for issuance under the Plan.

(iii) Subject to Section 3(b), the number of shares of Common Stock available for issuance under the Plan will be reduced by: (A) one share for each share of Common Stock issued pursuant to an Option or SAR with respect to which the exercise or strike price is at least 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date of grant; and (B) one and one tenths (1.1) shares for each share of Common Stock issued pursuant to a Full Value Award.

(b) Reversion of Shares to the Share Reserve.

(i) **Shares Available For Subsequent Issuance.** If (A) any shares of Common Stock subject to a Stock Award are not issued because such Stock Award or any portion thereof expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or is settled in cash (*i.e.*, the Participant receives cash rather than stock), (B) any shares of Common Stock issued pursuant to a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required for the vesting of such shares, or (C) with respect to a Full Value Award, any shares of Common Stock are reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with such Full Value Award, such shares will again become available for issuance under the Plan (collectively, the "**2018 Plan Returning Shares**"). For each (1) 2018 Plan Returning Share subject to a Full Value Award or (2) Prior Plans' Returning Share subject to a stock award other than a Prior Plans' Appreciation Award, the number of shares of Common Stock available for issuance under the Plan will increase by one and one tenths (1.1) shares.

(ii) **Shares Not Available For Subsequent Issuance.** Any shares of Common Stock reacquired or withheld (or not issued) by the Company to satisfy the exercise or purchase price of a Stock Award will no longer be available for issuance under the Plan, including any shares subject to a Stock Award that are not delivered to a Participant because such Stock Award is exercised through a reduction of shares subject to such Stock Award (*i.e.*, "net exercised"). In addition, any shares reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with an Option or Stock Appreciation Right or a Prior Plans' Appreciation Award, or any shares repurchased by the Company on the open market with the proceeds of the exercise or strike price of an Option or Stock Appreciation Right or a Prior Plans' Appreciation Award will no longer be available for issuance under the Plan.

(c) **Incentive Stock Option Limit.** Subject to the Share Reserve and Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options will be 9,000,000 shares of Common Stock.

(d) **Source of Shares.** The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. ELIGIBILITY.

(a) **Eligibility for Specific Stock Awards.** Incentive Stock Options may be granted only to employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in

Sections 424(e) and 424(f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; provided, however, that Stock Awards may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any “parent” of the Company, as such term is defined in Rule 405, unless (i) the stock underlying such Stock Awards is treated as “service recipient stock” under Section 409A of the Code (for example, because the Stock Awards are granted pursuant to a corporate transaction such as a spin off transaction) or (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from or alternatively comply with the distribution requirements of Section 409A of the Code.

(b) Ten Percent Stockholders. A Ten Percent Stockholder will not be granted an Incentive Stock Option unless the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five years from the date of grant.

(c) Limitation on Grants to Non-Employee Directors. The maximum number of shares of Common Stock subject to Stock Awards granted under the Plan or otherwise during any one calendar year to any Non-Employee Director, taken together with any cash fees paid by the Company to such Non-Employee Director during such calendar year for service on the Board, will not exceed \$500,000 in total value (calculating the value of any such Stock Awards based on the grant date fair value of such Stock Awards for financial reporting purposes).

5. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR will be in such form and will contain such terms and conditions as the Board deems appropriate. All Options will be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, or if an Option is designated as an Incentive Stock Option but some portion or all of the Option fails to qualify as an Incentive Stock Option under the applicable rules, then the Option (or portion thereof) will be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided, however*, that each Stock Award Agreement will conform to (through incorporation of provisions hereof by reference in the applicable Stock Award Agreement or otherwise) the substance of each of the following provisions:

(a) Term. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of ten years from the date of its grant or such shorter period specified in the Stock Award Agreement.

(b) Exercise Price. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Stock Award is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value of the Common Stock subject to the Stock Award if such Stock Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Section 409A of the Code and, if applicable, Section 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

(c) Purchase Price for Options. The purchase price of Common Stock acquired pursuant to the exercise of an Option may be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board will have the authority to grant Options that do not permit all of the following methods of payment (or that otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to use a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the Common Stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if an Option is a Nonstatutory Stock Option, by a “net exercise” arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company will accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the “net exercise,” (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations; or

(v) in any other form of legal consideration that may be acceptable to the Board and specified in the applicable Stock Award Agreement.

