



PROXY STATEMENT

Annual Meeting:
June 4, 2019, 9:00 a.m. Pacific Time

BioMarin
Morning Glory Conference Room
750 Lindero Street
San Rafael, CA 94901



Notice of Annual Meeting of Stockholders



TIME AND DATE

9:00 a.m. (Pacific Time), June 4, 2019



LOCATION

BioMarin, Morning Glory Conference Room,
750 Lindaro Street, San Rafael, CA 94901

Dear Stockholder of BioMarin:

You are cordially invited to attend the Annual Meeting of the Stockholders (the Annual Meeting) of BioMarin Pharmaceutical Inc., a Delaware corporation (we, us, BioMarin or the Company). The Annual Meeting will be held on Tuesday, June 4, 2019 at 9:00 a.m. (Pacific Time), at the Company's offices in the Morning Glory Conference Room, 750 Lindaro Street, San Rafael, CA 94901 for the following purposes:

ITEMS OF BUSINESS

1. To elect the ten nominees for Director named in the proxy statement accompanying this Notice of Annual Meeting of Stockholders (the Proxy Statement) to serve until the next Annual Meeting and until their successors are duly elected and qualified;
2. To ratify the selection of KPMG LLP as the independent registered public accounting firm for BioMarin for the fiscal year ending December 31, 2019;
3. To approve, on an advisory basis, the compensation of the Company's Named Executive Officers as disclosed in the Proxy Statement;
4. To approve an amendment to the 2017 Equity Incentive Plan;
5. To approve amendments to the Amended and Restated 2006 Employee Stock Purchase Plan; and
6. To conduct any other business properly brought before the Annual Meeting.

These items of business are more fully described in the Proxy Statement.

RECORD DATE

Monday, April 8, 2019

Voting

Whether or not you expect to attend the Annual Meeting, please vote in advance of the meeting using one of the following methods.



TELEPHONE

Call toll-free 1-866-690-6903.



INTERNET

Vote online at www.proxyvote.com.



MAIL

Follow the instructions in your proxy materials.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting to be held on June 4, 2019 at 9:00 a.m. at the Company's offices in the Morning Glory Conference Room, 750 Lindaro Street, San Rafael, CA 94901

The Proxy Statement, annual report and letter to stockholders are available at: www.proxyvote.com.

If you have any questions or need assistance in voting your shares, please call the following firm, which is assisting the Company in the solicitation of proxies:

Morrow Sodali LLC
470 West Avenue
Stamford, CT 06902
1-800-662-5200

Only stockholders of record at the close of business on the Record Date may vote at the Annual Meeting or any adjournment thereof. A complete list of such stockholders will be available for examination by any stockholder for any purpose germane to the Annual Meeting during ordinary business hours at the Company's principal executive offices for a period of 10 days before the Annual Meeting.

By Order of the Board of Directors

G. Eric Davis

Executive Vice President, General Counsel and Secretary
San Rafael, California
April 23, 2019

Table of Contents

3	Notice of Annual Meeting of Stockholders	81	PROPOSAL NO. FOUR: Approval of an Amendment to the 2017 Equity Incentive Plan
5	Proxy Overview	81	Purpose of Proposal
16	PROPOSAL NO. ONE: Election of Directors	81	Why the Board Believes You Should Vote FOR Proposal No. Four
16	Vote Required	83	Key Plan Features Representing Corporate Governance Best Practices
16	Director Resignation Policy	83	Performance-Based Awards and Section 162(m)
17	Nominees for Director	84	Board and Stockholder Approval
22	Director Independence	84	Stock Price
23	Identifying and Evaluating Candidates for Director	84	Description of the Amended 2017 Plan
24	Stockholder Nominations	92	U.S. Federal Income Tax Consequences
24	The Board's Roles and Responsibilities	94	New Plan Benefits
31	Board Processes	95	PROPOSAL NO. FIVE: Approval of Amendments to the Amended and Restated 2006 Employee Stock Purchase Plan
32	Other Board Governance Information	95	Purpose of Proposal
33	Summary of Independent Director Compensation	95	Why the Board Believes You Should Vote FOR Proposal No. Five
37	PROPOSAL NO. TWO: Ratification of the Selection of the Independent Registered Public Accounting Firm for BioMarin	96	Summary of Material Changes
37	Independent Registered Public Accounting Firm	96	Background
38	Report of the Audit Committee of the Board of Directors	96	Description of the 2006 ESPP, as Amended
39	Executive Officers	99	New Plan Benefits
42	PROPOSAL NO. THREE: Advisory Vote on Executive Compensation	99	Stockholder Approval
43	Letter from our Compensation Committee	100	Additional Information
44	Executive Compensation	100	Questions and Answers about these Proxy Materials and Voting
44	Compensation Discussion and Analysis	107	Householding of Proxy Materials
64	Executive Compensation Tables	107	Other Matters
76	Stock Ownership Information	108	Special Note Regarding Forward-Looking Statements
76	Security Ownership of Certain Beneficial Owners and Management	A-1	Appendix A – 2017 Equity Incentive Plan, As Amended April 12, 2019
78	Director and Officer Stock Ownership Guidelines	B-1	Appendix B – Amended and Restated 2006 Employee Stock Purchase Plan, As Amended and Restated April 12, 2019
79	Anti-Hedging and Anti-Pledging Policy		
79	Section 16(a) Beneficial Ownership Reporting Compliance		
80	Equity Compensation Plan Information		

Proxy Overview

This overview highlights certain information contained elsewhere in this Proxy Statement and does not contain all of the information that you should consider. You should read the entire Proxy Statement carefully before voting. For more complete information regarding our business and 2018 performance, please review our Annual Report on Form 10-K for the year ended December 31, 2018 as filed with the Securities and Exchange Commission (the SEC) on February 28, 2019.

Meeting and Voting Information



TIME AND DATE

9:00 a.m. (Pacific Time),
June 4, 2019



LOCATION

BioMarin, Morning Glory Conference Room,
750 Lindero Street, San Rafael, CA 94901

You are cordially invited to attend the meeting in person. Whether or not you expect to attend the meeting, please vote as soon as possible. Please see “Questions and Answers about These Proxy Materials and Voting—How Do I Vote?” beginning on page 101 below.

We intend to mail a Notice Regarding the Availability of Proxy Materials on or about April 23, 2019 to all stockholders of record entitled to vote at the Annual Meeting. We expect that this Proxy Statement and the other proxy materials will be available to stockholders on or about April 23, 2019.

Business Overview

BioMarin is a global biotechnology company that develops and commercializes innovative therapies for people with serious and life-threatening rare diseases and medical conditions. We select product candidates for diseases and conditions that represent a significant unmet medical need, have well-understood biology and provide an opportunity to be first-to-market or offer a significant benefit over existing products. Our therapy portfolio consists of seven commercial products and multiple clinical and pre-clinical product candidates.

Our commercial products are:



Aldurazyme (Laronidase) for
Mucopolysaccharidosis I



Brineura (cerliponase alfa) for late infantile
neuronal ceroid lipofuscinosis type 2



Firdapse (amifampridine phosphate) for
Lambert Eaton Myasthenic Syndrome
(European Union only)



Kuvan (sapropterin
dihydrochloride) for
phenylketonuria (PKU)



Naglazyme (galsulfase) for
Mucopolysaccharidosis VI



Palynziq (pegvaliase-pqpz)
for PKU



Vimizim (elosulfase alfa)
for Mucopolysaccharidosis IV
Type A

We continue to invest in our clinical and pre-clinical product pipeline by committing significant resources to research and development programs and business development opportunities within our areas of scientific, manufacturing and technical expertise. We are conducting clinical trials on several product candidates for the treatment of various diseases.

Our product candidates in development include:

Palynziq in Europe: an enzyme substitution therapy for the treatment of PKU	Vosoritide: a peptide therapeutic for the treatment of achondroplasia, the most common form of disproportionate short stature	Valoctocogene roxaparvovec: a factor VIII gene therapy product candidate, for the treatment of hemophilia A	BMN 307: a gene therapy product candidate, for the treatment of PKU
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We are conducting or planning to conduct development of several other product candidates for genetic and other metabolic diseases.

Director Nominees

The following table provides summary information about each nominee for Director, each of whom is a continuing Director as of March 15, 2019. See pages 17 to 22 for more information.

Name	Age	Director Since	Occupation	Independent
Jean-Jacques Bienaimé <i>Chair of the Board</i>	65	May 2005	Chairman and Chief Executive Officer, BioMarin Pharmaceutical Inc.	No
Willard Dere, M.D.	65	July 2016	Professor of Internal Medicine, B. Lue and Hope S. Bettilyon Presidential Endowed Chair in Internal Medicine for Diabetes Research, Executive Director of Personalized Health, and Co-Principal Investigator of the Center for Clinical & Translational Science at the University of Utah Health Sciences Center	Yes
Michael Grey	66	December 2005	Executive Chairman, Amplyx Pharmaceuticals, Inc.; Executive Chairman, Mirum Pharmaceuticals, Inc.; Executive Chairman, Reneo Pharmaceuticals, Inc.; Executive Chairman, Spruce Biosciences, Inc.	Yes
Elaine J. Heron, Ph.D.	71	July 2002	Director, Amplyx Pharmaceuticals, Inc.; Director, Vala Sciences Inc.; Director, Palvella Therapeutics; Director, Dropworks, Inc.	Yes
Robert J. Hombach	53	September 2017	Former Executive Vice President, Chief Financial Officer & Chief Operations Officer, Baxalta Inc.; Director, CarMax, Inc.; Director, Aptinix Inc.	Yes
V. Bryan Lawlis, Ph.D.	67	June 2007	Director, Coherus Biosciences, Inc.; Director, Geron Corporation; Director, Aeglea BioTherapeutics, Inc.; Director, Sutro Biopharma, Inc.	Yes
Alan J. Lewis, Ph.D.	73	June 2005	Chief Executive Officer and Director, Diavacs, Inc.; Director, Assembly Biosciences, Inc.; Director, Scancell Holdings plc	Yes
Richard A. Meier <i>Lead Independent Director</i>	59	December 2006	Partner, AtlasRock&Co.; Former President-International and Executive Vice President and Chief Financial Officer, Owens & Minor, Inc.	Yes
David Pyott, M.D. (Hon.)	65	January 2016	Lead Director, Avery Dennison Corporation; Director, Alynlam Pharmaceuticals, Inc.; Supervisory Board Member, Royal Philips in the Netherlands	Yes
Dennis J. Slamon, M.D., Ph.D.	70	March 2014	Professor of Medicine, UCLA Department of Medicine; Director, Clinical/Translational Research at UCLA's Jonsson Comprehensive Cancer Center; Director, Revlon/UCLA Women's Cancer Research Program	Yes

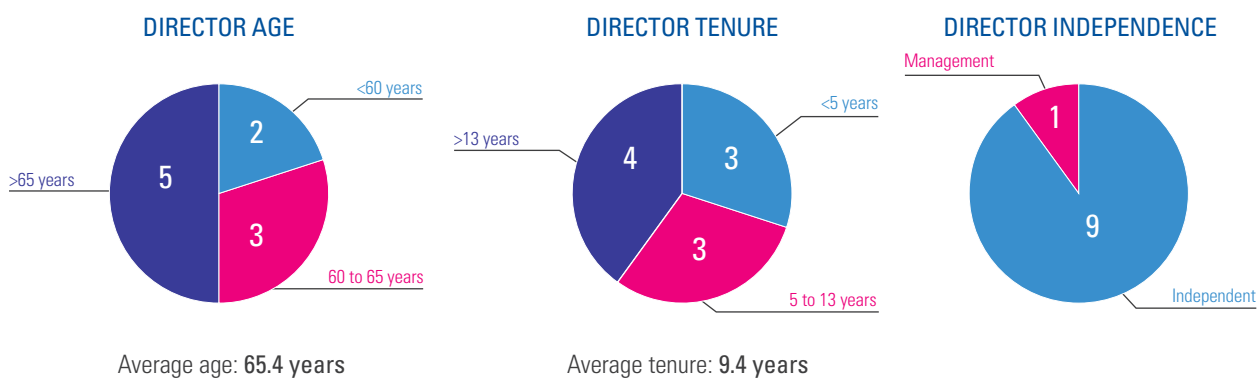
Director Dashboards

We examine the experience and expertise of our Board as a whole to ensure alignment between the abilities and contributions of our Board and our strategic priorities and long-range plan, emphasizing, among other things, skills and experience in leadership of large, complex organizations, particularly in related industries; sales and marketing of biotechnology and pharmaceutical products; manufacturing of biotechnology and small molecule drug products; research and development of drug products, including managing and conducting clinical trials and the drug regulatory approval processes; medicine; finance and accounting; capital markets; business development; legal and intellectual property; and information technology. All of our Directors exhibit high integrity, sound business judgment, innovative thinking, collegiality and a knowledge of corporate governance requirements and practices, and our Directors as a whole bring a balance of relevant skills and experience to our boardroom, including those listed below:

DIRECTOR SKILLS AND EXPERIENCE



Our Board is substantially independent and has a mix of relatively new and longer-tenured Directors. The charts below show the makeup of Director nominees by various characteristics as of March 15, 2019:



Corporate Governance Overview

We are committed to exercising good corporate governance and frequently reviewing our practices. We believe that good governance promotes the long-term interests of our stockholders and strengthens Board and management accountability. The highlights of our corporate governance practices include the following:

Shareholder Rights and Accountability

- Proxy access bylaw (3% holder for three years) adopted in the third quarter of 2018
- Plurality voting in the election of Directors in uncontested elections, with Director resignation policy adopted in the fourth quarter of 2013



Board Independence

- 9 out of 10 of our current Directors (all of whom are up for election at the Annual Meeting) are independent
- Regular executive sessions of independent Directors
- 100% independent committee members
- Lead Independent Director with clearly delineated duties and robust authority since the second quarter of 2015
- Board and committees may engage outside advisors independently of management

Stock Ownership by Directors and Executives

- Share ownership guidelines for Directors and executive officers helps to align their interests with stockholder interests
- Prohibit short sales, transactions in put or call options, hedging transactions, or other inherently speculative transactions in our stock or engaging in margin activities

Robust Compensation-Setting Process

- Independent compensation consultant reporting directly to the compensation committee
- Policy for Recoupment of Incentive Compensation
- Annual advisory approval of executive compensation

Board Practices

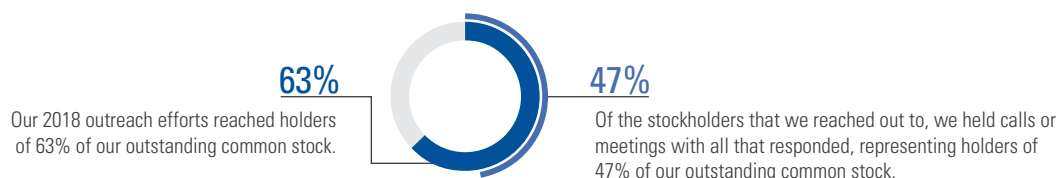
- Commitment to diversity of Board in terms of specific skills and characteristics (expertise, race, ethnicity, and gender), including adoption in the third quarter of 2018 of formal policy to consider women and minority candidates for all open Board positions
- Annual Board and committee self-evaluations
- Risk oversight by the full Board and committees
- Corporate Governance Principles
- Robust Global Code of Conduct and Business Ethics
- Financial Authority Policy, under which the Board must approve spend over a certain dollar threshold

Stockholder Engagement

We regularly engage with our stockholders through open dialogue and direct individual communication on topics related to our business, financial performance, corporate governance and compensation. Stockholder feedback is important, and the information we glean from these engagements is highly valued. In particular, our stockholders' views and opinions on our executive compensation practices are extremely important to us. As stewards of good corporate governance, our Compensation Committee evaluates the design of our executive compensation program based on market conditions, stockholder views and other governance considerations.

Increased Outreach in 2018

In 2018, we increased our level of engagement to ensure stockholder interests were incorporated into our planning process for corporate governance changes and the 2019 executive compensation program. Our outreach in 2018 included all of our top 20 stockholders, representing holders of 63% of our outstanding common stock as of the Record Date for the 2018 Annual Meeting of Stockholders. We requested calls or meetings with all of the stockholders we contacted. We then held calls or meetings with all those stockholders that responded, representing holders of 47% of our outstanding common stock as of the Record Date for the 2018 Annual Meeting of Stockholders. Our Lead Independent Director, Richard Meier, and executives from our Human Resources, Investor Relations, and Legal Departments participated in a number of such calls and meetings.



Compensation and Corporate Governance Changes

During our stockholder outreach efforts we discussed a number of topics, including corporate governance topics like stockholder proxy access and Board diversity. We also sought feedback on our executive compensation program after the disappointing outcome of our “say-on-pay” vote at our 2018 Annual Meeting of Stockholders. Despite having the support of nine of our top ten stockholders⁽¹⁾, our last say-on-pay vote received support from only 56% of the votes cast. Our Lead Independent Director, Richard Meier, participated in a number of the calls with our stockholders, and feedback from these discussions was relayed to the Compensation Committee and full Board. How we changed our executive compensation and governance practices in direct response to what we heard from our stockholders is described below:

<p>Solution: We significantly increased the portion of performance-based restricted stock units (RSUs) as a percentage of total long-term equity compensation.</p> <ul style="list-style-type: none"> The allocation of equity awards changed from 40% stock options, 30% service-based RSUs, and 30% performance-based RSUs to 25% stock options, 25% service-based RSUs, and 50% performance-based RSUs. Effective Date: Beginning with equity grants made in March 2019. 	<p>Feedback Addressed</p> <p>More of long-term compensation should be performance-based, rather than time-based.</p> <p>Purpose of Change</p> <p>Further tie compensation to performance of the Company.</p>
<p>Solution: 50% of performance-based RSUs will be earned based on relative total shareholder return (TSR).</p> <ul style="list-style-type: none"> Instead of all performance-based RSUs being earned based on revenue achievement, 50% will be earned based on the percentile of the Company’s relative TSR performance as compared to companies that make up the NASDAQ Biotechnology Index. Effective Date: Beginning with equity grants made in March 2019. 	<p>Feedback Addressed</p> <ul style="list-style-type: none"> Realized compensation has not always closely correlated to stockholder experience. Revenue determines a large proportion of short-term performance-based compensation (30% weight in annual cash incentive program), so revenue should not also determine long-term performance-based compensation. <p>Purpose of Change</p> <ul style="list-style-type: none"> More closely align realized compensation with stockholder return. Further focus management on goals other than revenue growth that may also drive stockholder value.
<p>Solution: The TSR metric underlying the new performance-based RSU program will be measured using a three-year period.</p> <ul style="list-style-type: none"> Prior to this change, all performance-based RSUs were based on one-year revenue performance. Effective Date: Beginning with equity grants made in March 2019. We expect that by the 2020 annual equity grant, 100% of our performance-based RSU grants will use a three-year performance period. 	<p>Feedback Addressed</p> <p>More of the performance-based compensation should be earned over a longer period.</p> <p>Purpose of Change</p> <ul style="list-style-type: none"> Further incentivize long-term performance and tie compensation to achievement of long-term goals. Encourage retention of key employees.
<p>Solution: We included more information in this Proxy Statement regarding the annual cash incentive program.</p> <ul style="list-style-type: none"> We provided significantly more details regarding the development goals for each clinical and pre-clinical program underlying the annual cash incentive program. Effective Date: The date of this Proxy Statement. 	<p>Feedback Addressed</p> <p>More details should be provided regarding the development goals underlying the annual cash incentive program.</p> <p>Purpose of Change</p> <p>Increase transparency in determining amounts earned under the annual cash incentive program and explain the philosophy behind the program’s design.</p>
<p>Solution: We amended our Corporate Governance Principles to formalize the current practice of considering women and minority candidates for all open Board positions.</p> <ul style="list-style-type: none"> Effective Date: September 2018. 	<p>Feedback Addressed</p> <p>We should take steps to improve the diversity of our Board.</p> <p>Purpose of Change</p> <p>Formalize the current policy intended to create a Board with the diversity of skills, experience, and characteristics necessary for the optimal functioning of the Board.</p>

⁽¹⁾ One of our top ten stockholders indicated to us that they supported the say-on-pay proposal; however, the stockholder did not cast its vote due to technical problems with its systems.

Executive Compensation Highlights

We designed our executive compensation program to attract, motivate and retain the executive talent necessary to advance our business of developing and commercializing innovative biopharmaceuticals for serious diseases and medical conditions and to increase stockholder value. Our compensation program is aligned with our business strategy and priorities, encourages executive officers to work for meaningful stockholder returns and reflects a pay-for-performance philosophy. It does not encourage our executive officers to assume excessive risks or result in excessive pay levels. We achieve our pay objectives by providing short-term cash bonuses tied to our financial and development goals and by granting long-term equity awards, including performance-based RSUs tied to financial results, and starting in 2019, RSUs that are also tied to relative stock performance over a three-year period.

Our Executive Compensation Practices

Our executive compensation policies and practices reinforce our pay-for-performance philosophy and align with sound governance principles.



What We Do

- Design executive compensation to align pay with performance
- Balance short- and long-term incentive compensation to incentivize achievement of short- and long-term business goals
- Reward performance by making a vast majority of executive compensation “at-risk”
- Retain independent compensation consultant reporting directly to the Compensation Committee
- Require executive officers and Directors to meet stock ownership guidelines
- Provide stockholders an annual say-on-pay vote and solicit feedback on our compensation programs from stockholders
- Prohibit short sales, transactions in put or call options, hedging transactions or other inherently speculative transactions in our stock or engaging in margin activities
- Maintain a policy on recoupment of incentive compensation
- Provide only limited and modest perquisites



What We Don't Do

- No repricing of underwater stock options without prior stockholder approval
- No excessive perquisites
- No guaranteed bonuses or base salary increases
- No tax gross-ups on severance or change in control benefits

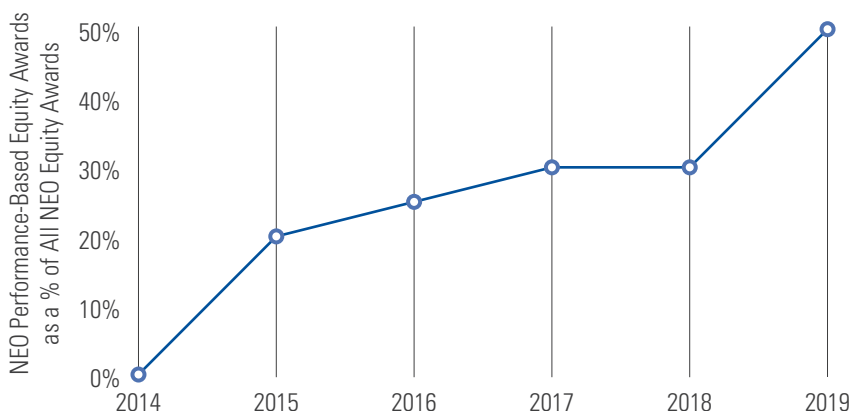
Our Fiscal 2018 NEO Pay

Increasing NEO Performance-Based Equity Awards

In 2018, the revenue goal payout for the annual cash incentive program was based on an accelerated scale, as in 2017, to emphasize the importance of revenue growth to the Company, to recognize the difficulty in exceeding the sales revenue goal and to be consistent with many of our peers. To incentivize cost control, progress toward GAAP profitability, and increased non-GAAP profitability, the research and development (R&D) expense and sales, general and administrative (SG&A) expense goal payout was based on an accelerated scale instead of the traditional sliding scale used before 2017 and was payable only if we achieved 2018 non-GAAP Income⁽¹⁾ at or above 2017 non-GAAP Income (\$74 million). Also, we continued to align the performance-based equity element of compensation of our Named Executive Officers (NEOs) with the revenue goal portion of the annual cash incentive program, thus further incentivizing our executives to focus on revenue growth.

We work with our compensation consultant throughout each year to stay at the forefront of pay and governance trends and best practices. In early 2019, we continued our move to enhance the link between pay and performance by increasing the proportion of performance-based equity we grant from 30% to 50% of the total equity grants for our NEOs, as shown in the graph below. We made this change in response to feedback received from our stockholders and because of our desire to stay at the forefront of the trend toward increasing performance-based equity compensation as compared to our peer companies.

2014 TO 2019: INCREASING NEO PERFORMANCE-BASED EQUITY AWARDS

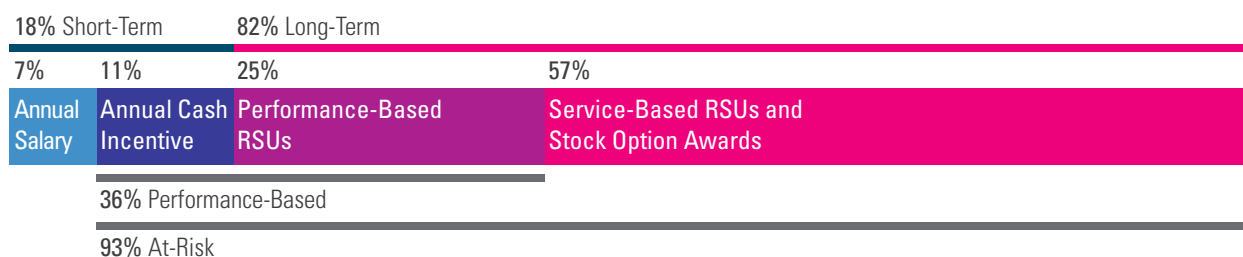


⁽¹⁾ For 2017 and 2018, we define non-GAAP Income (Loss) as reported GAAP Net Income (Loss), excluding net interest expense, provision for (benefit from) income taxes, depreciation expense, amortization expense, stock-based compensation expense, contingent consideration expense and gain on sale of intangible asset.

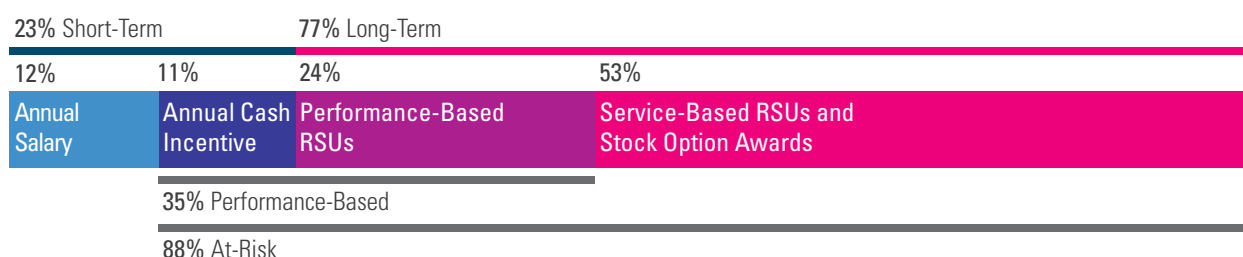
NEOs' Total Compensation Mix

The following charts show the breakdown of reported fiscal 2018 total compensation for our Chief Executive Officer, Mr. Bienaimé, and other NEOs. These charts illustrate the predominance of long-term equity incentives and performance-based components in our executive compensation program (36% for our CEO and 35% for the other NEOs). We believe these components provide a compensation package that not only helps to attract and retain qualified individuals to serve as executive officers but also links individual compensation to Company performance. The total compensation mix is intended to focus the efforts of our NEOs on the achievement of both our short- and long-term objectives, thus aligning the interests of our executive officers with those of our stockholders.

CEO TOTAL COMPENSATION MIX IN 2018⁽¹⁾



OTHER NEOs' TOTAL COMPENSATION MIX IN 2018⁽¹⁾⁽²⁾



⁽¹⁾ Each percentage is calculated as a percentage of total compensation set forth in the "Summary Compensation Table" in this Proxy Statement and is based on the amounts in such table, including the "Target Payout" amounts in footnote (2) to such table. The amounts under "All Other Compensation" in the "Summary Compensation Table" in this Proxy Statement are not represented in the chart because such amounts as a percentage of total compensation round down to zero. Certain percentages are rounded up or down by less than 1% so that totals equal 100%.

⁽²⁾ Percentages calculated based on sum of all other NEOs' compensation.

Summary of Stockholder Voting Matters and Board Recommendations

For the reasons set forth below and in the rest of this Proxy Statement, our Board of Directors recommends that you vote your shares “FOR” each of the nominees named below for Director to hold office until the 2020 Annual Meeting of Stockholders and “FOR” each of the other proposals.

Proposal No. One

Election of Directors

The Board of Directors recommends a vote “FOR” each of the nominees.

Vote required to elect each nominee: The ten nominees who receive the most “FOR” votes cast by the holders of shares either present in person or represented by proxy and entitled to vote will be elected to our Board.

For more information, see Proposal No. One starting on page 16.

We are asking our stockholders to vote “FOR” each of the ten nominees for Director to serve until the next Annual Meeting and until their successors are duly elected and qualified. Detailed information about each nominee’s background and experience can be found beginning on page 17.

Each of the nominees for Director was nominated for election by the Board of Directors upon the recommendation of our Corporate Governance and Nominating (CGN) Committee. Our Board of Directors believes that each nominee has the specific experience, qualifications, attributes and skills to serve as a member of the Board of Directors.

We have a policy that provides that any Director nominee who receives a greater number of votes “withheld” for his or her election than votes “for” his or her election should promptly tender his or her resignation. For more information on this policy, see page 16.

Proposal No. Two

Ratification of the Selection of KPMG LLP as the Independent Registered Public Accounting Firm for BioMarin for the Year Ending December 31, 2019

The Board of Directors recommends a vote “FOR” this proposal.

Vote required for approval: Affirmative vote of a majority of the votes cast on the proposal.

For more information, see Proposal No. Two starting on page 37.

The Board and the Audit Committee believe that the continued retention of KPMG LLP (KPMG) to serve as our independent registered public accounting firm for the fiscal year ending December 31, 2019 is in the best interest of the Company and its stockholders. As a matter of good corporate governance, we are asking our stockholders to ratify the Audit Committee’s selection of the independent registered public accounting firm.

Proposal No. Three

Non-Binding Advisory Vote on Executive Compensation

The Board of Directors recommends a vote “FOR” this proposal.

Vote required for approval: Affirmative vote of a majority of the votes cast on the proposal.

For more information, see Proposal No. Three starting on page 42.

We are asking our stockholders for advisory approval of the compensation of our NEOs as disclosed in this Proxy Statement. Our executive compensation program is aligned with our business strategy and priorities and encourages executive officers to work for meaningful stockholder returns consistent with our pay-for-performance philosophy. We align our executive officers’ interests with our stockholders’ interests by rewarding our executive officers for both current performance and longer-term performance, with performance measured by both financial performance and milestones for the advancement of our long-term development programs and strategic initiatives.



Proposal No. Four

Approval of an Amendment to the 2017 Equity Incentive Plan

The Board of Directors recommends a vote “FOR” this proposal.

Vote required for approval:

Affirmative vote of a majority of the votes cast on the proposal.

For more information, see Proposal No. Four starting on page 81.

We are asking our stockholders to approve an amendment (the 2017 Plan Amendment) to the BioMarin Pharmaceutical Inc. 2017 Equity Incentive Plan (the 2017 Plan). The 2017 Plan Amendment increases the shares reserved for issuance under the 2017 Plan by 11,000,000, so that the total number of shares available for future awards under the 2017 Plan would be approximately 14,000,000 and the total number of shares reserved for issuance under the 2017 Plan would be 31,880,015. The 2017 Plan Amendment makes no other changes to the 2017 Plan. The 2017 Plan contains a number of features representing good corporate governance practices, including:

- annual limit on non-employee Director compensation;
- no repricing without stockholder approval;
- no discounted options;
- restrictions on payment of dividends and dividend equivalents;
- awards subject to our clawback policy;
- no “liberal” change in control definition or “liberal” share recycling provision;
- no requirement for single-trigger vesting of awards on a change in control;
- administration by an independent committee; and
- material amendments require stockholder approval.

Proposal No. Five

Approval of Amendments to the Amended and Restated 2006 Employee Stock Purchase Plan

The Board of Directors recommends a vote “FOR” this proposal.

Vote required for approval:

Affirmative vote of a majority of the votes cast on the proposal.

For more information, see Proposal No. Five starting on page 95.

We are asking our stockholders to approve amendments to the Amended and Restated 2006 Employee Stock Purchase Plan (the 2006 ESPP) to (i) increase the number of shares of common stock authorized for issuance under the 2006 ESPP by 3,500,000 shares from 3,500,000 shares to 7,000,000 shares (ii) extend the term of the 2006 ESPP and (iii) make certain other administrative changes.

The 2006 ESPP is primarily designed to retain and motivate U.S. employees of the Company and its designated affiliates by encouraging them to acquire ownership in the Company on a tax-favored basis. In particular, the 2006 ESPP is intended to be an “employee stock purchase plan” within the meaning of Section 423 of the Internal Revenue Code of 1986, as amended (the Code), and thereby to allow participating employees to defer recognition of taxes when purchasing common stock at a discount under such a purchase plan.

Proposal No. One: Election of Directors

Each of the ten nominees for Director listed below is currently a Director of the Company and was previously elected by the stockholders. Each Director nominee to be elected and qualified will hold office until the next Annual Meeting of Stockholders and until his or her successor is duly elected and qualified, or, if sooner, until the Director's death, resignation or removal.

Vote Required






























Directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of Directors. The ten nominees receiving the highest number of affirmative votes will be elected.

Director Resignation Policy

Pursuant to our Corporate Governance Principles (which are available in the Corporate Governance section of the Investors section of our website at www.bmrn.com), any Director nominee who receives a greater number of votes "withheld" from his or her election than votes "for" his or her election in an uncontested election at a stockholders' meeting should promptly tender his or her resignation to the Chair of the Board following certification of the stockholder vote. The CGN Committee will then make a recommendation to the Board regarding the appropriate response to such an offer of resignation and the Board will then deliberate and vote on such recommendation.

Nominees for Director

The names and ages of the nominees, as well as their occupations, lengths of service with the Company and Board committee memberships are set forth in the table below. A brief biography of each nominee is also set forth below, which includes information, as of March 15, 2019, regarding specific and particular experience, qualifications, attributes or skills of each nominee that led the CGN Committee to believe that the nominee should continue to serve on the Board:

Name and Age	Director Since	Occupation	Committee Memberships
Jean-Jacques Bienaimé, 65 <i>Chair of the Board</i>	May 2005	Chairman and Chief Executive Officer, BioMarin Pharmaceutical Inc.	
Willard Dere, M.D., 65 	July 2016	Professor of Internal Medicine, B. Lue and Hope S. Bettilyon Presidential Endowed Chair in Internal Medicine for Diabetes Research, Executive Director of Personalized Health, and Co-Principal Investigator of the Center for Clinical & Translational Science at the University of Utah Health Sciences Center	 
Michael Grey, 66 	December 2005	Executive Chairman, Amlyx Pharmaceuticals, Inc.; Executive Chairman, Mirum Pharmaceuticals, Inc.; Executive Chairman, Reneo Pharmaceuticals, Inc.; Executive Chairman, Spruce Biosciences, Inc.	 
Elaine J. Heron, Ph.D., 71 	July 2002	Director, Amlyx Pharmaceuticals, Inc.; Director, Vala Sciences Inc.; Director, Palvella Therapeutics; Director, Dropworks, Inc.	  
Robert J. Hombach, 53  	September 2017	Former Executive Vice President, Chief Financial Officer & Chief Operations Officer, Baxalta Inc.; Director, CarMax, Inc.; Director, Aptinyx Inc.	 
V. Bryan Lawlis, Ph.D., 67 	June 2007	Director, Coherus Biosciences, Inc.; Director, Geron Corporation; Director, Aeglea BioTherapeutics, Inc.; Director, Sutro Biopharma, Inc.	 
Alan J. Lewis, Ph.D., 73 	June 2005	Chief Executive Officer and Director, Diavacs, Inc.; Director, Assembly Biosciences, Inc.; Director, Scancell Holdings plc	 
Richard A. Meier, 59  	December 2006	Partner, AtlasRock&Co.; Former President-International and Executive Vice President and Chief Financial Officer, Owens & Minor, Inc.	
David E.I. Pyott, M.D. (Hon.), 65 	January 2016	Lead Director, Avery Dennison Corporation; Director, Alynham Pharmaceuticals, Inc.; Supervisory Board Member, Royal Philips in the Netherlands	 
Dennis J. Slamon, M.D., Ph.D., 70 	March 2014	Professor of Medicine, UCLA Department of Medicine; Director, Clinical/Translational Research at UCLA's Jonsson Comprehensive Cancer Center; Director, Revlon/UCLA Women's Cancer Research Program	 

AC Audit Committee

CGN Corporate Governance & Nominating Committee

 Member Financial Expert

CC Compensation Committee

S&T Science & Technology Committee

 Committee Chair Independent



JEAN-JACQUES BIENAIMÉ

Chairman & Chief Executive Officer,
BioMarin Pharmaceutical Inc.

Age: 65

Director Since: May 2005

The Board has nominated Mr. Bienaimé for his intimate knowledge of our business and extensive experience in the management of biotechnology organizations, business development, and sales and marketing of both biotechnology and pharmaceutical products.

Jean-Jacques Bienaimé joined our Board in May 2005, at the same time that he became our Chief Executive Officer, and was named Chair of the Board in June 2015. From November 2002 to April 2005, Mr. Bienaimé served as Chairman, Chief Executive Officer, and President of Genencor, a biotechnology company focused on industrial bioproducts and targeted cancer biotherapeutics. From 1998 to late 2002, Mr. Bienaimé served as Chairman, Chief Executive Officer and President of Sangstat Medical Corporation, an immunology-focused biotechnology company, becoming President in 1998 and Chief Executive Officer in 1999. From 1992 to 1998, Mr. Bienaimé held several senior management positions at Rhône-Poulenc Rorer Pharmaceuticals (now Sanofi-Aventis), culminating in the position of Senior Vice President of Worldwide Marketing and Business Development. Earlier in his career, Mr. Bienaimé worked at Genentech, Inc. where he was involved in the launch of tissue plasminogen activator (t-PA) for the treatment of heart attacks. Mr. Bienaimé currently serves on the board of Incyte Corporation, a public biotechnology company, as well as being a member of the boards of Biotechnology Innovation Organization (BIO) and Pharmaceutical Research and Manufacturers of America (PhRMA), both industry trade associations. Mr. Bienaimé previously served on the boards of three public companies: Portola Pharmaceuticals, Inc., from 2011 to 2014, InterMune, Inc., from 2012 to 2014, and Vital Therapies, Inc., from 2013 to 2018. Mr. Bienaimé received an M.B.A. from the Wharton School at the University of Pennsylvania and a degree in economics from the École Supérieure de Commerce de Paris.



WILLARD DERE, M.D.

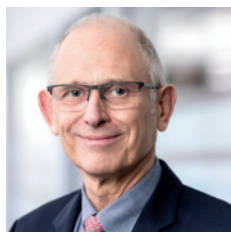
Professor of Internal Medicine, B. Lue and Hope S. Bettilyon Presidential Endowed Chair in Internal Medicine for Diabetes Research, Executive Director of Personalized Health, and Co-Principal Investigator of the Center for Clinical & Translational Science at the University of Utah Health Sciences Center

Age: 65

Director Since: July 2016

The Board has nominated Dr. Dere for his extensive experience in managing biotechnology and pharmaceutical organizations, clinical trial research as well as research and development in translating basic science discoveries into new clinical therapies and novel drug strategies.