(d) Exercise and Payment of a SAR. To exercise any outstanding SAR, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Award Agreement evidencing such SAR. The appreciation distribution payable on the exercise of a SAR will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the SAR) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such SAR, and with respect to which the Participant is exercising the SAR on such date, over (B) the aggregate strike price of the number of Common Stock equivalents with respect to which the Participant is exercising the SAR on such date. The appreciation distribution may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Award Agreement evidencing such SAR.

(e) Transferability of Options and SARs. The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board will determine. In the absence of such a determination by the Board to the contrary, the restrictions set forth in this Section 5(e) on the transferability of Options and SARs will apply. Notwithstanding the foregoing or anything in the Plan or a Stock Award Agreement to the contrary, no Option or SAR may be transferred to any financial institution without prior stockholder approval.

(i) Restrictions on Transfer. An Option or SAR will not be transferable except by will or by the laws of descent and distribution (and pursuant to Sections 5(e)(ii) and 5(e)(iii) below) and will be exercisable during the lifetime of the Participant only by the Participant. Subject to the foregoing paragraph, the Board may permit transfer of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws. Except as explicitly provided in the Plan, neither an Option nor a SAR may be transferred for consideration.

(ii) Domestic Relations Orders. Subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulations Section 1.421-1(b)(2). If an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) Beneficiary Designation. Subject to the approval of the Board or a duly authorized Officer, a Participant may, by delivering written notice to the Company, in a form approved by the Company (or the designated broker), designate a third party who, upon the death of the Participant, will thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, upon the death of the Participant, the executor or administrator of the Participant’s estate will be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. However, the Company may prohibit designation of a beneficiary at any time, including due to any conclusion by the Company that such designation would be inconsistent with the provisions of applicable laws.

(f) Vesting Generally. The total number of shares of Common Stock subject to an Option or SAR may vest and become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which

may be based on the satisfaction of Performance Goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

(g) Termination of Continuous Service. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company or an Affiliate, if a Participant's Continuous Service terminates (other than for Cause and other than upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date three months following such termination of Continuous Service (or such longer or shorter period specified in the Stock Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR (as applicable) within the applicable time frame, the Option or SAR (as applicable) will terminate.

(h) Extension of Termination Date. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company or an Affiliate, if the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause and other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR will terminate on the earlier of (i) the expiration of a total period of time (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement. In addition, unless otherwise provided in a Participant's Stock Award Agreement, if the sale of any Common Stock received upon exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR will terminate on the earlier of (i) the expiration of a period of time (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement.

(i) Disability of Participant. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company or an Affiliate, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date 12 months following such termination of Continuous Service (or such longer or shorter period specified in the Stock Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR (as applicable) within the applicable time frame, the Option or SAR (as applicable) will terminate.

(j) Death of Participant. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company or an Affiliate, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Stock Award Agreement for exercisability after the termination of the Participant's Continuous Service (for a reason other than death), then the Participant's Option or SAR may be exercised (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within such period of time ending on the earlier of (i) the date 18 months following the date of death (or such longer or shorter period specified in the Stock Award Agreement), and (ii) the expiration of the term of such Option or SAR as set forth in the Stock Award Agreement. If, after the Participant's death, the Option or SAR (as applicable) is not exercised within the applicable time frame, the Option or SAR (as applicable) will terminate.

(k) Termination due to Retirement. Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Retirement, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date twenty-four (24) months following such termination of Continuous Service (or such longer or shorter period specified in the Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the applicable time frame, the Option or SAR (as applicable) will terminate.

(l) Termination for Cause. Except as explicitly provided otherwise in a Participant's Stock Award Agreement or other individual written agreement between the Participant and the Company or an Affiliate, if a Participant's Continuous Service is terminated for Cause, the Participant's Option or SAR will terminate immediately upon such termination of Continuous Service, and the Participant will be prohibited from exercising his or her Option or SAR from and after the time of such termination of Continuous Service.