Willard Dere, M.D., joined our Board in July 2016. Since November 2014, he has served as the Professor of Internal Medicine, B. Lue and Hope S. Bettilyon Presidential Endowed Chair in Internal Medicine for Diabetes Research, Executive Director of Personalized Health, and Co-Principal Investigator of the Center for Clinical & Translational Science at the University of Utah Health Sciences Center. He also serves as the Interim Associate Vice President for Research of Health Sciences, and Interim Vice-Dean for Research of the School of Medicine. Prior to re-joining academia in November 2014, Dr. Dere was in the biopharmaceutical industry for 25 years. From 2003 until his retirement in 2014, Dr. Dere held multiple roles at Amgen, Inc., a biotechnology company, including serving as head of global development and either the international or corporate chief medical officer from December 2004 to October 2014. He began his career at Eli Lilly in 1989, and held a number of different global roles in clinical pharmacology, regulatory affairs, and both early-stage translational, and late-stage clinical research. He serves on the boards of three public biopharmaceutical companies: Mersana Therapeutics, Inc., Radius Health, Inc., and Seres Therapeutics, Inc. and concluded his service to Ocera Therapeutics, Inc. in December 2017. Since 2014, he has served on the scientific advisory board of the California Institute of Regenerative Medicine. Dr. Dere received a B.A. and an M.D. from the University of California, Davis. He trained in internal medicine at the University of Utah and in endocrinology/metabolism at the University of California at San Francisco.



MICHAEL GREY

Executive Chairman, Amplyx Pharmaceuticals, Inc.;
Executive Chairman, Mirum Pharmaceuticals, Inc.;
Executive Chairman, Reneo Pharmaceuticals, Inc.;
Executive Chairman, Spruce Biosciences, Inc.

Age: 66

Director Since: December 2005

The Board has nominated Mr. Grey for his extensive experience in managing biotechnology and pharmaceutical organizations, business development, compensation matters and finance and accounting.

Michael Grey joined our Board in December 2005 and serves as the Chair of the Compensation Committee. Mr. Grey currently serves as Executive Chairman of Amplyx Pharmaceuticals, Inc., a biopharmaceutical company, a position he has held since December 2016, and previously served as President and Chief Executive Officer of Amplyx from October 2015 to December 2016. Mr. Grey also currently serves as Executive Chairman of Reneo Pharmaceuticals, Inc., a biopharmaceutical company, a position he has held since January 2018, and previously served as Chief Executive Officer from October 2014 to December 2017. He previously served as President and Chief Executive Officer of Lumena Pharmaceuticals, Inc., a private biotechnology company, from February 2011 until it was acquired by Shire plc in May 2014. He has also served as a Venture Partner with Pappas Ventures, a life sciences venture capital firm, since January 2010. Between January and September 2009, he served as President and Chief Executive Officer of Auspex Pharmaceuticals, Inc., a private biotechnology company. From January 2005 until its acquisition in August 2008, Mr. Grey was President and Chief Executive Officer of SGX Pharmaceuticals, Inc., a public biotechnology company, where he previously served as President from June 2003 to January 2005 and as Chief Business Officer from April 2001 until June 2003. Prior to joining SGX Pharmaceuticals, Inc., Mr. Grey acted as President, Chief Executive Officer and board member of Trega Biosciences, Inc., a biotechnology company. From November 1994 to August 1998, Mr. Grey was the President of BioChem Therapeutic, Inc., the pharmaceutical operating division of BioChem Pharma, Inc. During 1994, Mr. Grey served as President and Chief Operating Officer for Ansan, Inc., a pharmaceutical company. From 1974 to 1993, he served in various roles with Glaxo, Inc. and Glaxo Holdings, plc, culminating in the position of Vice President, Corporate Development. Mr. Grey is currently a Director of Horizon Pharma, plc, a public pharmaceutical company, Mirati Therapeutics, a public biopharmaceutical company, and a private healthcare company: Spruce Biosciences, Inc., where he serves as Executive Chairman. Mr. Grey is also Executive Chairman of Mirum Pharmaceuticals, Inc., a private company he founded in 2018. Mr. Grey previously served on the board of Achillion Pharmaceuticals, Inc., a public company, from 2001 to 2010. He received a B.Sc. in chemistry from the University of Nottingham, United Kingdom.



ELAINE J. HERON, PH.D.

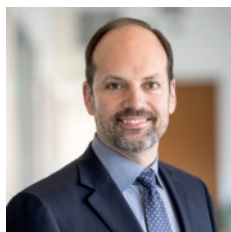
Director, Amplyx Pharmaceuticals, Inc.; Director,
Vala Sciences Inc.; Director, Palvella Therapeutics;
Director, Dropworks, Inc.

Age: 71

Director Since: July 2002

The Board has nominated Dr. Heron for her extensive experience in life science sales and marketing, finance and accounting, corporate governance matters and research and development.

Elaine J. Heron, Ph.D., joined our Board in July 2002 and serves as the Chair of the Corporate Governance and Nominating Committee. Dr. Heron served as Chair and Chief Executive Officer of Amplyx Pharmaceuticals, Inc., a private early-stage drug development company, from February 2009 until October 2015, and she continues to serve as member of that company's board. She is also a Director of Vala Sciences Inc., a private life science tools company, Palvella Therapeutics, a private early-stage therapeutics company and Dropworks, Inc., a medical diagnostic company. From July 2001 to October 2008, Dr. Heron was Chair and Chief Executive Officer of Labcyte Inc., a private biotechnology company. Before joining Labcyte Inc., she spent six years in positions of increasing responsibility at the Applied Biosystems Group of Applied Biosystems Corporation, a biotechnology company, including the position of General Manager and Vice President of Sales and Marketing. Dr. Heron earned a B.S. in chemistry with highest distinction and a Ph.D. in analytical biochemistry from Purdue University and an M.B.A. from Pepperdine University.



ROBERT J. HOMBACH

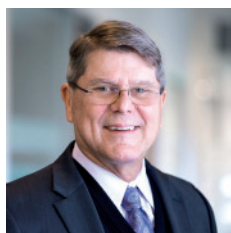
Former Executive Vice President, Chief Financial Officer & Chief Operations Officer, Baxalta Inc.; Director, CarMax, Inc.; Director, Aptinyx Inc.

Age: 53

Director Since: September 2017

The Board has nominated Mr. Hombach for his extensive experience in finance and accounting, capital markets and managing large biotechnology and pharmaceutical organizations.

Robert J. Hombach joined our Board in September 2017 and currently serves as the Chair of the Audit Committee. He served as Executive Vice President, Chief Financial Officer and Chief Operations Officer of Baxalta Inc., a public biopharmaceutical company spun out in June 2015 from Baxter International Inc., a public pharmaceutical company, until it was acquired by Shire PLC in June 2016. He served as Corporate Vice President and Chief Financial Officer of Baxter from July 2010 until the spin-off in June 2015. From 2007 to 2011, he also served as Treasurer of Baxter and from 2004 to 2007, he was Vice President of Finance, Europe, Middle East and Africa. Prior to that, he served in a number of finance positions of increasing responsibility in the corporate planning, manufacturing, operations and treasury areas at Baxter. Mr. Hombach currently serves on the board of CarMax, Inc., a public company and in 2018 was appointed to the board of Aptinyx Inc., a public biopharmaceutical company. Previously, he served on the board of Naurex, Inc., a private pharmaceutical company acquired by Allergan in 2015. Mr. Hombach earned an M.B.A. from Northwestern University's J.L. Kellogg Graduate School of Management, and a B.S. in Finance cum laude from the University of Colorado.



V. BRYAN LAWLIS, PH.D.

Director, Coherus Biosciences, Inc.; Director, Geron Corporation; Director, Aeglea BioTherapeutics, Inc.; Director, Sutro Biopharma, Inc.

Age: 67

Director Since: June 2007

The Board has nominated Dr. Lawlis for his extensive experience in manufacturing biotechnology and other pharmaceutical products, research and development of drug products and managing and conducting clinical trials and drug regulatory processes.

Bryan Lawlis, Ph.D., joined our Board in June 2007. From August 2011 to September 2017 he served as the President and Chief Executive Officer of Itero Biopharmaceuticals, LLC, a private holding company that held the assets of Itero Biopharmaceuticals, Inc., a private biotechnology company. Dr. Lawlis co-founded and served as President and Chief Executive Officer of Itero Biopharmaceuticals, Inc. from 2006 until it discontinued operations in August 2011. Dr. Lawlis served as President and Chief Executive Officer of Aradigm Corporation, a pharmaceutical company, from August 2004 to August 2006, and served on its board from February 2005 to August 2006, continuing in both capacities until August 2006. Dr. Lawlis previously served as Aradigm's President and Chief Operating Officer from June 2003 to August 2004 and its Chief Operating Officer from November 2001 to June 2003. Prior to his time at Aradigm, Dr. Lawlis co-founded Covance Biotechnology Services, a contract biopharmaceutical manufacturing operation, and served as its President and Chief Executive Officer from 1996 to 1999, and as its Chairman from 1999 to 2001, when it was sold to Diosynth RTP, Inc., a division of Akzo Nobel, NV. From 1981 to 1996, Dr. Lawlis was employed at Genencor, Inc., a biotechnology company, and Genentech, Inc. His last position at Genentech, Inc. was Vice President of Process Sciences. Dr. Lawlis serves on the boards of four other public biopharmaceutical companies: Geron Corporation since March 2012, Coherus Biosciences, Inc. since October 2014, Aeglea BioTherapeutics, Inc. since July 2018 and at Sutro Biopharma, Inc. since it went public in September 2018. He previously served on the board of KaloBios Pharmaceuticals, Inc., a public biopharmaceutical company, from August 2013 until September 2014, and acted as the Chairman of the scientific advisory board for Coherus from November 2012 to June 2016. Dr. Lawlis holds board positions at two private companies: AbSci, LLC and Reform Biologics LLC. Since October 2015, Dr. Lawlis has served as an advisor to Phoenix Venture Partners, a venture capital firm focusing on manufacturing technologies and material sciences technologies. Dr. Lawlis holds a B.A. in microbiology from the University of Texas at Austin, and a Ph.D. in Biochemistry from Washington State University.

**ALAN J. LEWIS, PH.D.**

Chief Executive Officer and Director, Diavacs, Inc.;
 Director, Assembly Biosciences, Inc.;
 Director, Scancell Holdings plc

Age: 73**Director Since:** June 2005

The Board has nominated Dr. Lewis for his extensive experience in managing biotechnology and pharmaceutical organizations, research and development, finance, compensation and corporate governance matters.

Alan J. Lewis, Ph.D., joined our Board in June 2005 and serves as the Chair of the Science and Technology Committee. Since March 2015, Dr. Lewis has served as Chief Executive Officer of DiaVacs, Inc., a private biotechnology company, where he also serves as Director. From October 2012 to March 2014, Dr. Lewis served as Chief Executive Officer and Director of Medistem, Inc. (Medistem), a public biotechnology company. From November 2011 to October 2012, he served as a consultant to Medistem and to the California Institute for Regenerative Medicine. From July 2010 to November 2011, Dr. Lewis served as President, Chief Executive Officer and Director of Ambit Biosciences, a private biotechnology company. From January 2009 to June 2010, Dr. Lewis served as President and Chief Executive Officer of The Juvenile Diabetes Research Foundation. From February 2006 until December 2008, Dr. Lewis was the President and Chief Executive Officer of Novocell, Inc., a private regenerative disease biotechnology company focused on stem cell therapy. Prior to joining Novocell Inc., starting in 2000, he was President of Celgene Signal Research, a wholly-owned subsidiary of the Celgene Corporation, a pharmaceutical company. From February 1994 to August 2000, he was the President and Chief Executive Officer of Signal Pharmaceuticals, Inc., where he guided the company to its successful acquisition by Celgene Corporation. From 1979 to 1994, Dr. Lewis held a number of positions at Wyeth-Ayerst Research and its predecessor, Wyeth Laboratories, Inc., including Vice President of Research at Wyeth-Ayerst Research. Dr. Lewis has published over 120 full manuscripts and has written and edited seven books. Dr. Lewis was a Research Associate at Yale University from 1972 to 1973. In December 2015, Dr. Lewis was appointed to the board of Assembly Biosciences, Inc., a public biotechnology company. In February 2016, Dr. Lewis was appointed to the board of Scancell Holdings plc, a public biotechnology company. Dr. Lewis currently serves as Chairman of the boards of Batu Biologics Inc. and Neurometrix Rx (US), both private biotechnology companies, and he is a Director of two other private biotechnology companies: Cellastra Inc. and Targazyme, Inc. Dr. Lewis received a B.Sc. in physiology and biochemistry from Southampton University, Southampton, Hampshire, United Kingdom, and a Ph.D. in pharmacology from the University of Wales, Cardiff, United Kingdom.

**RICHARD A. MEIER**

Partner, AtlasRock&Co.; Former President-
 International and Executive Vice President and Chief
 Financial Officer, Owens & Minor, Inc.

Age: 59**Director Since:** December 2006

The Board has nominated Mr. Meier for his extensive experience in finance and accounting, capital markets, managing large organizations in the healthcare field and information technology.

Richard A. Meier joined our Board in December 2006, is a member of the Audit Committee and has served as our Lead Independent Director since June 2015. Currently, Mr. Meier is a partner with AtlasRock&Co., an investment and advisory firm, a position he has held since August 2018. Mr. Meier served as President-International and Executive Vice President and Chief Financial Officer of Owens & Minor, Inc., a global healthcare services company, from July 2015 to July 2018, and was Executive Vice President and Chief Financial Officer of Owens & Minor, Inc. from March 2013 to July 2015. Prior to joining Owens & Minor, Mr. Meier was an Executive Vice President and Chief Financial Officer at TeleFlex, Incorporated, a global medical device company from January 2010 through March 2012. Mr. Meier served as President and Chief Operating Officer of Advanced Medical Optics, a global ophthalmic medical device company that was acquired by Abbott in February 2009, from November 2007 to May 2009. Beginning in April 2002 through November 2007, Mr. Meier served continuously as Advanced Medical Optics' Chief Financial Officer, while serving in a variety of additional senior operating roles including Chief Operating Officer. Prior to joining Advanced Medical Optics, Mr. Meier was the Executive Vice President and Chief Financial Officer of Bausch Health Companies, Inc. (BHC) (formerly Valeant Pharmaceuticals, Inc. and ICN Pharmaceuticals, Inc.), from October 1999 to April 2002, and Senior Vice President & Treasurer from May 1998 to October 1999. Before joining BHC, Mr. Meier was an executive with the investment banking firm of Schroder & Co. Inc. in New York, from 1996. Prior to Mr. Meier's experience at Schroder & Co., he held various financial and banking positions at Salomon Smith Barney, Manufacturers Hanover Corporation, Australian Capital Equity, and Greyhound Lines, Inc. Mr. Meier was a Director of Staar Surgical Inc., an ophthalmic medical device company, from 2009 through June 2016, where he also served on the Governance, Compensation and Audit Committees. Mr. Meier holds a B.A. in economics from Princeton University. Mr. Meier successfully completed formal credit training program at Manufacturers Hanover Corporations and attended Southern Methodist University Cox School of Business.



DAVID E.I. PYOTT, M.D. (HON.)

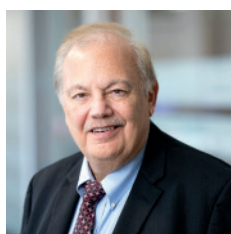
Lead Director, Avery Dennison Corporation;
Director, Alnylam Pharmaceuticals, Inc.;
Supervisory Board Member, Royal Philips in
the Netherlands

Age: 65

Director Since: January 2016

The Board has nominated Dr. Pyott for his extensive experience in managing global multi-specialty healthcare companies and marketing, research and development, international regulatory requirements and business development in the pharmaceutical and biotechnology industry.

David E.I. Pyott, M.D. (Hon.), joined our Board in January 2016. From 1998 to March 2015, Dr. Pyott served as Chief Executive Officer of Allergan, Inc., a global pharmaceutical company. Prior to Allergan, Dr. Pyott served as the Head of the Novartis Nutrition Division and as a member of the Executive Committee of Switzerland-based Novartis AG. Dr. Pyott is Lead Director and a member of the board of Avery Dennison Corporation, a public global labeling and packaging materials company, serves on the board of Alnylam Pharmaceuticals, Inc., a public biotechnology company and is a member of the Supervisory Board of Royal Philips in the Netherlands, a public diversified health and technology company. Dr. Pyott serves as Chairman of Bioniz Therapeutics, Inc., a private biotechnology company, and also serves on the board of Rani Therapeutics, LLC, a private biotechnology company. He is Deputy Chairman of the Governing Board of the London Business School, is a member of the Board of Trustees of the California Institute of Technology, President of the International Council of Ophthalmology Foundation and a member of the advisory board of the Foundation of the American Academy of Ophthalmology. Previously, Dr. Pyott served on the board of Edwards Lifesciences Corp., a public medical device company, from 2000 to 2014. Dr. Pyott holds a Diploma in International and European Law from the Europa Institute at the University of Amsterdam, an Honorary Degree in Medicine and a Master of Arts degree from the University of Edinburgh, and a Master of Business Administration degree from the London Business School.



DENNIS J. SLAMON, M.D., PH.D.

Professor of Medicine, UCLA Department
of Medicine; Director, Clinical/Translational
Research at UCLA's Jonsson Comprehensive
Cancer Center; Director, Revlon/UCLA Women's
Cancer Research Program

Age: 70

Director Since: March 2014

The Board has nominated Dr. Slamon for his extensive experience in clinical trial research, personalized medicine, hematology and oncology studies as well as research and development in translating basic science discoveries into new clinical therapies and novel drug strategies.

Dennis J. Slamon, M.D., Ph.D., joined our Board in March 2014. Dr. Slamon has served as Director of Clinical/Translational Research at UCLA's Jonsson Comprehensive Cancer Center since June 1995 and has served as leader of the Revlon/UCLA Women's Cancer Research Program at UCLA since its establishment in 1991. Since May 1996, Dr. Slamon has been a professor of medicine and Chief of the Division of Hematology/Oncology in the UCLA Department of Medicine and executive vice chair for research for UCLA's Department of Medicine. He also serves as Director of the medical advisory board for the National Colorectal Cancer Research Alliance, a research and fund-raising organization that promotes advances in the treatment of colorectal cancer, and he is member of the board of Translational Research in Oncology, a global, non-profit, academic clinical research organization. A 1970 B.A. honors graduate in biology from Washington & Jefferson College and a 1975 graduate of the University of Chicago Pritzker School of Medicine, Dr. Slamon earned his Ph.D. in cell biology that same year. He completed his internship and residency at the University of Chicago Hospitals and Clinics, becoming chief resident in 1978. One year later, he became a fellow in the Division of Hematology/Oncology at UCLA where he currently serves on the faculty of medicine.

Director Independence

The Board has affirmatively determined that, except for Mr. Bienaimé, all of our current Directors are independent within the meaning of the applicable listing standards of The Nasdaq Stock Market LLC (Nasdaq) and relevant securities and other laws, rules and regulations regarding the definition of "independent" (the Independent Directors). There are no family relationships among any of our Directors and any of our executive officers.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF EACH NAMED NOMINEE NAMED IN PROPOSAL NO. ONE.

Identifying and Evaluating Candidates for Director

The CGN Committee uses a variety of methods for identifying and evaluating nominees for Director. The CGN Committee, in consultation with the Chair and Lead Independent Director, regularly assesses the composition of the Board and each committee of the Board to evaluate its effectiveness and whether or not changes should be considered to either the Board or any of the committees. The full Board annually determines the diversity of specific skills and characteristics that could improve the overall quality and ability of the Board to carry out its oversight of the Company and other functions.