(m) Non-Exempt Employees. If an Option or SAR is granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option or SAR will not be first exercisable for any shares of Common Stock until at least six months following the date of grant of the Option or SAR (although the Stock Award may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Stock Award Agreement, in another agreement between the Participant and the Company or an Affiliate, or, if no such definition, in accordance with the Company's or Affiliate's then current employment policies and guidelines), the vested portion of any Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay. To the extent permitted and/or required for compliance with the Worker Economic Opportunity Act to ensure that any income derived by a non-exempt employee in connection with the exercise, vesting or issuance of any shares under any other Stock Award will be exempt from the employee's regular rate of pay, the provisions of this Section 5(l) will apply to all Stock Awards and are hereby incorporated by reference into such Stock Award Agreements.

6. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS AND SARs.

(a) Restricted Stock Awards. Each Restricted Stock Award Agreement will be in such form and will contain such terms and conditions as the Board deems appropriate. To the extent consistent with the Company's bylaws, at the Board's election, shares of Common Stock underlying a Restricted Stock Award may be (i) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse, or (ii) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical. Each Restricted Stock Award Agreement will conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. Shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement will be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board will determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement. Notwithstanding the foregoing or anything in the Plan or a Restricted Stock Award Agreement to the contrary, no Restricted Stock Award may be transferred to any financial institution without prior stockholder approval.

(b) Restricted Stock Unit Awards. Each Restricted Stock Unit Award Agreement will be in such form and will contain such terms and conditions as the Board deems appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical. Each Restricted Stock Unit Award Agreement will conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) Payment. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) Additional Restrictions. At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) Termination of Participant's Continuous Service. Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(c) Performance Stock Awards.

(i) Performance Stock Awards. A Performance Stock Award is a Stock Award that is payable (including that may be granted, vest or be exercised) contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Stock Award may, but need not, require the Participant's completion of a specified period of Continuous Service. The length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained will be conclusively determined by the Board, in its sole discretion. In addition, to the extent permitted by applicable law and the applicable Stock Award Agreement, the Board may determine that cash may be used in payment of Performance Stock Awards.

(ii) Discretion. The Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon the attainment of any Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for a Performance Period.

(d) Other Stock Awards. Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (*e.g.*, options or stock appreciation rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards granted under Section 5 and this Section 6. Subject to the provisions of the Plan (including, but not limited to, Section 2(g)), the Board

will have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

7. COVENANTS OF THE COMPANY.

(a) **Availability of Shares.** The Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy then-outstanding Stock Awards.

(b) **Securities Law Compliance.** The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan the authority required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however*, that this undertaking will not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant will not be eligible for the grant of a Stock Award or the subsequent issuance of cash or Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) **No Obligation to Notify or Minimize Taxes.** The Company will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising a Stock Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

8. MISCELLANEOUS.

(a) **Use of Proceeds from Sales of Common Stock.** Proceeds from the sale of shares of Common Stock issued pursuant to Stock Awards will constitute general funds of the Company.

(b) **Corporate Action Constituting Grant of Stock Awards.** Corporate action constituting a grant by the Company of a Stock Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (*e.g.*, Board consents, resolutions or minutes) documenting the corporate action constituting the grant contain terms (*e.g.*, exercise price, vesting schedule or number of shares) that are inconsistent with those in the Stock Award Agreement or related grant documents as a result of a clerical error in the papering of the Stock Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect terms in the Stock Award Agreement or related grant documents.

(c) **Stockholder Rights.** No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to a Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares of Common Stock under, the Stock Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to such Stock Award has been entered into the books and records of the Company.

(d) **No Employment or Other Service Rights.** Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Stock Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or will affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) **Change in Time Commitment.** In the event a Participant's regular level of time commitment in the performance of his or her services for the Company or any Affiliate is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a

full-time Employee to a part-time Employee) after the date of grant of any Stock Award to the Participant, the Board has the right in its sole discretion to (x) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Stock Award that is scheduled to vest or become payable after the date of such change in time commitment, and (y) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Stock Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Stock Award that is so reduced or extended.