In September 2018, the Board formalized its long-standing practice of considering women and minority candidates for open director positions by amending the Corporate Governance Principles to require that:

- the Board considers the diversity of specific skills and characteristics (including, without limitation, areas of expertise, race, ethnicity and gender) necessary for the optimal functioning of the Board over both the short and long term; and
- the CGN Committee, as well as any search firm that it engages, includes women and minority candidates in the pool from which the Board selects candidates for director.

The Board has determined that the Board as a whole must have the right diversity, mix of characteristics and skills for the optimal functioning of the Board in its oversight of our Company. The Board believes that it should be composed of persons with skills and experience in areas such as:

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|--|---|--|
| <ul style="list-style-type: none"> • biotechnology and pharmaceutical organizations (management, business development, sales & marketing); • clinical trial research; • compensation matters; | <ul style="list-style-type: none"> • finance and accounting; • manufacturing biotechnology and other; pharmaceutical products; • U.S. and international drug regulatory processes; | <ul style="list-style-type: none"> • legal and intellectual property; • corporate governance; and • research and development. |
|--|---|--|

Once the CGN Committee and the Board determine that it is appropriate to nominate a new Director, the CGN Committee uses a flexible set of procedures for selecting individual Director candidates. The CGN Committee utilizes general guidelines that allow it to adjust the process to best satisfy the objectives it is attempting to accomplish in any Director search. The first step in the general process is to identify the type of candidate the CGN Committee may desire for a particular opening, including establishing the specific target skill areas, experiences and backgrounds that are to be the focus of the Director search. Once the target characteristics are identified, the CGN Committee determines the best method for finding a candidate who satisfies the specified criteria. The CGN Committee may consider candidates recommended by management, by the members of the CGN Committee, the Board, and stockholders, or the CGN Committee may engage a third party to conduct a search for possible candidates. In considering candidates submitted by stockholders, the CGN Committee will take into consideration the needs of the Board and the qualifications of the candidate. Any stockholder recommendations submitted for consideration by the CGN Committee should include verification of the stockholder status of the person submitting the recommendation and the recommended candidate's name and qualifications for Board membership and be addressed to the Board, at 105 Digital Drive, Novato, CA 94949, c/o G. Eric Davis, Executive Vice President, General Counsel and Secretary.

Once candidates are identified, the CGN Committee conducts an evaluation of qualified candidates. The evaluation generally includes interviews as well as background and reference checks. There is no difference in the evaluation process for a candidate recommended by a stockholder as compared to the evaluation process for a candidate identified by any of the other means described above. While the CGN Committee has not established specific minimum criteria for a candidate, it has established important factors to consider in evaluating a candidate. These factors include: strength of character, mature judgment, business understanding, experience with the pharmaceutical and/or biotechnology industries, availability and level of interest, capacity to devote time to Board activities, career specialization, relevant technical skills, diversity, and the extent to which the candidate would fill a present need on the Board.

If the CGN Committee determines that a candidate should be nominated as a candidate for election to the Board, the candidate's nomination is then recommended to the full Board, and the Directors may in turn conduct their own review to the extent they deem appropriate. When the Board has agreed upon a candidate, such candidate is recommended to the stockholders for election at an Annual Meeting of Stockholders or appointed as a Director by a vote of the Board as appropriate.

Stockholder Nominations

In addition, our Amended and Restated Bylaws, as amended (Bylaws), permit stockholders to nominate Directors (i) for inclusion in our proxy materials and consideration at an Annual Meeting of Stockholders pursuant to our proxy access bylaw and (ii) for consideration at an Annual Meeting of Stockholders without being included in our proxy materials. For a description of the process for nominating Directors in accordance with our Bylaws, see the section of this Proxy Statement titled, “Additional Information—Questions and Answers about these Proxy Materials and Voting,” including the information under the headings, “How can I recommend a Director nominee for consideration by the CGN Committee?” and “When are other proposals and Director nominations for next year’s Annual Meeting due?” All of the current Directors have been recommended by the CGN Committee to the Board for re-election as our Directors at the Annual Meeting, and the Board has approved such recommendations.

The Board’s Roles and Responsibilities

This section describes key corporate governance guidelines and practices that we have adopted. Complete copies of our Corporate Governance Principles, the charters of the committees of the Board and our Global Code of Conduct and Business Ethics described below may be found in the Corporate Governance section of the Investors section of our website at www.bmm.com. Alternatively, you can request a copy of any of these documents free of charge by writing to: G. Eric Davis, Executive Vice President, General Counsel and Secretary, c/o BioMarin Pharmaceutical Inc., 105 Digital Drive, Novato, CA 94949. Information on our website is NOT incorporated by reference in this Proxy Statement.

Board Leadership Structure

The Board believes that it is important to retain the flexibility to allocate the responsibilities of the offices of Chair of the Board (Chair) and Chief Executive Officer in any manner that it determines to be in the best interests of the Company and its stockholders. Accordingly, our Corporate Governance Principles specifically reserve for the Board the right to vest the responsibilities of Chair and Chief Executive Officer in the same individual. The Board reviews its leadership structure periodically as part of its annual self-assessment process. In addition, the Board continues to monitor developments in corporate governance as well as the approaches of our peers.

Following a careful review of its leadership structure in light of the composition of the Board, the Company’s size, the nature of the Company’s business, the regulatory framework under which the Company operates, and other relevant factors, and to better align the operational leadership of the Company, in 2015 the Board determined that combining the Chair and Chief Executive Officer positions under the leadership of Jean-Jacques Bienaimé would be in the best interests of the Company and its stockholders. This determination was based on the Board’s strong belief that, as the individual with primary responsibility for managing the Company’s day-to-day operations and with extensive knowledge and understanding of the Company, combining the roles of Chair and Chief Executive Officer in Mr. Bienaimé creates a clear line of authority that promotes decisive and effective leadership, both within and outside the Company. In making this judgment, the Board took into account its evaluation of Mr. Bienaimé’s performance as Chief Executive Officer and as a current member of the Board, his positive relationship with the other Directors, his vast expertise in the biopharmaceutical industry and proven track record of successful leadership, and the strategic perspective he would bring to the role of Chair. Mr. Bienaimé assumed the role of Chair effective immediately following the 2015 Annual Meeting.

The **Chair** is responsible for:

- calling meetings of the Board;
- presiding at meetings of the Board;
- approving Board meeting schedules and meeting agendas, in consultation with the Lead Independent Director;
- approving Board meeting materials, in consultation with the Lead Independent Director; and
- being available for consultation with major stockholders.

The Board recognizes the importance of having a Board structure that will continue to promote the appropriate exercise of independent judgment by the Board. In connection with the decision to combine the roles of Chair and Chief Executive Officer under Mr. Bienaimé, the Board also created the position of Lead Independent Director to serve as a liaison between the Chief Executive Officer and the Independent Directors, and to facilitate discussions and deliberation among the Independent Directors in fulfilling their oversight responsibilities for the Company.

The Lead Independent Director coordinates the activities of the other Independent Directors and performs such other duties and responsibilities as the Board may determine. The Lead Independent Director Charter can be found in the Corporate Governance section of the Investors section of our website at www.bmm.com. Information on our website is NOT incorporated by reference in this Proxy Statement.

As outlined in the Lead Independent Director Charter, the **Lead Independent Director** is responsible for:

- presiding at all meetings of the Board at which the Chair is not present, including executive sessions of the Independent Directors;
- serving as the principal liaison between the Chair and the Independent Directors;
- approving meeting agendas for the Board, in consultation with the Chair;
- approving the frequency of Board meetings and meeting schedules in consultation with the Chair, assuring there is sufficient time for discussion of all agenda items;
- working in collaboration with the CGN Committee and the Chair to recommend selection for the membership and chair position for each Board committee;
- interviewing, along with the chair of the CGN Committee, all director candidates and making recommendations to the CGN Committee;
- being available, when appropriate, for consultation and direct communication with stockholders; and
- on an annual basis, in consultation with the Independent Directors, reviewing the Lead Independent Director Charter and recommending to the Board for approval any modifications or changes.

The Lead Independent Director Charter also grants the Lead Independent Director the authority to:

- call meetings of the Independent Directors or meetings of the Board;
- retain outside advisors and consultants who report directly to the Board on Board-wide issues; and
- select, retain and consult with outside counsel and other advisors as the Lead Independent Director deems appropriate, at the Company's sole expense.

The Lead Independent Director is elected annually by a majority vote of the Independent Directors if the offices of Chair and Chief Executive Officer are held by the same person. In 2018, the Independent Directors determined that Richard A. Meier will continue to serve as the Lead Independent Director.

The Board, including each of its committees, also has complete and open access to any member of the Company's management and the authority to retain independent advisors as the Board or such committee deems appropriate. In addition, all members of the Audit Committee, the CGN Committee, the Compensation Committee and the Science and Technology Committee are Independent Directors, and the committee chairs have authority to hold executive sessions without management and non-Independent Directors present.

Role of the Board in Risk Oversight

The Board is actively involved in the oversight of risks that could affect us. This oversight is conducted primarily through committees of the Board, but the full Board has retained responsibility for general oversight of risks. The Audit Committee is responsible for reviewing legal proceedings, litigation contingencies and other risks and exposures that could materially affect our financial statements and meets periodically with management to review our major financial risk exposures and the steps management has taken to monitor and control such exposures. The CGN Committee oversees and evaluates compliance by the Board and management with our Corporate Governance Principles, Global Code of Conduct and Business Ethics and Corporate Compliance and Ethics Program and reviews the Company's risk management procedures for those areas deemed appropriate by the CGN Committee. The Compensation Committee reviews our incentive compensation arrangements to determine whether they encourage excessive risk taking, reviews and discusses at least annually the relationship between our risk management policies and practices and compensation, evaluates compensation policies and practices that could mitigate any such risk. The Board satisfies this responsibility through full reports by each committee chair regarding such committee's considerations and actions, as well as through regular reports directly from officers responsible for oversight of particular risks.

Talent Management Succession Planning

Our Board regularly reviews short- and long-term succession plans for the Chief Executive Officer and for other senior management positions. Our executive leadership conducts annual performance assessments that include succession plans for each of our senior management positions. These succession plans are reviewed and approved by our Chief Executive Officer and the details of these succession plans, including potential successors of our executive officers are presented to the full Board.

Stockholder Communications with the Board of Directors

Our relationship with our stockholders is an important part of our corporate governance program. Engaging with our stockholders helps us to understand how they view us, to set goals and expectations for our performance, and to identify emerging issues that may affect our strategies, corporate governance, compensation practices or other aspects of our operations. Our stockholder and investor outreach includes investor road shows, analyst meetings, and investor conferences and meetings. Last year we hosted an investor day that stockholders were able to listen to via our website. We also communicate with stockholders and other stakeholders through various media, including our annual report and SEC filings, proxy statement, news releases, and our website. Our conference calls for quarterly earnings releases are open to all. These calls are available in real time and as archived webcasts on our website for a period of time. We also seek stockholder views on governance and other matters throughout the year, concentrating our efforts on our largest stockholders.

We continue to engage constructively with stockholders, and in recent years management has reached out to a large number of our top non-affiliated stockholders annually. For details regarding our stockholder outreach efforts specific to 2018, please see the “Proxy Overview—Stockholder Engagement” and “Compensation Discussion and Analysis — Recent Say-on-Pay Vote and Stockholder Feedback” sections of this Proxy Statement.

The Board has adopted a process for stockholders and others to send communications to the Board or any Director. All such communications should be sent by mail addressed to the Board or any particular Director at 105 Digital Drive, Novato, CA 94949, c/o G. Eric Davis, Executive Vice President, General Counsel and Secretary. All communications received by Mr. Davis will be sent directly to the Board or any particular Director to whom such communication was addressed.

Committees of the Board of Directors

The Board has a number of committees that perform certain functions for the Board. The standing committees of the Board that meet regularly are the Audit Committee, the Compensation Committee, the CGN Committee and the Science and Technology Committee. Below is a description of each committee of the Board. 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 has determined that each member of each committee meets the applicable Nasdaq listing standards and relevant securities and other laws, rules and regulations regarding “independence” and that each member is free of any relationship that would impair his or her individual exercise of independent judgment with regard to our Company.



AUDIT COMMITTEE

Chair: Robert J. Hombach

Members: Elaine J. Heron, Ph.D., V. Bryan Lawlis, Ph.D., Richard A. Meier

Meetings Held in 2018: 8

The Board has a separately designated standing Audit Committee established in accordance with the rules of the SEC and Nasdaq. The Audit Committee is responsible for overseeing our accounting and financial reporting processes, internal control and risk management systems, internal and external audit functions and the audit of our financial statements, including reviewing:

- financial information;
- our systems of internal accounting and financial controls;
- the annual independent audit of our financial statements; and
- the qualifications, independence and performance of our independent outside auditors for the purpose of preparing or issuing an audit report or performing other audit, review and attest services.

Among other duties and responsibilities, the Audit Committee:

- reviews and discusses with management and the independent auditors our annual and quarterly financial statements, and as appropriate, our disclosures contained under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our periodic reports to be filed with the SEC, earnings press releases and the substance of the financial information and earnings guidance provided to analysts and ratings agencies;
- determines whether to recommend to the Board inclusion of the audited financial statements in our Form 10-K filing;
- at the completion of the annual audit, reviews with management and the independent auditors the independent auditors’ audit and its report on the financial statements and internal control over financial reporting, comments and recommendations of the independent auditors, any significant changes in the auditors’ initial audit plan, and other matters related to the audit;
- reviews legal proceedings, litigation contingencies and other risks and exposures that could materially affect the financial statements and meets periodically with management to review our major financial risk exposures and the steps management has taken to monitor and control such exposures;
- reviews the independence of our auditors and appoints and, where appropriate, replaces our independent auditors;
- approves all arrangements and fees for work, including all audit, review and attest services and non-audit services, to be performed by the independent auditor’s firm prior to the commencement of the engagement;
- reviews with the independent auditors and, if appropriate, management, any management or internal control letter issued or proposed to be issued by the independent auditors and management’s response to such letter;
- reviews with management and any registered public accounting firm engaged to perform review or attest services, any material conflicts or disagreements between management and such accounting firm regarding financial reporting, accounting practices or policies or other matters;
- reviews with the independent auditors that firm’s assessment of our financial staff (including internal audit) and the adequacy and effectiveness of the our financial and accounting internal controls; and
- establishes and oversees procedures for the receipt, retention and treatment of complaints we receive regarding accounting, internal accounting controls, or auditing matters and the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters.

The Audit Committee is currently composed of four Directors: Mr. Hombach (Chair), Dr. Heron, Dr. Lawlis and Mr. Meier. The Board annually reviews the Nasdaq listing standards’ definition of independence for Audit Committee members and has determined that all members of our Audit Committee are independent (as independence is currently defined in Nasdaq Listing Rules 5605(c)(2)(A)(i) and (ii)). The Board has determined that Mr. Hombach and Mr. Meier each qualify as an “audit committee financial expert,” as defined in applicable SEC rules. The Board made a qualitative assessment of Mr. Hombach’s level of knowledge and experience based on a number of factors, including his prior experience as the Chief Financial Officer of public companies and his experience and education in finance. Likewise, the Board made a qualitative assessment of Mr. Meier’s level of knowledge and experience based on a number of factors, including his experience as the Chief Financial Officer of several public companies and his finance and investment banking experiences. In making those determinations with respect to each of Mr. Hombach and Mr. Meier, the Board relied on the past business experience of these Directors. Please see the description of the business experience for Mr. Hombach and Mr. Meier under the heading “*Nominees for Director.*”

The Audit Committee is governed by a written charter adopted by the Board, which was last amended in February 2016. The Audit Committee charter can be found in the Corporate Governance section of the Investors section of our website at www.bmm.com. Information on our website is NOT incorporated by reference in this Proxy Statement. The charter of the Audit Committee grants the Audit Committee full access to all of our books, records, facilities and personnel, as well as authority to obtain, at our expense, advice and assistance from internal and external legal, accounting or other advisors and consultants and other external resources that the Audit Committee considers necessary or appropriate in the performance of its duties.

As required by its charter, the Audit Committee conducts a self-evaluation at least annually. The Audit Committee also periodically reviews and assesses the adequacy of its charter, including the Audit Committee’s role and responsibilities, and recommends any proposed changes to the Board for its consideration.



COMPENSATION COMMITTEE

Chair: Michael Grey

Members: Robert J. Hombach, Alan J. Lewis, Ph.D., David E.I. Pyott, M.D. (Hon.)

Meetings Held in 2018: 5

The Compensation Committee is responsible for:

- reviewing and recommending to the Board changes to the compensation of our Chief Executive Officer and approving the compensation for executives who report directly to the Chief Executive Officer;
- assisting the Board in its oversight of the development, implementation and effectiveness of our policies and strategies relating to our human resources function;
- overseeing our incentive compensation plans and equity-based plans; and
- preparing any report on executive compensation required by applicable rules and regulations.

Among other duties and responsibilities, the Compensation Committee:

- makes recommendations to the Board as to our general compensation philosophy and oversees the development and implementation of compensation programs (including salary, long-term incentives, bonuses, perquisites, equity incentives, severance arrangements, change of control related arrangements and other related benefits and benefit plans);
- makes recommendations to the Board regarding corporate performance goals and objectives relevant to the compensation of the Chief Executive Officer and sets performance goals and objectives relevant to the compensation of executives who report directly to the Chief Executive Officer and other senior management, and the type and amount of compensation (including any new compensation programs);
- evaluates, at least annually, the performance of the Chief Executive Officer relative to Board-approved goals and objectives, and recommends to the Board the Chief Executive Officer's compensation and other terms of his or her employment based on this evaluation, and approves the compensation of executives who report directly to the Chief Executive Officer;
- taking into consideration the results of the most recent say-on-pay vote, reviews and makes recommendations to the Board with respect to our incentive compensation plans and equity-based plans;
- reviews material compensation programs applicable to our employees generally;
- reviews and makes recommendations to the Board regarding compensation for non-employee members of the Board;
- oversees all incentive compensation plans and equity-based plans and discharges any responsibilities imposed on the Committee by these plans;
- discusses with management periodically, as it deems appropriate, reports from management regarding the development, implementation and effectiveness of our policies and strategies relating to its human resources function and our regulatory compliance with respect to compensation matters;
- reviews and periodically approves the benefits and perquisites provided to the Chief Executive Officer and other senior management, as well as the employment, severance and change in control agreements relating to the Chief Executive Officer and other senior management;
- reviews our incentive compensation arrangements to determine whether they encourage excessive risk-taking, and reviews and discusses at least annually the relationship between our risk management policies and practices and compensation;
- reviews and recommends to the Board for approval the frequency with which we will conduct say-on-pay votes; and
- produces and provides to the Board an annual report of the Committee on executive compensation for inclusion in our annual proxy statement in accordance with applicable rules and regulations.

The Compensation Committee is currently composed of four Directors: Mr. Grey (Chair), Mr. Hombach, Dr. Lewis and Dr. Pyott. The Board has determined that all members of our Compensation Committee are independent (as independence is currently defined in Nasdaq Listing Rule 5605(a)(2)).

The Compensation Committee is governed by a written charter adopted by the Board, which was last amended in June 2016. The Compensation Committee charter can be found in the Corporate Governance section of the Investors section of our website at www.bmrn.com. Information on our website is NOT incorporated by reference in this Proxy Statement. The charter of the Compensation Committee grants the Compensation Committee full access to all of our books, records, facilities and personnel, as well as authority to obtain, at our expense, advice and assistance from internal and external legal, accounting or other advisors and consultants and other external resources that the Compensation Committee considers necessary or appropriate in the performance of its duties. In particular, the Compensation Committee has the sole authority to retain compensation consultants to assist in its evaluation of executive and Director compensation, including the authority to approve the consultant's reasonable fees and other retention terms. Information regarding consultants engaged by the Compensation Committee is provided in the *"Compensation Discussion and Analysis"* section of this Proxy Statement.