(f) Incentive Stock Option Limitations. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds \$100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(g) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, will be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(h) Withholding Obligations. Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to a Stock Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Stock Award; *provided, however,* that no shares of Common Stock are withheld with a value exceeding the maximum amount of tax that may be required to be withheld by law (or such other amount as may be permitted while still avoiding classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from a Stock Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Stock Award Agreement.

(i) Electronic Delivery. Any reference herein to a "written" agreement or document will include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto) or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access).

(j) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Stock Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company or an Affiliate. The Board is authorized to make deferrals of Stock Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(k) Compliance with Section 409A of the Code. Unless otherwise expressly provided for in a Stock Award Agreement, the Plan and Stock Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Stock Awards granted hereunder exempt from Section 409A of the Code, and, to the extent not so exempt, in compliance with Section 409A of the Code. To the extent that the Board determines that any Stock Award granted hereunder is not exempt from and is therefore subject to Section 409A of the Code, the Stock Award Agreement evidencing such Stock Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and, to the extent applicable, the Plan and Stock Award Agreements will be interpreted in accordance with the requirements of Section 409A of the Code. Notwithstanding anything to the contrary in this Plan (and unless the Stock Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded and a Participant holding a Stock Award that constitutes “deferred compensation” under Section 409A of the Code is a “specified employee” for purposes of Section 409A of the Code, no distribution or payment of any amount will be made upon a “separation from service” before a date that is six months following the date of such Participant’s “separation from service” (as defined in Section 409A of the Code without regard to alternative definitions thereunder) or, if earlier, the date of the Participant’s death.

(l) Clawback/Recovery. All Stock Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company’s securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in a Stock Award Agreement as the Board determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for “good reason” or “constructive termination” (or similar term) under any agreement with the Company or an Affiliate.

9. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), and (iii) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

(b) Dissolution or Liquidation. Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company’s right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company’s repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, *provided, however*, that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) Corporate Transactions. The following provisions will apply to Stock Awards in the event of a Transaction unless otherwise provided in the Stock Award Agreement or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. In the event of a Transaction, then, notwithstanding any other provision of the Plan, the Board may take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Transaction:

- (i)** arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation’s parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting, in whole or in part, of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Transaction as the Board determines (or, if the Board does not determine such a date, to the date that is five (5) days prior to the effective date of the Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Transaction; *provided, however*, that the Board may require Participants to complete and deliver to the Company a notice of exercise before the effective date of a Transaction, which exercise is contingent upon the effectiveness of such Transaction;

(iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Transaction, in exchange for such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and

(vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award immediately prior to the effective time of the Transaction, over (B) any exercise price payable by such holder in connection with such exercise. For clarity, this payment may be zero (\$0) if the value of the property is equal to or less than the exercise price. Payments under this provision may be delayed to the same extent that payment of consideration to the holders of the Company's Common Stock in connection with the Transaction is delayed as a result of escrows, earn outs, holdbacks or any other contingencies.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants. The Board may take different actions with respect to the vested and unvested portions of a Stock Award.

(d) **Change in Control.** A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration will occur.

10. TERMINATION OR SUSPENSION OF THE PLAN.

(a) The Board may suspend or terminate the Plan at any time. No Incentive Stock Option will be granted after the tenth anniversary of the earlier of (i) the date the Plan is adopted by the Board, or (ii) the date the Plan is approved by the stockholders of the Company. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

(b) **No Impairment of Rights.** Suspension or termination of the Plan will not materially impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the affected Participant or as otherwise permitted in the Plan.

11. EFFECTIVE DATE OF PLAN.

This Plan will become effective on the Effective Date.

12. CHOICE OF LAW.

The laws of the State of Delaware will govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

13. DEFINITIONS. As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) **"Affiliate"** means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405. The Board will have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(b) “**Board**” means the Board of Directors of the Company.