Under the Compensation Committee charter, the Compensation Committee may, in its discretion, delegate its duties to a subcommittee or to the Chair of the Compensation Committee.

As required by its charter, the Compensation Committee conducts a self-evaluation at least annually. The Compensation Committee also periodically reviews and assesses the adequacy of its charter, including the Compensation Committee's role and responsibilities, and recommends any proposed changes to the Board for its consideration.

The performance and compensation process and specific determinations of the Compensation Committee with respect to executive compensation for 2018 and certain elements of compensation for 2018 are described in greater detail in the *"Compensation Discussion and Analysis"* section of this Proxy Statement.

Compensation Committee Interlocks and Insider Participation

During 2018, the Compensation Committee was composed of Mr. Grey (Chair), Mr. Hombach, Dr. Lewis and Dr. Pyott. No member of our Compensation Committee has ever been an executive officer or employee of us or any of our subsidiaries. None of our executive officers currently serves, or has served during the last completed fiscal year, on the compensation committee or Board of Directors of any other entity that has one or more executive officers serving as a member of our Board or Compensation Committee. During 2018, no members of our Compensation Committee had any relationships requiring disclosure by us under the SEC's rules requiring disclosure of certain relationships and related party transactions.



CORPORATE GOVERNANCE AND NOMINATING COMMITTEE

Chair: Elaine J. Heron, Ph.D.

Members: Willard Dere, M.D., David E.I. Pyott, M.D. (Hon.), Dennis J. Slamon, M.D., Ph.D.

Meetings Held in 2018: 5

The CGN Committee is responsible for:

- overseeing the composition of the Board to ensure that qualified individuals meeting the criteria of applicable rules and regulations serve as members of the Board and its committees;
- overseeing the development and implementation of corporate governance principles, policies, codes of conduct and codes of ethics relating to the operation of the Board and its committees;
- making recommendations to the Board regarding such corporate governance issues; and
- keeping informed on issues related to corporate responsibility.

Among other duties and responsibilities, the CGN Committee:

- identifies, reviews and evaluates individuals qualified to serve on the Board consistent with criteria approved by the Board as vacancies arise and seeks out nominees to enhance the diversity, expertise and independence of the Board;
- considers and assesses the independence of Directors, including whether a majority of the Board continue to be independent from management in both fact and appearance, as well as within the meaning prescribed by the listing standards of Nasdaq;

- recommends to the Board for selection Director nominees;
- considers recommendations for Board nominees and proposals appropriately submitted by our stockholders;
- develops and recommends to the full Board corporate governance policies, requirements, criteria and procedures, including policies and procedures to facilitate stockholder communications with the Board;
- reviews related party transactions involving Directors and executives for potential conflicts of interest and recommends courses of action as necessary;
- performs an annual evaluation of the Board and each committee of the Board;
- makes recommendations to the full Board concerning the appropriate size and needs of the Board, including regarding committees of the Board to be maintained or created and chairmanship and membership of the Board committees;
- at least annually, reviews and assesses our Corporate Governance Principles applicable to the Board and the Company and recommends to the Board from time to time any amendments to such principles;
- reviews and assesses our Global Code of Conduct and Business Ethics and Corporate Compliance and Ethics Program and recommends to the Board from time to time any amendments to such code and program;
- oversees and evaluates compliance by the Board and our management with our Corporate Governance Principles, Global Code of Conduct and Business Ethics and Corporate Compliance and Ethics Program
- reviews and approves all board memberships for a for-profit company, other commercial entity, or advisory board, for our Chief Executive Officer and other executive officers and Directors, to assess whether such proposed membership creates or has the potential to create either a conflict of interest or an appearance of one
- implements, in conjunction with the Audit Committee, the internal audit function;
- establishes a toll-free telephone number for employees to anonymously report complaints relating to financial fraud, environmental hazards, illegal or unfair employment practices, and unethical behavior;
- reviews our risk management procedures for those areas deemed appropriate by the Committee;
- recommends guidelines to the Board for corporate succession planning as it relates to our Chief Executive Officer, if appropriate; and
- reviews and oversees related party transactions, as required by our Corporate Governance Principles.

A detailed discussion of the CGN Committee's procedures for recommending candidates for election as a Director appears above under the caption "*Identifying and Evaluating Candidates for Director.*"

The CGN Committee is currently composed of four Directors, each of whom is "independent" under the listing standards of Nasdaq. The members of the CGN Committee are Dr. Heron (Chair), Dr. Dere, Dr. Pyott and Dr. Slamon.

The CGN Committee is governed by a written charter adopted by the Board, which was last amended in December 2016. The CGN Committee Charter and our Corporate Governance Principles can be found in the Corporate Governance section of the Investors section of our website at www.bmrn.com. Information on our website is NOT incorporated by reference in this Proxy Statement. The CGN Committee charter complies with the guidelines established by Nasdaq. The charter of the CGN Committee grants the CGN Committee full access to all of our books, records, facilities and personnel, as well as authority to obtain, at our expense, advice and assistance from internal and external legal, accounting or other advisors and consultants and other external resources that the CGN Committee considers necessary or appropriate in the performance of its duties.

As required by its charter, the CGN Committee conducts a self-evaluation at least annually. The CGN Committee also periodically reviews and assesses the adequacy of its charter, including the CGN Committee's role and responsibilities, and recommends any proposed changes to the Board for its consideration.



SCIENCE AND TECHNOLOGY COMMITTEE

Chair: Alan J. Lewis, Ph.D.

Members: Willard Dere, M.D., Michael Grey, Elaine J. Heron, Ph.D., V. Bryan Lawlis, Ph.D., Dennis J. Slamon, M.D., Ph.D.

Meetings Held in 2018: 2

The Science and Technology Committee is responsible for assisting the Board in overseeing our operations. Among other duties and responsibilities, the Science and Technology Committee:

- reviews matters relating to scientific capabilities and programs and reports to the Board regarding such review in order to help facilitate the Board's oversight of our scientific technology, intellectual property portfolio and strategy and help promote our effective decision-making on science;
- reviews and considers management's decisions regarding the allocation, deployment, utilization of, and investment in our scientific assets; and
- reviews and considers management's decisions regarding acquiring or divesting scientific technology or otherwise investing in research or development programs.

The Science and Technology Committee is currently composed of six Directors: Dr. Lewis (Chair), Dr. Dere, Mr. Grey, Dr. Heron, Dr. Lawlis and Dr. Slamon.

The Science and Technology Committee is governed by a written charter, which was adopted by the Board in December 2012. The Science and Technology Committee charter can be found in the Corporate Governance section of the Investors section of our website at www.bmrn.com. Information on our website is NOT incorporated by reference in this Proxy Statement. The charter of the Science and Technology Committee grants it the resources and authority to select, retain, terminate, and approve the fees and other retention terms of special counsel or other experts or consultants, as it deems appropriate in the performance of its duties and responsibilities.

As required by its charter, the Science and Technology Committee conducts a self-evaluation at least annually. The Science and Technology Committee also periodically reviews and assesses the adequacy of its charter, including the Science and Technology Committee's role and responsibilities, and recommends any proposed changes to the Board for its consideration.

Board Processes

Meetings of the Board of Directors

The Board oversees our business. It establishes overall policies and standards and reviews the performance of management. During the fiscal year ended December 31, 2018, the Board held five meetings. Each Board member attended 75% or more of the aggregate 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, respectively.

Executive Sessions

Applicable Nasdaq listing standards require that the Independent Directors meet from time to time in executive session. In fiscal year 2018, our Independent Directors met in regularly scheduled executive sessions at which only Independent Directors were present.

Attendance at Annual Meeting

It is our policy to request that all Board members attend the Annual Meeting of Stockholders. However, we also recognize that personal attendance by all Directors is not always possible. All ten of the ten Directors serving at the time of the 2018 Annual Meeting of Stockholders attended such meeting.

Other Board Governance Information

Global Code of Conduct and Business Ethics

The CGN Committee regularly reviews our Global Code of Conduct and Business Ethics, which is applicable to all employees and Directors, including our Chief Executive Officer, Chief Financial Officer, other executive officers and senior financial personnel. A copy of our Global Code of Conduct and Business Ethics is available in the Corporate Governance section of the Investors section of our website at www.bmm.com. Information on our website is NOT incorporated by reference in this Proxy Statement. If we make any substantive amendments to our Global Code of Conduct and Business Ethics or grant any waiver from a provision of our Global Code of Conduct and Business Ethics to any executive officer or Director, we will promptly disclose the nature of the amendment or waiver on our website in accordance with the requirements of Item 5.05 of Form 8-K.

Transactions with Related Persons, Promoters and Certain Control Persons

Since January 1, 2018, there has not been nor is there currently proposed any transaction or series of similar transactions to which we were or are to be a party in which the amount involved exceeds \$120,000 and in which any Director, executive officer, holder of more than 5% of our common stock, or any member of the immediate family of any of the foregoing persons, had or will have a direct or indirect material interest other than compensation agreements and other arrangements, which are described elsewhere in this Proxy Statement.

Review, Approval, and Ratification of Transactions with Related Parties

Our CGN Committee has primary responsibility for reviewing and approving in advance or ratifying all related party transactions. Additionally, on at least an annual basis, the Audit Committee also reviews all identified related party transactions. In conformance with SEC regulations, we define related persons to include our executive officers, our Directors and nominees to become a Director of our company, any person who is known to us to be the beneficial owner of more than 5% of any class of our voting securities, any immediate family member of any of the foregoing persons, and any firm, corporation or other entity in which any of the foregoing persons is employed, is a general partner or in which such person has a 5% or greater beneficial ownership interest.

We have several processes that we use to ensure that we identify and review all related party transactions. First, each executive officer is required to notify either our General Counsel or Chief Financial Officer of any potential transaction that could create a conflict of interest, and the General Counsel or Chief Financial Officer is required to notify the CGN Committee of the potential conflict. The Directors, Chief Executive Officer, Chief Financial Officer and General Counsel are required to notify the CGN Committee of any potential transaction that could create a conflict of interest. Second, each year, we require our Directors and executive officers to complete Director and officer questionnaires identifying any transactions with us in which the executive officer or Director or their family members have an interest.

The CGN Committee reviews related party transactions due to the potential for such transactions to create a conflict of interest. A conflict of interest occurs when an individual's private interest interferes, or appears to interfere, with our interests. Our Board or its committees only approve a related party transaction if it is determined that a transaction is in the best interest of the stockholders or is at least not inconsistent with those interests. This includes situations where the Company may obtain products or services of a nature, quantity or quality, or on other terms, that are not readily available from alternative sources or when the transaction is on terms comparable to those that could be obtained in arm's length dealings with an unrelated third party.

These policies and procedures are included in our Corporate Governance Principles, which are available in the Corporate Governance section of the Investors section of our website at www.bmm.com. Information on our website is NOT incorporated by reference into this Proxy Statement.

Indebtedness of Directors and Executive Officers

We have a policy not to lend money to our Directors or executive officers or associates of any Director or executive officer. None of our Directors or executive officers or associates of any Director or executive officer is or at any time since January 1, 2018 has been indebted to us.

Summary of Independent Director Compensation

Our Directors play a critical role in guiding our strategic direction and overseeing the management of BioMarin. The many responsibilities and risks and the substantial time commitment of being a Director require that we provide adequate compensation commensurate with our Directors' workload and opportunity costs. Independent Directors receive a combination of annual cash retainers and RSU grants in amounts that correlate to their responsibilities and levels of Board participation, including service on Board committees. The Board reviews our Independent Director compensation levels and program design annually for competitiveness against the confirmed executive compensation peer group (as set forth in "Compensation Discussion and Analysis—Compensation Adjustments and Peer Group Process" below). To assist with the Board's review, Mercer LLC (Mercer), an independent compensation consultant, prepares a comprehensive annual assessment of our Independent Director compensation program. The assessment includes benchmarking Director compensation against the same peer group used for executive compensation purposes, an update in recent trends in Director compensation and a review of related corporate governance best practices.

Highlights

- We provide an annual limit on non-employee Director compensation under the terms of the 2017 Plan.
- To discourage short-term risk taking, beginning in September 2017, the annual equity award granted to non-employee Directors is made in RSUs only and no longer includes stock options.
- To align Director compensation with the duration of Board service, in September 2017, we eliminated the initial equity award previously granted to all new Directors. Instead, new Directors receive an RSU grant on the same terms as the annual award made on the date of our Annual Meeting of Stockholders, pro-rated to the nearest quarter for the time the new Director is expected to serve prior to our next Annual Meeting of Stockholders.
- The annual cash compensation that the Company pays to its non-employee Directors is based on their positions on the Board or the committees of the Board, and the Company does not compensate Board members on a per meeting basis.
- Our only employee Director, Mr. Bienaimé, receives no separate compensation for his service as a Director or Chair.

Cash Compensation

The following table is a summary of the annual cash compensation payable to the Independent Directors in 2018. Each applicable line item is an additional element of compensation.

Director Position	Annual Cash Compensation ⁽¹⁾
All Independent Directors	\$65,000
Independent Chair of the Board (if applicable) (premium in addition to Independent Director membership retainer)	\$65,000
Lead Independent Director (premium in addition to Independent Director membership retainer)	\$65,000
Audit Committee Member	\$12,000
Audit Committee Chair (premium in addition to committee membership retainer)	\$13,000
Compensation Committee Member	\$10,000
Compensation Committee Chair (premium in addition to committee membership retainer)	\$10,000
Corporate Governance and Nominating Committee Member	\$ 8,750
Corporate Governance and Nominating Committee Chair (premium in addition to committee membership retainer)	\$10,000
Science and Technology Committee Member	\$ 8,750
Science and Technology Committee Chair (premium in addition to committee membership retainer)	\$10,000

- ⁽¹⁾ The annual cash compensation that the Company pays to its Board members, other than Mr. Bienaimé, is based on their positions on the Board or the committees of the Board, and the Company does not compensate the Board members on a per meeting basis. The amounts reflected in the table above were approved by the Board and are unchanged from the amounts reported in the Company's Proxy Statement for the 2018 Annual Meeting.

Equity Compensation

The Board reviewed the Director compensation program in 2015 and determined to transition from a "fixed share" equity grant approach to a "fixed value" equity grant approach to better manage the Board's equity competitiveness. We continued to use the "fixed value" approach for the 2018 Director equity grant.

Annual Award

On the date of our Annual Meeting of Stockholders, each re-elected Independent Director is granted RSUs valued at \$375,000, based on the Black-Scholes model valuation using a 30-day trailing average closing price of our common stock. The shares of common stock subject to the RSUs vest in full on the one-year anniversary of the grant date, subject to each respective Director providing services to the Company through the vesting date.

The annual award amounts and vesting schedules were approved by the Board in June 2015 and were modified by the Board in December 2016 to include the following: (i) the allocation between RSUs and stock options to purchase shares of our common stock shifted from forty percent (40%) RSUs and sixty percent (60%) stock options to a 50%/50% split, and (ii) the annual award equity grant value increased from \$325,000 to \$375,000. As a result of the Board's annual review of the Independent Director compensation program as described above, in September 2017, the Board modified the annual equity grant to be awarded in RSUs only, eliminating the stock option component. The annual equity award for a Director who has served for less than a year is prorated to the nearest quarter. The stock options and RSUs continue to vest only while the Director provides services to the Company. The exercise price per share of each of the stock options is 100% of the fair market value of a share of our common stock on the date of the grant of the stock option. These stock options have a term of 10 years.

In fiscal year 2018, 38,700 RSUs were awarded to the Independent Directors under our 2017 Plan in connection with annual awards to our Directors. Our Board members are eligible to enroll in our Nonqualified Deferred Compensation Plan under which participants may elect to defer all or a portion of their fees and RSU awards otherwise payable to them, and thereby defer taxation of these deferred amounts until actual payment of the deferral amounts in future years. The table below lists actual compensation paid to each of the Directors during 2018, other than Mr. Bienaimé, who is also an NEO. Mr. Bienaimé's compensation is described under the *Executive Compensation* section of this Proxy Statement. Mr. Bienaimé received no additional compensation for serving on our Board in 2018.

Initial Award

As a result of the Board's annual review of the Independent Director compensation program as described above, in September 2017, we also eliminated the initial equity award for new Directors, and now new Directors only receive an RSU grant on the same terms as the annual award, pro-rated to the nearest quarter for the time such new Director will serve prior to our next Annual Meeting of Stockholders. Prior to September 2017, each Independent Director was granted an initial equity grant valued at \$550,000, based on the Black-Scholes model valuation using a three-month trailing average closing price of our common stock, with such valuation allocated forty percent (40%) to RSUs and sixty percent (60%) to stock options to purchase shares of our common stock on the date that such person first becomes an Independent Director. The shares of common stock subject to the initial stock option grant and the initial RSU grant vest annually over three years. The initial award amounts and vesting schedules were approved by the Board in June 2015.

2018 INDEPENDENT DIRECTOR COMPENSATION

Name	Fees Earned (\$) ⁽¹⁾	Stock Awards (\$) ⁽²⁾	Option Awards (\$) ⁽³⁾	Total (\$)
Willard Dere, M.D.	82,500	396,159	—	478,659
Michael Grey	93,750 ⁽⁴⁾	396,159 ⁽⁴⁾	—	489,909
Elaine J. Heron, Ph.D.	104,500	396,159	—	500,659
Robert J. Hombach	96,750	396,159	—	492,909
V. Bryan Lawlis, Ph.D.	85,750	396,159	—	481,909
Alan J. Lewis, Ph.D.	93,750 ⁽⁴⁾	396,159 ⁽⁴⁾	—	489,909
Richard A. Meier	148,500	396,159	—	544,659
David E.I. Pyott, M.D. (Hon.)	83,750	396,159	—	479,909
Dennis J. Slamon, M.D., Ph.D.	82,500 ⁽⁴⁾	396,159	—	478,659

⁽¹⁾ Director fees are generally paid quarterly in arrears within four weeks after the close of a quarter. Accordingly, Director fees earned in the fourth quarter of 2018 were paid in early 2019.

⁽²⁾ The amounts in this column reflect the aggregate grant date fair market value computed in accordance with the Financial Accounting Standards Board's Accounting Standards Codification (FASB ASC) Topic 718. The grant date fair market value of the annual RSU grants made on June 5, 2018 was \$92.13 per share. The aggregate number of shares subject to RSU awards held by the Independent Directors listed in the table above as of December 31, 2018 was as follows:

Name	RSU Awards
Willard Dere, M.D.	5,180
Michael Grey	4,300
Elaine J. Heron, Ph.D.	4,300
Robert J. Hombach	4,300
V. Bryan Lawlis, Ph.D.	4,300
Alan J. Lewis, Ph.D.	4,300
Richard A. Meier	4,300
David E.I. Pyott, M.D. (Hon.)	5,000
Dennis J. Slamon, M.D., Ph.D.	4,300

- ⁽³⁾ As described above, in September 2017, the Board modified the annual equity grant to be awarded in RSUs only, eliminating the stock option component. Accordingly, no stock options were granted to Directors during 2018. The aggregate number of shares subject to stock option awards (from stock option grants made prior to September 2017) held by the Independent Directors listed in the table above as of December 31, 2018 was as follows:

Name	Stock Option Awards
Willard Dere, M.D.	14,790
Michael Grey	43,750
Elaine J. Heron, Ph.D.	51,250
Robert J. Hombach	— ⁽⁵⁾
V. Bryan Lawlis, Ph.D.	68,400
Alan J. Lewis, Ph.D.	36,250
Richard A. Meier	51,250
David E.I. Pyott, M.D. (Hon.)	13,230
Dennis J. Slamon, M.D., Ph.D.	24,300

- ⁽⁴⁾ A portion of this amount or award, as applicable, was deferred pursuant to our Nonqualified Deferred Compensation Plan. A more detailed discussion of our nonqualified deferred compensation arrangements is provided under the heading “Nonqualified Deferred Compensation Plan” in this Proxy Statement.
- ⁽⁵⁾ Mr. Hombach joined the Board after the September 2017 Board action described above, so all of his equity awards have been made in RSUs only and he has not been granted any stock options.

Proposal No. Two: Ratification of the Selection of the Independent Registered Public Accounting Firm for BioMarin

The Audit Committee has selected KPMG as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2019 and has further directed that management submit the selection of the independent registered public accounting firm for ratification by the stockholders at the Annual Meeting. KPMG has served as our independent registered public accounting firm since June 11, 2002. Representatives of KPMG plan to attend the Annual Meeting and will be available to answer appropriate questions from stockholders and, although they do not expect to do so, they will have the opportunity to make a statement if they so desire.

Neither the Company's Bylaws nor other governing documents or law require stockholder ratification of the selection of KPMG as the Company's independent registered public accounting firm. However, the Board is submitting the selection of KPMG to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain KPMG. Even if the selection is ratified, the Audit Committee in its discretion may direct the appointment of different independent registered public accounting firm at any time during the year if the Audit Committee determines that such a change would be in the best interest of the Company and its stockholders.

Independent Registered Public Accounting Firm

The following is a summary of the fees and services provided by KPMG to the Company for fiscal years 2018 and 2017.

Description of Services Provided by KPMG LLP	Year Ended December 31, 2018	Year Ended December 31, 2017
<i>Audit Fees:</i>	\$2,133,059 ⁽¹⁾	\$1,798,279 ⁽¹⁾
<i>Audit Related Fees:</i> These services relate to assurance and related services reasonably related to the performance of the audit or review of financial statements not included in Audit Fees above.	\$ 15,000 ⁽²⁾	\$ 157,423 ⁽²⁾
<i>Tax Fees:</i> These services relate to the preparation of federal, state and foreign tax returns and other filings, as well as to the area of tax strategy and minimizing Federal, state, local and foreign taxes.	\$ 73,184 ⁽³⁾	\$ 60,000 ⁽³⁾
<i>All Other Fees:</i>	\$ 19,744 ⁽⁴⁾	\$ 6,760 ⁽⁴⁾
<i>Total Fees:</i>	\$2,240,987	\$2,022,462

⁽¹⁾ Includes fees for non-routine transactions.

⁽²⁾ Reflects fees for assurance services related to a subsidiary pension plan and company financing activities.

⁽³⁾ Reflects fees for tax consulting and development of meals and entertainment tax deduction methodologies.

⁽⁴⁾ Reflects fees for assurance services not reasonably related to the performance of the audit or review the Company's financial statements and fees for non-audit services provided in relation to the conversion of our statutory filings to extensible Business Reporting Language (xbrl) as required by HM Revenue and Customs in the United Kingdom.

The Audit Committee has the sole authority to approve the scope of the audit and any audit related services as well as all audit fees and terms. The Audit Committee must pre-approve any audit and non-audit services provided by our independent registered public accounting firm. The Audit Committee will not approve the engagement of the independent registered public accounting firm to perform any services that the independent registered public accounting firm would be prohibited from providing under applicable securities laws, Nasdaq requirements or Public Company Accounting Oversight Board rules. In assessing whether to approve the use of our independent registered public accounting firm to provide permitted non-audit services, the Audit Committee strives to minimize relationships that could appear to impair the objectivity of our independent registered public accounting firm. The Audit Committee will approve permitted non-audit services by our independent registered public accounting firm only when it will be more effective or economical to have such services provided by our independent registered public accounting firm than by another firm.

The Audit Committee annually reviews and pre-approves the statutory audit fees that can be provided to the independent registered public accounting firm. Any proposed services exceeding pre-set levels or amounts requires separate pre-approval by the Audit Committee, although our Chief Financial Officer and Chief Accounting Officer can approve up to an additional \$100,000 in the aggregate for global statutory audits. In addition, any pre-approved services for which no pre-approved cost level has been set or which would exceed the pre-approved cost by an amount that would cause the aggregate \$100,000 amount to be exceeded must be separately pre-approved by the Audit Committee.

The Audit Committee has delegated pre-approval authority to the Chair of the Audit Committee within the guidelines discussed above. The Chair of the Audit Committee is required to inform the Audit Committee of each pre-approval decision at the next regularly scheduled Audit Committee meeting.

All the services provided by KPMG during 2018 were pre-approved in accordance with this policy.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL NO. TWO.

Report of the Audit Committee of the Board of Directors⁽¹⁾

The Audit Committee has reviewed and discussed the audited financial statements of the Company with management of the Company. In addition, the Audit Committee has discussed with KPMG the matters required to be discussed by Auditing Standard No. 1301, *Communications with Audit Committees*, as adopted by the Public Company Accounting Oversight Board (PCAOB). The Audit Committee has received from KPMG the written disclosures and the letter required by applicable requirements of the PCAOB regarding KPMG's communications with the Audit Committee concerning independence and has discussed with KPMG the independence of KPMG from the Company and its management. Based on the foregoing, the Audit Committee recommended to the Board that the audited financial statements be included in the Company's Annual Report on Form 10-K filed with the SEC for the fiscal year ended December 31, 2018.

Respectfully submitted on February 25, 2019 by the members of the Audit Committee of the Board of Directors:

Robert J. Hombach, Chair

Elaine J. Heron, Ph.D.

Richard A. Meier

V. Bryan Lawlis, Ph.D.

⁽¹⁾ The material in this report is not deemed "soliciting material," is not deemed "filed" with the SEC, is not subject to Regulation 14A or 14C or to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended (the Exchange Act), and is not to be incorporated by reference into any filing of BioMarin under the Securities Act of 1933, as amended (the Securities Act), or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Executive Officers

The following table sets forth certain information concerning our executive officers as of March 15, 2019.

Name	Age	Position with BioMarin
Jean-Jacques Bienaimé	65	Chief Executive Officer
Jeff Ajer	56	Executive Vice President and Chief Commercial Officer
Robert A. Baffi, Ph.D.	64	Executive Vice President of Technical Operations
G. Eric Davis	48	Executive Vice President, General Counsel and Secretary
Henry J. Fuchs, M.D.	61	President of Worldwide Research & Development
Brian R. Mueller	45	Senior Vice President, Finance and Chief Accounting Officer
Daniel Spiegelman	60	Executive Vice President and Chief Financial Officer

There are no family relationships among any of our Directors and any of our executive officers. The biographical information for Mr. Bienaimé is set forth above under “Proposal No. One: Election of Directors Nominees for Director.”

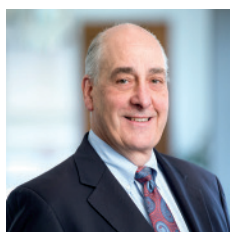


JEFF AJER

Joined BioMarin in August 2005

Executive Vice President and Chief Commercial Officer

Jeff Ajer joined BioMarin in August 2005 and currently serves as our Executive Vice President and Chief Commercial Officer. From October 2012 to January 2014, Mr. Ajer served as our Senior Vice President and Chief Commercial Officer. From April 2009 to October 2012, Mr. Ajer served as our Vice President, Commercial Operations, The Americas, where he had responsibility for commercial operations throughout the Americas and led product marketing, reimbursement, and sales operations for BioMarin. Prior to joining BioMarin, Mr. Ajer served in various roles at Genzyme Corporation (Genzyme) beginning in November 2003 and lastly as Vice President, Global Transplant Operations from December 2004 to August 2005. Mr. Ajer's experience prior to Genzyme includes roles in sales, marketing and operations at SangStat Medical Corporation and ICN Pharmaceuticals, Inc. Mr. Ajer received both a B.S. in chemistry and an M.B.A. from the University of California, Irvine. Mr. Ajer is currently a Director of Nektar Therapeutics, a public biopharmaceutical company.



ROBERT A. BAFFI, Ph.D.

Joined BioMarin in May 2000

Executive Vice President of Technical Operations

Robert A. Baffi, Ph.D., joined BioMarin in May 2000 and currently serves as our Executive Vice President of Technical Operations, responsible for overseeing our manufacturing, process development, quality, and analytical chemistry departments. From 2000 to December 2009, Dr. Baffi served as our Senior Vice President of Technical Operations and from 1986 to 2000, Dr. Baffi served in a number of increasingly responsible positions at Genentech, Inc., primarily in the functional area of quality control. Prior to Genentech, Dr. Baffi worked for Cooper BioMedical as a Research Scientist and at Becton Dickinson Research Center as a Post-Doctoral Fellow. Dr. Baffi has contributed to more than 20 regulatory submissions for product approval in the United States and Europe and to more than 50 regulatory submissions for investigational new drug testing. He currently serves on the board for the National Institute for Bioprocessing Research & Training. Dr. Baffi received a Ph.D., M. Phil and a B.S. in biochemistry from the City University of New York and an M.B.A. from Regis University.

**G. ERIC DAVIS**

Joined BioMarin in March 2004

Executive Vice President, General Counsel and Secretary

G. Eric Davis joined BioMarin in March 2004 and currently serves as our Executive Vice President, General Counsel and Secretary. From December 2005 to March 2016, Mr. Davis served as our Senior Vice President, General Counsel and Secretary and from 2004 to December 2005, Mr. Davis served as our Vice President, General Counsel and Secretary. From 2000 to 2004, Mr. Davis worked in the San Francisco office of Paul Hastings LLP (formerly Paul, Hastings, Janofsky & Walker LLP), where he served on the firm's national securities practice committee. Mr. Davis has represented public and private companies and venture capital and investment banking firms in a wide range of corporate and securities matters, mergers and acquisitions, strategic alliance matters, and intellectual property-related business transactions. His experience involves a variety of industries, including biotechnology and life sciences. Mr. Davis received a B.A. in political economy from the University of California, Berkeley, and a J.D. from the University of San Francisco School of Law.

**HENRY J. FUCHS, M.D.,**

Joined BioMarin in March 2009

President of Worldwide Research & Development

Henry J. Fuchs, M.D., joined BioMarin in March 2009 and currently serves as our President of Worldwide Research & Development. From December 2009 to October 2016, Dr. Fuchs served as our Executive Vice President and Chief Medical Officer. From March 2009 to December 2009, Dr. Fuchs served as our Senior Vice President and Chief Medical Officer. From September 2005 until December 2008, Dr. Fuchs served as Executive Vice President and Chief Medical Officer for Onyx Pharmaceuticals Inc., a biopharmaceutical company. Dr. Fuchs served as Chief Executive Officer of Ardea Biosciences, Inc. from January 2003 until June 2005. Dr. Fuchs first joined Ardea Biosciences, Inc. as Vice President, Clinical Affairs in October 1996 and was appointed President and Chief Operating Officer in November 2001. From 1987 to 1996, Dr. Fuchs held various positions at Genentech, Inc. where, among other responsibilities, he led the clinical program that resulted in the approval of Pulmozyme, a therapeutic for cystic fibrosis. Dr. Fuchs was also responsible for the Phase III development program that led to the approval of Herceptin to treat metastatic breast cancer. Dr. Fuchs received an M.D. degree from George Washington University and a B.A. degree in biochemical sciences from Harvard University. Dr. Fuchs is currently a Director of Mirati Therapeutics, Inc., a public biopharmaceutical company, and Genomic Health, Inc., a public molecular diagnostics company.

**BRIAN R. MUELLER**

Joined BioMarin in December 2002

Senior Vice President, Finance and Chief Accounting Officer

Brian Mueller joined BioMarin in December 2002 and currently serves as our Senior Vice President, Finance and Chief Accounting Officer. He has served as our Chief Accounting Officer since March 2011. From March 2014 to August 2016, Mr. Mueller served as our Group Vice President, Corporate Controller and from March 2009 to March 2014, Mr. Mueller served as our Vice President, Corporate Controller. Mr. Mueller is a member of the board of Directors of Anthera Pharmaceuticals, Inc., a biopharmaceutical company where he also served as Chairman of the Audit Committee. Prior to joining BioMarin in 2002, Mr. Mueller worked for KPMG as a senior manager in the firm's audit practice. Mr. Mueller joined KPMG after Arthur Andersen LLP ceased operations in June 2002, prior to which he spent seven years with Arthur Andersen LLP in the firm's audit and business advisory services practice. Mr. Mueller received a B.S. in Accountancy from Northern Illinois University in DeKalb, Illinois, and is a member of the American Institute of Certified Public Accountants.

**DANIEL SPIEGELMAN**

Joined BioMarin in May 2012

Executive Vice President and Chief Financial Officer

Daniel Spiegelman joined BioMarin in May 2012 and currently serves as our Executive Vice President and Chief Financial Officer. From May 2009 until May 2012, Mr. Spiegelman served as a consultant to provide strategic financial management support to a portfolio of public and private life science companies. From 1998 to 2009, he served as Senior Vice President and Chief Financial Officer of CV Therapeutics, Inc. where he was responsible for finance, accounting, investor relations, business development, and information systems. From 1991 to 1998, Mr. Spiegelman served in various roles at Genentech, Inc., most recently as Treasurer. He received a B.A. from Stanford University and an M.B.A. from the Stanford Graduate School of Business.

Proposal No. Three: Advisory Vote on Executive Compensation

The Company's stockholders are entitled to vote to approve, on a non-binding advisory basis, the compensation of the Company's NEOs as disclosed in this Proxy Statement in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), Section 14A of the Exchange Act, and SEC rules (commonly known as the "say-on-pay" vote). This vote is not intended to address any specific item of compensation, but rather the overall compensation of the Company's NEOs and the philosophy, policies and practices described in this Proxy Statement. At the 2017 Annual Meeting, consistent with the Company's recommendation, stockholders holding a majority of our shares voted to recommend that the Company hold an annual advisory vote on the compensation of the NEOs. The Company has acted in accordance with the 2017 vote by including this proposal and intends to continue to hold an annual advisory vote on NEO compensation.

The compensation of the Company's NEOs subject to the vote is disclosed in the "*Compensation Discussion and Analysis*," compensation tables, and related narrative disclosure contained in this Proxy Statement. The Company's compensation philosophy is to provide competitive overall compensation that attracts and retains top performers and aligns their interests with those of our stockholders. To achieve these goals, our compensation program is structured to:

- provide total compensation and compensation elements that are competitive with companies with which we compete for talent;
- provide a mix of compensation that offers (i) a market competitive base salary, (ii) annual incentive compensation based on achieving defined corporate goals within 12 months, and (iii) the opportunity to share in the long-term growth of our company through equity compensation; and
- reward exceptional performance by individuals.

Accordingly, the Board is asking the stockholders to indicate their support for the compensation of the Company's NEOs as described in this Proxy Statement by casting a non-binding advisory vote "FOR" the following resolution:

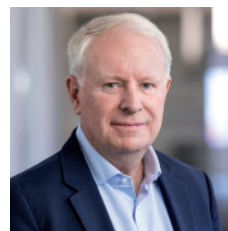
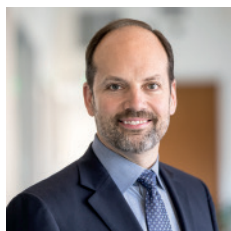
"RESOLVED, that the Company's stockholders hereby approve, on an advisory basis, the compensation of the Company's Named Executive Officers, as disclosed in this Proxy Statement pursuant to the compensation disclosure rules of the SEC, including the *Compensation Discussion and Analysis*, compensation tables and narrative discussion and any related material."

The "*Compensation Discussion and Analysis*" section of this Proxy Statement contains more details on the Company's executive compensation; we urge you to read it carefully before casting your vote on this proposal. Because the vote is advisory, it is not binding on the Company, the Board or the Compensation Committee of the Board. Nevertheless, the views expressed by our stockholders, whether through this vote or otherwise, are important to our management, the Board and the Compensation Committee. Our management, the Board and Compensation Committee intend to consider the results of this vote in making decisions about executive compensation arrangements and the Company's executive compensation principles, policies and procedures.

Advisory approval of this proposal requires support of a majority of votes cast by the holders of shares present in person or represented by proxy and entitled to vote at the Annual Meeting.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL NO. THREE.

Letter from our Compensation Committee



Dear BioMarin Pharmaceutical Inc. Stockholder:

As members of the Board's Compensation Committee, we are responsible for and committed to developing an executive compensation program that attracts, motivates and retains key executives critical to the success of our business and the creation of long-term stockholder value. Our compensation program is structured to remain competitive with the companies with which we compete for talent, balance short- and long-term perspectives, reward exceptional individual and corporate performance and closely align the interests of our executives with those of our stockholders.

BioMarin has had great success in recent years, from both a financial and development perspective. Our revenues continued to climb, nearly doubling from \$749 million for fiscal year 2014 to just under \$1.5 billion for fiscal year 2018. In each of the last two years we have added a new product to our commercial portfolio, and our development pipeline continues to produce exciting potential therapies like valoctocogene roxaparvec for severe hemophilia A and vosoritide for achondroplasia, among others.

We recognize that our stock price has not always reflected the success of the Company, and at times, executive compensation has not closely tracked stockholder experience. Aside from certain factors specific to BioMarin, our stock price has also been negatively impacted by risks facing the biotechnology industry as a whole, like the worldwide debate surrounding drug pricing and healthcare reform. We considered these factors when designing the 2019 compensation program.

In 2018, we increased our stockholder engagement efforts to seek feedback on a number of topics, with a specific focus on our executive compensation program. Despite having the support of nine of our top ten stockholders⁽¹⁾, our last say-on-pay vote received support of only 56% of the votes cast. Our Lead Independent Director, Richard Meier, participated in a number of the calls with our stockholders, and feedback from these discussions was relayed to the Compensation Committee and full Board. We listened carefully to our stockholders, and we changed our governance and compensation practices in direct response to their feedback. These changes are summarized below, and more complete descriptions are included in the section of this Proxy Statement titled "Proxy Overview—Stockholder Engagement," and in the "Compensation Discussion and Analysis" section that follows this letter.

- **Increased performance-based pay:** Starting with the equity grants made in March 2019, performance-based RSUs as a percentage of total long-term equity compensation increased significantly. Now, 50% of long-term equity compensation is denominated in performance-based RSUs.
- **Enhanced alignment of pay and stockholder experience:** As of March 2019, 50% of the performance-based RSUs will be earned based on relative total shareholder return (TSR) performance over a three-year period. We expect that by the 2020 annual equity grant, 100% of our performance-based RSU grants will use a three-year performance period.
- **Improved transparency for the annual cash incentive program:** Beginning with this Proxy Statement, we will provide more details regarding the development goals for each clinical and pre-clinical program underlying the annual cash incentive program.

We take our stockholders' feedback very seriously, and our hope is that investors will see the changes we made based on their recent feedback as a move in the right direction and proof that we value their opinions. We look forward to ongoing discussions with our stockholders and continuing to help BioMarin move forward with the support of its investors.

Michael Grey
(Chair)

Robert J. Hombach

Alan J. Lewis, Ph.D.

David E.I. Pyott, M.D.
(Hon.)

¹ One of our top ten stockholders indicated to us that they supported the say-on-pay proposal; however, the stockholder did not cast its vote due to technical problems with its systems.