(c) “**Capitalization Adjustment**” means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(d) “**Cause**” will have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) such Participant’s commission of any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (ii) such Participant’s attempted commission of, or participation in, a fraud or act of dishonesty against the Company; (iii) such Participant’s intentional, material violation of any contract or agreement between the Participant and the Company or of any statutory duty owed to the Company; (iv) such Participant’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; or (v) such Participant’s gross misconduct. The determination that a termination of the Participant’s Continuous Service is either for Cause or without Cause will be made by the Company, in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(e) “**Change in Control**” means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company’s then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control will not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company’s securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (C) solely because the level of Ownership held by any Exchange Act Person (the “**Subject Person**”) exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control will be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company will otherwise occur, except for a liquidation into a parent corporation;

(iv) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(v) individuals who, on the date the Plan is adopted by the Board, are members of the Board (the “**Incumbent Board**”) cease for any reason to constitute at least a majority of the members of the Board; *provided, however*, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member will, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing definition or any other provision of this Plan, (A) the term Change in Control will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant will supersede the foregoing definition with respect to Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition will apply.

(f) “**Code**” means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(g) “**Committee**” means a committee of one or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(h) “**Common Stock**” means the common stock of the Company.

(i) “**Company**” means MannKind Corporation, a Delaware corporation.

(j) “**Consultant**” means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a “Consultant” for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company’s securities to such person.

(k) “**Continuous Service**” means that the Participant’s service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Director or Consultant or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant’s service with the Company or an Affiliate, will not terminate a Participant’s Continuous Service; *provided, however*, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, in its sole discretion, such Participant’s Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. For example, a change in status from an Employee of the Company to a Consultant of an Affiliate or to a Director will not constitute an interruption of Continuous Service. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party’s sole discretion, may determine whether Continuous Service will be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors.

Notwithstanding the foregoing, a leave of absence will be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company's or Affiliate's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(l) **"Corporate Transaction"** means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

- (i) a sale, lease or other disposition of all or substantially all of the assets of the Company;
- (ii) a sale or other disposition of at least ninety percent (90%) of the outstanding securities of the Company;
- (iii) a merger, consolidation or similar transaction in which the Company is not the surviving corporation; or
- (iv) a reverse merger, consolidation or similar transaction in which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

Notwithstanding the foregoing definition or any other provision of this Plan, the term Corporate Transaction will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company.

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

(n) **"Disability"** means, with respect to a Participant, the inability of such Participant 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 that has lasted or can be expected to last for a continuous period of not less than 12 months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(o) **"Effective Date"** means the effective date of this Plan document, which is the date of the annual meeting of stockholders of the Company held in 2018, provided this Plan is approved by the Company's stockholders at such meeting.

(p) **"Employee"** means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an "Employee" for purposes of the Plan.

(q) **"Entity"** means a corporation, partnership, limited liability company or other entity.

(r) **"Exchange Act"** means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(s) **"Exchange Act Person"** means any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that "Exchange Act Person" will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company's then outstanding securities.

(t) **“Fair Market Value”** means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be, unless otherwise determined by the Board, the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(u) **“Full Value Award”** means a Stock Award that is not an Option or SAR with respect to which the exercise or strike price is at least 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date of grant.

(v) **“Incentive Stock Option”** means an option granted pursuant to Section 5 that is intended to be, and that qualifies as, an “incentive stock option” within the meaning of Section 422 of the Code.

(w) **“Non-Employee Director”** means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act (“**Regulation S-K**”)), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a “non-employee director” for purposes of Rule 16b-3.

(x) **“Nonstatutory Stock Option”** means any option granted pursuant to Section 5 that does not qualify as an Incentive Stock Option.

(y) **“Officer”** means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(z) **“Option”** means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(aa) **“Option Agreement”** means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement will be subject to the terms and conditions of the Plan.

(bb) **“Optionholder”** means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(cc) **“Other Stock Award”** means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(d).

(dd) **“Other Stock Award Agreement”** means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement will be subject to the terms and conditions of the Plan.