Executive Compensation

Compensation Discussion and Analysis

The following Compensation Discussion and Analysis provides information about our 2018 compensation program for our NEOs: the individuals who served as our principal executive officer and principal financial officer and the three other most highly-compensated executive officers as of December 31, 2018. Each NEO's compensation is set forth in the "Summary Compensation Table" and other compensation tables included in this Proxy Statement. Our NEOs for fiscal year 2018 are:

- Jean-Jacques Bienaimé, Chief Executive Officer;
- Daniel Spiegelman, Executive Vice President and Chief Financial Officer;
- Jeff Ajer, Executive Vice President and Chief Commercial Officer;
- Robert Baffi, Executive Vice President, Technical Operations; and
- Henry Fuchs, President of Worldwide Research & Development.

The Compensation Committee believes that our executive compensation program is designed to achieve our primary goal of providing appropriate incentives to attract and retain the executive talent necessary to advance our business of developing and commercializing innovative biopharmaceuticals for serious diseases and medical conditions and to increase stockholder value. The Compensation Committee also believes that our executive compensation program is appropriate in that it both encourages executive officers to work for meaningful stockholder return and reflects our pay-for-performance philosophy, without encouraging our executive officers to assume excessive risks.

2018 Business Highlights

In 2018, we achieved nearly \$1.5 billion in total revenues and also reduced our GAAP Net Loss, while we concurrently made important advancements in our pipeline programs.

Our key accomplishments in 2018 included:

REVENUE

14% growth

Achieving 14% growth in total BioMarin revenue compared to 2017, increasing from \$1.31 billion to \$1.49 billion

VIMIZIM SALES

17% growth

Achieving 17% in revenue growth from Vimizim sales, recording \$482 million in 2018 compared to \$413 million in 2017

VALOCTOCOGENE ROXAPARVOVEC PROGRAM

Completing enrollment of the initial cohort of patients in the Phase 3 program that would be included in a potential accelerated submission to the U.S. Food and Drug Administration (FDA)



DEVELOPMENT PIPELINE



Advancing our product development pipeline, which includes multiple clinical compounds for the treatment of various rare diseases, such as valoctocogene roxaparvec for severe hemophilia A and vosoritide for achondroplasia

PALYNZIQ APPROVAL AND U.S. LAUNCH

Palynziq, our seventh commercial product, was approved by the FDA in May 2018, and we began shipping the product in the U.S. in the third quarter of 2018



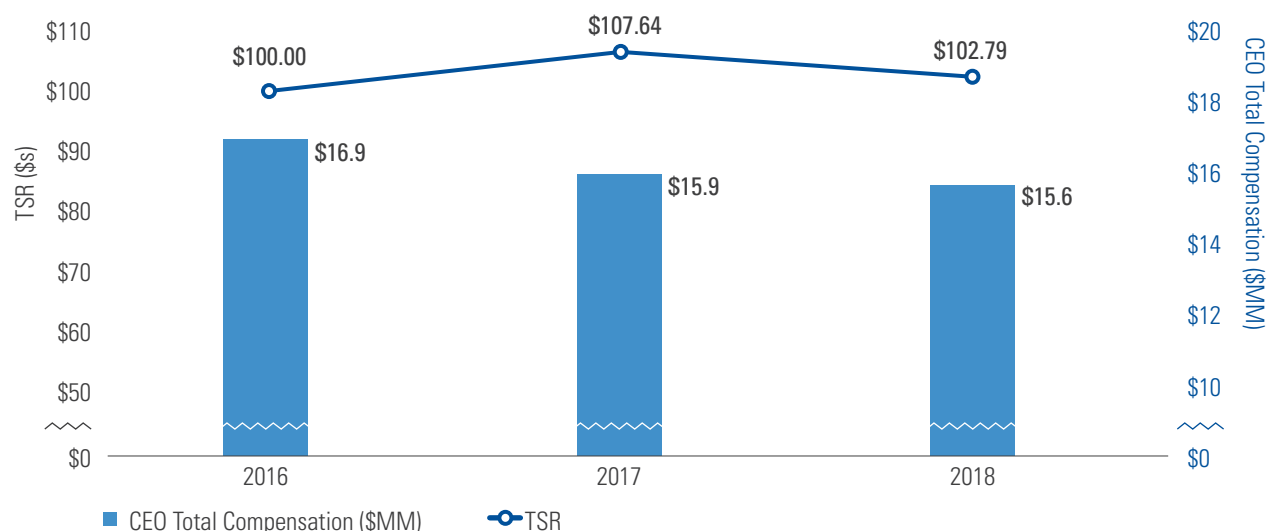
Stock Performance

The 2018 accomplishments described above and other accomplishments over recent years have contributed to the creation of significant long-term value for our stockholders. Our strong performance is reflected in the long-term appreciation of our stock price, which increased 21% over the most recent five completed years, from \$70.35 as of December 31, 2013 to \$85.15 as of December 31, 2018. For more information, see Part II, Item 5, "Performance Graph" in our Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019.

CEO Pay Movement and TSR

As shown below, in recent years the CEO's total compensation has moved slightly lower while TSR has remained positive.

TSR VS. CEO TOTAL COMPENSATION



⁽¹⁾ Total Shareholder Return (TSR) assumes \$100.00 invested at the close of trading on December 31, 2016, and the reinvestment of dividends.

⁽²⁾ CEO Total Compensation (in millions) is set forth in the "Summary Compensation Table" of the Proxy Statement for the applicable fiscal year and is based on the amounts in such table, including the "Target Payout" amounts in the applicable footnotes to such tables.

Recent Say-on-Pay Vote and Stockholder Feedback

Our stockholders' views and opinions on our executive compensation practices are extremely important to us. As a steward of good corporate governance, our Compensation Committee evaluates the design of our executive compensation program based on market conditions, stockholder views, and other governance considerations. We regularly engage with our stockholders through open dialogue and direct individual communication on topics related to the business, financial performance, corporate governance, and compensation of the Company. For details regarding our stockholder outreach efforts specific to 2018, please see the "Proxy Overview—Stockholder Engagement." Stockholder feedback is important, and the information we glean from these engagements is highly valued. In recent years, the Compensation Committee considered this feedback in increasing the performance-based RSU component in the annual equity grants from 0% in 2014 to 30% of the total equity grant value in 2017 and 2018 (up from 20% and 25% in 2015 and 2016, respectively).

As discussed elsewhere in this Proxy Statement, at our 2018 Annual Meeting, our stockholders approved the compensation of our NEOs with only 56% of total votes cast in support of the proposal. Although our say-on-pay proposal received support of the majority of shares held by the voting stockholders and nine of our top ten stockholders¹, we were disappointed with the overall vote result. Before the 2018 say-on-pay vote, our recent say-on-pay proposals passed with margins in the high-80% and 90% ranges. As a result of the most recent say-on-pay vote result and feedback we received from stockholders during 2018, we changed our compensation practices as described below:

<p>Solution: We significantly increased the portion of performance-based restricted stock units (RSUs) as a percentage of total long-term equity compensation.</p> <ul style="list-style-type: none"> The allocation of equity awards changed from 40% stock options, 30% service-based RSUs, and 30% performance-based RSUs to 25% stock options, 25% service-based RSUs, and 50% performance-based RSUs. Effective Date: Beginning with equity grants made in March 2019. 	<p>Feedback Addressed</p> <p>More of long-term compensation should be performance-based, rather than time-based.</p> <p>Purpose of Change</p> <p>Further tie compensation to performance of the Company.</p>
<p>Solution: 50% of performance-based RSUs will be earned based on relative total shareholder return (TSR).</p> <ul style="list-style-type: none"> Instead of all performance-based RSUs being earned based on revenue achievement, 50% will be earned based on the percentile of the Company's relative TSR performance as compared to companies that make up the NASDAQ Biotechnology Index. Effective Date: Beginning with equity grants made in March 2019. 	<p>Feedback Addressed</p> <ul style="list-style-type: none"> Realized compensation has not always closely correlated to stockholder experience. Revenue determines a large proportion of short-term performance-based compensation (30% weight in annual cash incentive program), so revenue should not also determine long-term performance-based compensation. <p>Purpose of Change</p> <ul style="list-style-type: none"> More closely align realized compensation with stockholder return. Further focus management on goals other than revenue growth that may also drive stockholder value.
<p>Solution: The TSR metric underlying the new performance-based RSU program will be measured using a three-year period.</p> <ul style="list-style-type: none"> Prior to this change, all performance-based RSUs were based on one-year revenue performance. Effective Date: Beginning with equity grants made in March 2019. We expect that by the 2020 annual equity grant, 100% of our performance-based RSU grants will use a three-year performance period. 	<p>Feedback Addressed</p> <p>More of the performance-based compensation should be earned over a longer period.</p> <p>Purpose of Change</p> <p>Further incentivize long-term performance and tie compensation to achievement of long-term goals; encourage retention of key employees.</p>
<p>Solution: We included more information in this proxy statement regarding the annual cash incentive program.</p> <ul style="list-style-type: none"> We provided significantly more details regarding the development goals for each clinical and pre-clinical program underlying the annual cash incentive program. Effective Date: The date of this proxy statement. 	<p>Feedback Addressed</p> <p>More details should be provided regarding the development goals underlying the annual cash incentive program.</p> <p>Purpose of Change</p> <p>Increase transparency in determining amounts earned under the annual cash incentive program and explain the philosophy behind the program's design.</p>

¹ One of our top ten stockholders indicated to us that they supported the say-on-pay proposal; however, the stockholder did not cast its vote due to technical problems with its systems.



Highlights of Compensation Policies and Practices

Our Compensation Committee and Board have implemented compensation policies and practices designed to enhance governance of our executive compensation program and to further our compensation objectives. These policies and practices include:

Annual Advisory Say-on-Pay Vote	Our Board elected to hold an annual advisory say-on-pay vote. The Compensation Committee considers the outcome of the advisory vote in making compensation decisions.
Compensation Committee Oversight; Executive Sessions	The Compensation Committee regularly meets in executive sessions without management present.
Updated Equity Incentive Plan Features	Our 2017 Plan, which the stockholders approved at our 2017 Annual Meeting, contains a number of features that represent good corporate governance, including a limit on non-employee Director compensation and restrictions on payment of dividends, among other stockholder-favorable features.
Independent Compensation Committee	The Compensation Committee is composed solely of Independent Directors.
Independent Compensation Consultant	The Compensation Committee has engaged an independent compensation consultant for advice on topics related to the Board and NEO compensation. The independent compensation consultant reports directly to the Compensation Committee, which has sole authority to direct the consultant's work.
Policy Against Tax Gross-Ups	In March 2015, the Compensation Committee formally adopted a policy against granting tax gross-ups to executives going forward. In December 2016, our CEO voluntarily forfeited his right to income tax gross-up payments in connection with a change in control as provided in his then-current employment agreement.
Policy for Recoupment of Incentive Compensation (Clawback Policy)	Our Policy for Recoupment of Incentive Compensation (Clawback Policy) provides for the recoupment by us of certain incentive compensation paid to current or former executive officers in the event we are required to prepare an accounting restatement of our financial statements due to our material noncompliance with any financial reporting requirement under the securities laws. The Clawback Policy can be found in the Corporate Governance section of the Investors section of our website at www.bmrn.com . Information on our website is NOT incorporated by reference in this Proxy Statement.
Prohibition Against Hedging and Pledging of Securities	Our trading policy prohibits executives from engaging in short sales, transactions in put or call options, hedging transactions or other speculative transactions in our stock or engaging in excessive margin activities.
Prohibition on Stock Option Repricing	Our equity incentive plans prohibit stock option repricing without stockholder approval.

Risk Management	Our executive compensation policies are structured to discourage inappropriate risk-taking by our executives. The Compensation Risk Assessment discussion below describes the Compensation Committee's assessment that the risks arising from our company-wide compensation programs are reasonable and not likely to have a material adverse effect on BioMarin and that the programs are in the best interests of stockholders.
Securities Trading Policy	We maintain a comprehensive securities trading policy which provides, among other things, that our employees who possess material non-public information may not disclose, or trade while in possession of, such information or buy or sell our securities during any designated blackout period. Individuals classified as "Designated Insiders" (which include our NEOs) may not buy or sell our securities at any time without prior approval, except for sales under approved Rule 10b5-1 trading plans.
Stock Ownership Guidelines	We have established stock ownership guidelines for our executives to increase the link between the interests of executives and those of stockholders.
Transparent Equity Granting Process and Practices	The Compensation Committee grants equity awards annually to eligible employees according to a regular, pre-set schedule.

Compensation Risk Assessment

We believe that risks arising from our compensation policies and practices for our employees are not reasonably likely to have a material adverse effect on the Company. In addition, the Compensation Committee believes that the mix and design of the elements of executive compensation do not encourage management to assume excessive risks.

The Compensation Committee, with assistance of its independent compensation consultant, extensively reviewed the elements of executive compensation to determine whether any portion of executive compensation encouraged excessive risk taking and concluded:

- significant weighting toward long-term incentive compensation discourages short-term risk taking;
- for most employees, base salary makes up a significant portion of compensation;
- the mix of short-term and long-term compensation (base salary, annual cash incentive, equity grants) is consistent with industry norms;
- goals are appropriately set to avoid targets that, if not achieved, result in a large percentage loss of compensation;
- the prohibition on hedging or pledging of our stock and the Recoupment Policy (Clawback Policy) discourage short-term and excessive risk taking; and
- stock ownership guidelines discourage excessive risk taking.

Furthermore, as described in the "Compensation Discussion and Analysis" section of this Proxy Statement, compensation decisions include subjective considerations to moderate the affects that formulae or objective factors might have on excessive risk taking.

Compensation Objectives and Philosophy

We believe that the leadership of our executive team has been instrumental to our success in 2018 and prior years, and that an executive compensation program that attracts, motivates and retains key executives is critical to the success of our business and to creating long-term stockholder value. Our compensation program is structured to achieve the following main objectives:

Market Competitiveness and Retention	+	Balance Between Short- and Long-Term Perspectives	+	Pay-for-Performance	+	Stockholder Alignment
Provide total compensation and compensation elements that are competitive with companies with which we compete for talent		Balance short- and long-term perspectives by including a mix of compensation that includes: base salary, annual cash incentives based on achieving short-term corporate goals, and opportunities to share in long-term company growth through equity compensation		Reward executives for exceptional individual and corporate performance		Closely align the interests of executive officers with those of our stockholders

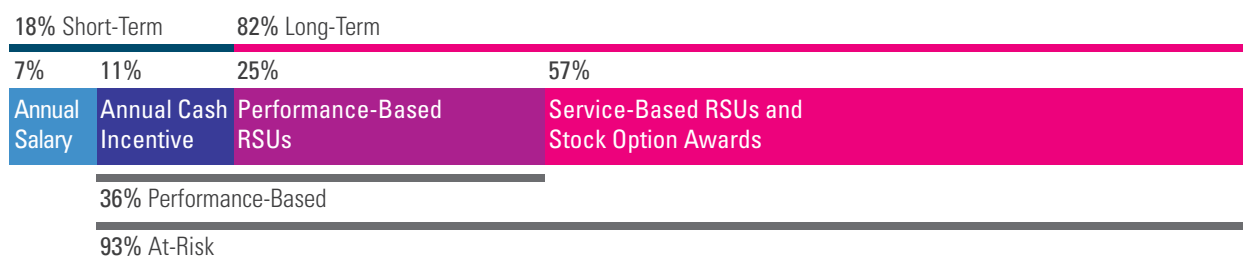
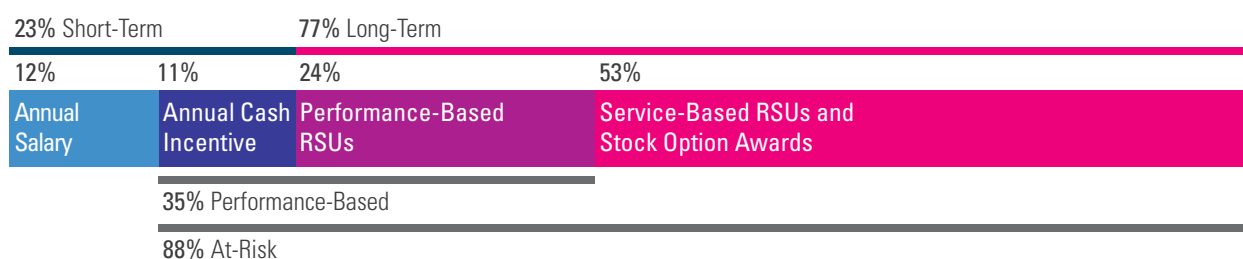
To realize these objectives, we use a balance of compensation elements and benefits, which are summarized in the table below and discussed in detail under “Elements of Compensation Package.” The focus of our compensation program is on total direct compensation opportunity (base salary, annual incentive compensation and long-term incentive compensation), with an explicit role for each element.

Compensation Element	Purpose			
	Market Competitiveness and Retention	Balance Short- and Long-Term Perspectives	Pay-for-Performance	Stockholder Alignment
Base Salary	☑	☑		
Annual Cash Incentive	☑	☑	☑	☑
Equity Grants	☑	☑	☑	☑
Limited Perquisites and Other Personal Benefits	☑			
Potential Severance Benefits	☑	☑		

The Compensation Committee considered each of our compensation objectives in determining the 2018 compensation of our NEOs, as discussed in greater detail below. We provide our NEOs with competitive annual cash compensation in the form of salary and annual incentives but believe that a majority of our NEO compensation should be earned through long-term, equity-based incentives. Our focus on long-term, equity-based incentives is appropriate because of the lengthy time period required to develop pharmaceutical products, as well as the time required for pharmaceutical products to obtain regulatory approval on a worldwide basis and to reach peak sales.

The Compensation Committee focuses on providing NEOs and other executive officers with competitive compensation based on a variety of factors, including the experience of the NEO, competitive market data and individual and corporate performance. Executive pay is not targeted to a specific market percentile. The Compensation Committee and the Board believe that this approach can efficiently set NEO compensation to appropriately compensate each individual based on his or her skill and performance and/or expected future contribution to the Company's business, and the performance of the Company as a whole.

In 2018, the compensation of our Chief Executive Officer, Mr. Bienaimé and the other NEOs consisted primarily of performance-based cash compensation and long-term incentives. For 2018, at risk, performance-based compensation (annual cash incentives and equity awards, measured at target achievement) accounted for 93% of the total direct compensation of our Chief Executive Officer and 88% of the average total direct compensation of our other NEOs. In addition, during 2018, 82% of the total direct compensation of our Chief Executive Officer and 77% of the average total direct compensation of our other NEOs was delivered through long-term incentives (stock option awards and RSUs).

CEO TOTAL COMPENSATION MIX IN 2018⁽¹⁾OTHER NEOs' TOTAL COMPENSATION MIX IN 2018⁽¹⁾⁽²⁾

⁽¹⁾ Each percentage is calculated as a percentage of total compensation set forth in the "Summary Compensation Table" in this Proxy Statement and is based on the amounts in such table, including the "Target Payout" amounts in footnote (2) to such table. The amounts under "All Other Compensation" in the "Summary Compensation Table" in this Proxy Statement are not represented in the chart because such amounts as a percentage of total compensation round down to zero. Certain percentages are rounded up or down by less than 1% so that totals equal 100%.

⁽²⁾ Percentages are calculated based on the sum of all other NEOs' compensation.

Compensation Adjustments

Each year, the Compensation Committee conducts a comprehensive analysis of the compensation program to ensure it provides competitive compensation necessary to attract and retain qualified executives, while focusing on the qualification and performance of individual executives and the performance of the Company as a whole. We generally review our compensation practices annually at several meetings of the Compensation Committee and the Board. To ensure independence and candid communication, the Compensation Committee regularly meets with the Compensation Consultant in executive sessions without management present.