(ee) **“Own,” “Owned,” “Owner,” “Ownership”** A person or Entity will be deemed to “Own,” to have “Owned,” to be the “Owner” of, or to have acquired “Ownership” of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(ff) **“Participant”** means a person to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(gg) “*Performance Criteria*” means the one or more criteria that the Board shall select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that shall be used to establish such Performance Goals may be based on any one of, or combination of, the following: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization; (iv) total stockholder return; (v) return on equity or average stockholder’s equity; (vi) return on assets, investment, or capital employed; (vii) stock price; (viii) margin (including gross margin); (ix) income (before or after taxes); (x) operating income; (xi) operating income after taxes; (xii) pre-tax profit; (xiii) operating cash flow; (xiv) sales or revenue targets; (xv) increases in revenue or product revenue; (xvi) expenses and cost reduction goals; (xvii) improvement in or attainment of working capital levels; (xviii) economic value added (or an equivalent metric); (xix) market share; (xx) cash flow; (xxi) cash flow per share; (xxii) share price performance; (xxiii) debt reduction; (xxiv) implementation or completion of projects or processes; (xxv) customer satisfaction; (xxvi) stockholders’ equity; (xxvii) capital expenditures; (xxviii) debt levels; (xxix) operating profit or net operating profit; (xxx) workforce diversity; (xxxi) growth of net income or operating income; (xxxii) billings; and (xxxiv) other measures of performance selected by the Board. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Stock Award Agreement. The Board shall, in its sole discretion, define the manner of calculating the Performance Criteria it selects to use for such Performance Period.

(hh) “*Performance Goals*” means, for a Performance Period, the one or more goals established by the Board for the Performance Period based upon the Performance Criteria. Performance Goals may be based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. The Board is authorized at any time in its sole discretion, to adjust or modify the calculation of a Performance Goal for such Performance Period in order to prevent the dilution or enlargement of the rights of Participants, (a) in the event of, or in anticipation of, any unusual or extraordinary corporate item, transaction, event or development; (b) in recognition of, or in anticipation of, any other unusual or nonrecurring events affecting the Company, or the financial statements of the Company in response to, or in anticipation of, changes in applicable laws, regulations, accounting principles, or business conditions; or (c) in view of the Board’s assessment of the business strategy of the Company, performance of comparable organizations, economic and business conditions, and any other circumstances deemed relevant. Specifically, the Board is authorized to make adjustment in the method of calculating attainment of Performance Goals and objectives for a Performance Period as follows: (i) to exclude the dilutive effects of acquisitions or joint ventures; (ii) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture; and (iii) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends. In addition, the Board is authorized to make adjustment in the method of calculating attainment of Performance Goals and objectives for a Performance Period as follows: (i) to exclude restructuring and/or other nonrecurring charges; (ii) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated net sales and operating earnings; (iii) to exclude the effects of changes to generally accepted accounting standards required by the Financial Accounting Standards Board; (iv) to exclude the effects of any items that are “*unusual*” in nature or occur “*infrequently*” as determined under generally accepted accounting principles; (v) to exclude the effects to any statutory adjustments to corporate tax rates; and (vi) to make other appropriate adjustments selected by the Board.

(ii) “*Performance Period*” means the period of time selected by the Board over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant’s right to and the payment of a Performance Stock Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

(jj) “*Performance Stock Award*” means a Stock Award granted under the terms and conditions of Section 6(c)(i).

(kk) “*Plan*” means this MannKind Corporation 2018 Equity Incentive Plan.

(ll) “*Restricted Stock Award*” means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

(mm) “**Restricted Stock Award Agreement**” means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

(nn) “**Restricted Stock Unit Award**” means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(oo) “**Restricted Stock Unit Award Agreement**” means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement will be subject to the terms and conditions of the Plan.

(pp) “**Retirement**” means a Participant’s voluntary termination of Continuous Service after the Participant attains age fifty-five (55).

(qq) “**Rule 16b-3**” means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(rr) “**Rule 405**” means Rule 405 promulgated under the Securities Act.

(ss) “**Securities Act**” means the Securities Act of 1933, as amended.

(tt) “**Stock Appreciation Right**” or “**SAR**” means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

(uu) “**Stock Appreciation Right Agreement**” means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement will be subject to the terms and conditions of the Plan.

(vv) “**Stock Award**” means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Stock Appreciation Right, a Restricted Stock Award, a Restricted Stock Unit Award, a Performance Stock Award or any Other Stock Award.

(ww) “**Stock Award Agreement**” means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement will be subject to the terms and conditions of the Plan.

(xx) “**Subsidiary**” means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(yy) “**Ten Percent Stockholder**” means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Affiliate.

(zz) “**Transaction**” means a Corporate Transaction or a Change in Control.