Peer Group Process

The Compensation Committee, with the support of the Compensation Consultant and management, reviews trends in biotechnology compensation practices and reviews and approves the list of peer companies used in the later stages of the process. The Compensation Committee seeks input from management and the Compensation Consultant to ensure the peer group is consistent with our current business model. The Compensation Committee evaluates the criteria used in establishing the peer group to ensure that it appropriately represents the companies competing with us to attract and retain the best employees, which are necessary to drive long-term stockholder value.

The list of peer group companies is based on various factors including size, market capitalization, development stage, product revenue and product focus. The 2018 peer group included commercial biotechnology and specialty pharmaceutical companies with the following features:

business models with a therapeutic focus and development stage product candidates	revenue generally between \$500 million and \$3.0 billion	located predominantly in major biotechnology centers
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The Compensation Committee sets the ranges for the criteria to ensure that it will capture a broad set of companies. The Compensation Committee believes that this provides the best long-term trend data and minimizes year-to-year changes caused by excessive numbers of companies being added or removed due to acquisitions or product successes or failures or other major corporate events. The following table presents the peer group used in 2018 (the 2018 Peer Group), which is unchanged from the 2017 and 2016 peer groups (other than the elimination of Medivation, Inc., which was acquired by Pfizer Inc. in 2016).

Alexion Pharmaceuticals, Inc. Alkermes plc Alnylam Pharmaceuticals, Inc. Endo International plc.	Incyte Corporation Ionis Pharmaceuticals Jazz Pharmaceuticals plc Regeneron Pharmaceuticals, Inc.	Seattle Genetics, Inc. Shire plc United Therapeutics Corporation Vertex Pharmaceuticals Incorporated
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The Compensation Committee deliberately did not include in the 2018 Peer Group any companies outside the biotechnology and specialty pharmaceutical industries, such as contract research organizations and scientific instrument and materials manufacturing and testing companies. Those companies were excluded for the following reasons:

their business models are very different from biotechnology companies like BioMarin

they lack the growth and risk profiles of companies in the biotechnology and specialty pharmaceutical industries

they do not share common financial and operational characteristics of biopharmaceutical companies (for example, high gross margins and significant R&D expenses)

As shown below, when comparing BioMarin against the companies making up its 2018 Peer Group, our employee count is at the 75th percentile, our revenue falls between the 25th percentile and median, our market capitalization is positioned between the median and the 75th percentile, and our TSR over the most recent 1, 3 and 5 years is above the median.

	Employees	Revenue (in millions)	Market Capitalization (in millions)	1-Year TSR	3-Year TSR (annualized)	5-Year TSR (annualized)
75th Percentile	2,847	\$3,860	\$35,719	4%	-1%	6%
50th Percentile (Median)	1,834	\$1,886	\$8,276	-7%	-10%	1%
25th Percentile	1,124	\$765	\$5,402	-31%	-19%	-5%
BioMarin	2,849	\$1,491	\$15,162	-5%	-7%	4%
BioMarin Percentile Rank	75%	36%	63%	56%	57%	59%

The Compensation Committee also reviews the compensation levels and disclosed program design for executives of Amgen, Inc., Biogen Inc., Celgene Corporation, and Gilead Sciences, Inc., as we regularly compete with these companies for employees, particularly for senior positions. However, we generally do not use compensation data from these companies in making pay decisions that directly impact the Chief Executive Officer or other NEO positions because these companies' revenues and market capitalizations are significantly higher than BioMarin's.

After the list of peer companies is approved, management presents the Compensation Committee with recommendations regarding proposed adjustments to compensation elements and a variety of supporting data, including compensation information from the peer group and the Radford Global Life Sciences Compensation survey and additional survey sources from the Compensation Consultant. This is presented individually for each executive officer, including the NEOs, and based on classes of positions for all other employees. Management and the Compensation Consultant each include significant supporting data with the presentation. These recommendations are discussed with and without management present and are discussed with the Compensation Consultant. The Compensation Committee then determines what, if any, adjustments to the compensation elements are appropriate for employees other than the Chief Executive Officer.

The Compensation Committee also reviews market information provided by the Compensation Consultant, considers the Chief Executive Officer’s performance and experience and makes recommendations for adjustments to the Chief Executive Officer’s compensation. These discussions are conducted in executive sessions without involvement by management. The Compensation Committee then presents the recommendations for the Chief Executive Officer to the Board for consideration and approval. The Board must approve each of the Chief Executive Officer’s individual compensation elements.

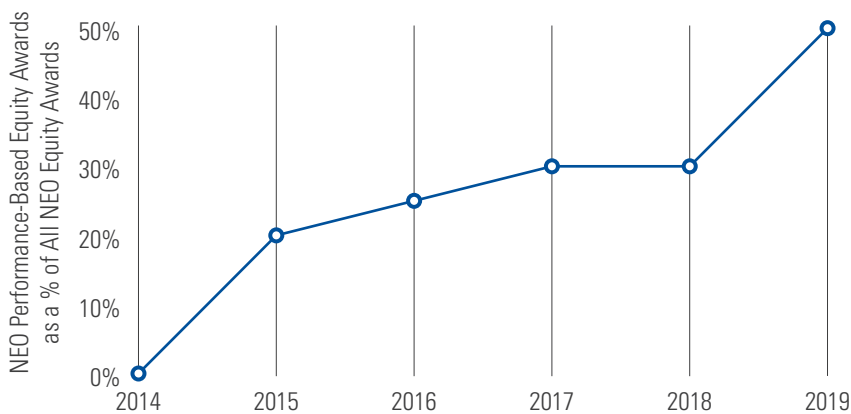
Elements of 2018 Compensation

Our executive compensation program consists of the following three principal components:

Base Salary	⊕	Annual Cash Incentive	⊕	Equity Grants
Base salary rates are reviewed each year based on each executive’s responsibilities, individual performance, achievement of corporate goals and a review of competitive salary and total compensation data.		The annual cash incentive program is based on achievement of corporate goals and an individual performance assessment. The details of the performance goals are discussed below.		Equity grants serve as long-term incentives to ensure that a portion of executives’ total compensation is linked to the Company’s long-term success and to align compensation with the interests of stockholders.

The Compensation Committee establishes a mix of current, short-term and long-term incentive compensation, and cash and non-cash compensation, that it believes is appropriate to achieve the goals of our executive compensation program and our corporate objectives as described above. Generally, the percentage of compensation at risk, either in the form of annual cash incentive or equity compensation, is higher for more senior employees than for those with more limited responsibility, with our executive officers having the highest percentage of their total compensation at risk and allocated to equity compensation. We believe this is appropriate as the more senior employees have more influence over whether we achieve our strategic imperatives and long-term goals. In early 2019, we continued our move to enhance the link between pay and performance by increasing the proportion of performance-based equity we grant from 30% to 50% of the total equity grants for our NEOs, as shown in the graph below.

2014 TO 2019: INCREASING NEO PERFORMANCE-BASED EQUITY AWARDS



Base Salary

General Principles

We provide base salaries to our NEOs to compensate them with a fair and competitive base level of compensation for services during the year. Base salaries for our NEOs are intended to be competitive with those of other individuals in similar positions at the companies with which we compete for talent, taking into consideration that certain of our executive officers have differing scopes of responsibilities than the market data positions. Base salaries are initially based on individual experience, skills and expected contributions, the Compensation Committee's understanding of what executives in similar positions at other peer companies are paid and negotiations with certain executives during the hiring process.

The base salary of each NEO is reviewed annually and may be adjusted to reflect market conditions, the NEO's performance during the prior year, the financial position of the Company and any change in scope of an NEO's responsibilities. We believe that a competitive base salary is a necessary element of any compensation program that is designed to attract and retain talented and experienced executives. We also believe that attractive base salaries can motivate and reward executives for their overall performance.

Merit-based increases in base salary for all of our executive officers, other than our Chief Executive Officer, are approved by the Compensation Committee based on a recommendation from the Chief Executive Officer. Any merit-based increase in base salary for our Chief Executive Officer is approved by the Board and based on an assessment of his performance and a recommendation by the Compensation Committee and a review by the Compensation Committee of the base salary of chief executive officers in our peer group.

2018 and 2019 Salaries

In reviewing our 2017 performance and its impact on salary increases in 2018, the Compensation Committee considered: our efforts in advancing our development programs, particularly our achievements in gaining regulatory approval of Brineura, advancing Palynziq, valoctocogene roxaparvovec and vosoritide, and our continued revenue growth and expense control. The Compensation Committee also considered budget constraints as we continue to aggressively invest our cash flow from operations into our development programs, and the competitive market for recruiting and retaining top talent in our industry. Each NEO is also individually evaluated based on tenure, performance and other factors specific to the NEO. Based on the Company's 2017 performance, in December 2017, the Board and Compensation Committee approved the 2018 salary adjustments for our NEOs as shown below, which became effective in March 2018.

In addition, based on the Company's strong 2018 performance as outlined in "2018 Business Highlights" above, including achieving \$1.49 billion in total revenues, increasing non-GAAP income and narrowing GAAP loss, gaining regulatory approval of Palynziq in the U.S., and achieving product development milestones, the Compensation Committee approved the 2019 salary adjustments shown below, which became effective in March 2019.

Name	2019 Salary Adjustments Effective March 2019		2018 Salary Adjustments Effective March 2018	
	2019 Salary(\$)	Increase from 2018	2018 Salary(\$)	Increase from 2017
Jean-Jacques Bienaimé Chief Executive Officer	1,210,000	4.3%	1,160,000	5.0%
Daniel Spiegelman Executive Vice President and Chief Financial Officer	625,000	4.2%	600,000	6.2%
Jeff Ajer Executive Vice President, Chief Commercial Officer	585,000	4.5%	560,000	5.7%
Robert Baffi Executive Vice President, Technical Operations	585,000	4.5%	560,000	6.7%
Henry Fuchs President, Worldwide Research & Development	700,000	3.7%	675,000	5.5%

Annual Cash Incentive

General Principles and the 2018 Program

We maintain a company-wide annual cash incentive program under which awards are generally based on corporate and individual performance. Our program has one annual cash incentive pool, so we do not separately fund formal corporate and individual performance pools. We believe this allows for more managerial discretion in determining annual cash incentives company-wide and encourage employees at all levels to focus on achievement of the corporate goals. The Compensation Committee's assessment of achievement of the corporate goals determines the size of the one cash incentive pool. The annual cash incentive is paid in the first quarter of each year, based on the Company's and employee's performance in the prior year.

The annual cash incentive program, including corporate goals and target payouts by level, is generally reviewed and approved by the full Board in December at the time the Board considers the budget for the following year. The goals are prepared in an interactive process in which the Compensation Committee works with the Chief Executive Officer and other members of management to develop corporate performance goals that are set at levels that the Compensation Committee believes management can reasonably achieve if we, as a whole, execute on our business plan. The corporate goals are designed to reward specific activities that the Board and Compensation Committee believe will enhance long-term stockholder value by providing a foundation that will enable us to realize our long-term strategic plan. In setting these goals, the Compensation Committee seeks to provide appropriate annual incentives to achieve operational goals that directly support our longer-term goals of commercialization of new products and our long-term profitability. We feel that this type of structure motivates executives to challenge their teams to not only meet but exceed goals that ultimately create value for our stockholders. However, because many of the goals, particularly the development goals, are tied to activities intended to enhance long-term stockholder value, the achievement of any particular goal may not have a meaningful impact on our valuation during the cash incentive year.

As in previous years, the cash incentive pool was determined by two main categories of corporate performance, achievement of financial goals and achievement of goals for our development programs during the measurement year. Each year, we determine the allocation of the target annual cash incentive between financial goals and development goals while recognizing that current and future stockholder value is dependent on the success of each element of our business, but that over the one-year performance period of the annual cash incentive program, one aspect may be more important than the other. In recognition of the importance of our clinical programs, we allocated the annual cash incentive 40% to financial goals and 60% to development goals, which were the same allocations used in 2017. We continued to include a new feature that we added in 2015: the opportunity for an extra 0-20% of weighting for goal achievement for value-creating activities, such as strategic acquisitions and divestitures, which would be awardable only if at least 80% of the financial and development goals were achieved. Accordingly, the total possible weighting of performance goals for the 2018 cash incentive equaled 120%, the same as in 2017 and 2016.

Financial Goals

With respect to the financial goals, the revenue goal payout for the annual cash incentive program was based on an accelerated scale, as in 2017, to emphasize the importance of revenue growth to the Company, to recognize the difficulty in exceeding the sales revenue goal and to be consistent with many of our peers. To incentivize cost control, progress toward GAAP profitability, and increased non-GAAP profitability, the R&D expense and SG&A expense goal payout was based on an accelerated scale instead of the traditional sliding scale used before 2017 and was payable only if we achieved 2018 non-GAAP Income⁽¹⁾ at or above 2017 non-GAAP Income (\$74 million). The threshold funding level remained at 50% (previously lowered from 70% in 2016) and the maximum funding level remained at 200% in 2018 (previously increased from 150% in 2016) in order to remain competitive with peer company practices and serve as a valuable incentive for employees and tool for recruitment and retention. See the table below for details on the payout scales for the financial goals.

⁽¹⁾ For 2017 and 2018, we define non-GAAP Income (Loss) as reported GAAP Net Income (Loss), excluding net interest expense, provision for (benefit from) income taxes, depreciation expense, amortization expense, stock-based compensation expense, contingent consideration expense and gain on sale of intangible asset.



Financial Goal	Threshold Achievement Level	Threshold Funding %	Target Achievement Level	Target Funding %	Maximum Achievement Level	Maximum Funding %
Managed Sales Revenue ⁽¹⁾ of \$1,360 million	Revenue at least 75% of Target	50%	Revenue 100% of Target	100%	Revenue of 125% of Target	200%
R&D and SG&A Expenses ⁽²⁾ of \$1,042 million	Expenses no more than 110% of Target	80%	Expenses 100% of Target	100%	Expenses of 80% Below Target	200%

⁽¹⁾ 2018 Managed Sales Revenue is based on total net product revenue calculated in accordance with U.S. generally accepted accounting principles (U.S. GAAP), except that it excludes net product revenue attributable to Aldurazyme. (Revenue attributable to Aldurazyme is excluded because the product is commercialized by Genzyme Corporation (Genzyme), a wholly owned subsidiary of Sanofi S.A. (Sanofi), under a collaboration agreement with the Company. For further discussion regarding our collaboration with Genzyme, see “Major Commercial Products—Aldurazyme” included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019.) The calculation of the actual result for the financial goals used the same foreign currency exchange rates used for developing such goals.

⁽²⁾ The 2018 R&D and SG&A Expenses are calculated in accordance with U.S. GAAP, except that they exclude the annual cash incentive program and stock-based compensation expenses. The calculation of the actual result for the financial goals used the same foreign currency exchange rates used for developing such goals.

Development Goals

With respect to development goals (*e.g.*, goals related to clinical and preclinical programs), the Board determines broad program expectations for our primary programs in the first quarter of the year and annual cash incentive weighting for each program. The broad goals may include, for example, timing of initiation or completion of clinical trials, achieving specific enrollment goals, completing filings or other milestones with the FDA or similar regulatory agencies, achieving manufacturing targets, completing research programs, and similar events. We have not disclosed the specific program expectations as they are based on various strategic elements, each of which is confidential. The Compensation Committee has determined that disclosure of the goals could result in competitive harm to us. At the time the development goals are set, the Compensation Committee establishes the target levels for each of the goals to be reasonable “stretch” goals, with a maximum payout only in the event of superior performance.

In January, the Compensation Committee reviews the prior year development programs and determines an annual cash incentive payout attributable to that aspect of our business. In making the determination, the Compensation Committee assesses each program individually and its total impact on the Company. The factors the Compensation Committee considers in evaluating the achievement of each development goal include:

- our effectiveness in advancing the development of a program and our portfolio as a whole;
- our effectiveness in adapting to new data generated or other changes to the assumptions implementing the original development plan; and
- the overall value created by the development efforts.

Based on this assessment, the Compensation Committee determines a percentage payout attributable to our development efforts. Similar to the financial goals, the performance rating can be up to 200% of target. However, if the Compensation Committee determines that the development performance does not meet a minimum achievement level, no annual cash incentive associated with the development programs will be paid. Notwithstanding the calculated annual cash incentive amount, the Compensation Committee has discretion to modify payouts for any particular goal or annual cash incentive pool in total as it deems appropriate based on factors such as the actual impact of development efforts in enhancing long-term stockholder value.

We believe this process provides the greatest incentive to management and all employees to maximize the value of our development efforts and adapt to changing circumstances dictated by data generated, corporate development activities or other events. In the past, we have used firm goals established at the beginning of a year, but the Compensation Committee believes that firm goals may not appropriately recognize the fluid nature of drug development and could lead to unintended consequences. For example, if scientific findings suggest that it would be in the best interest of the Company to terminate a program, the goal related to that program may be removed and other program goals may be substituted.

The table below describes our financial, development and value-creating activities goals for the cash incentive for 2018 and our actual performance against those goals. As discussed elsewhere in this Proxy Statement, during our stockholder outreach in 2018, some investors requested we provide greater detail regarding the development goals for each clinical and pre-clinical programs underlying the annual cash incentive program. As a result of such feedback, below we have provided significantly more detail regarding the development goals than we have historically provided.

2018 PROGRAM GOALS AND RESULTS

Goal	Weight (% of Target Incentive)	Actual Result	Pool Contribution ⁽¹⁾ (%)
Financial Goals			
Managed Sales Revenue of \$1,360 million ⁽²⁾	30%	\$1,345 million	29.3%
R&D and SG&A Expenses of \$1,042 million ⁽³⁾	10%	\$1,087 million	9.1%
<i>Sub-Total (Financial Goals)</i>	40%		38.4%
Development Goals			
<i>Near-Term Value Drivers</i>			
Palynziq: regulatory approval by the FDA; marketing authorization application submission to the European Medicines Agency (EMA)	20%	Exceeded goal	—
Vosoritide: achieve enrollment targets in Phase 3 study; initiation of infant/toddler study	10%	Exceeded goal	—
Valoctocogene roxaparvovec: achieve dosing of commercial process and scale material; complete enrollment target in Phase 3 study	20%	Met goal	—
<i>Mid-Term Value Drivers:</i>	10%		—
Tralesinidase alfa: achieve manufacturing and formulation milestones	—	Exceeded goal	—
BMN 290: achieve regulatory submission milestones	—	Did not meet goal	—
<i>Other:</i>	20%		—
Value-Creating Activities	—	Not applicable in 2018	—
<i>Sub-Total (Development Goals)</i>	80%		95.6% ⁽⁴⁾
Total (Financial and Development Goals)	120%		134.0%

⁽¹⁾ Based on actual results.

⁽²⁾ 2018 Managed Sales Revenue is based on total net product revenue calculated in accordance with U.S. GAAP, except that it excludes net product revenue attributable to Aldurazyme. (Revenue attributable to Aldurazyme is excluded because the product is commercialized by Genzyme, a wholly owned subsidiary of Sanofi, under a collaboration agreement with the Company. For further discussion regarding our collaboration with Genzyme, see “Major Commercial Products—Aldurazyme” included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019.) The calculation of the actual result for the financial goals used the same foreign currency exchange rates used for developing such goals.

⁽³⁾ The 2018 R&D and SG&A Expenses are calculated in accordance with U.S. GAAP, except that they exclude the annual cash incentive program and stock-based compensation expenses. The calculation of the actual result for the financial goals used the same foreign currency exchange rates used for developing such goals.

⁽⁴⁾ The Compensation Committee set the pool contribution for all development goals, including value-creating activities, at 95.6%, which was within the calculated range of 75% to 105%. Recognizing that within the calculated range, the success of the development programs as a whole is based on both the actions of the Company as well as external factors outside of the Company’s control, the Compensation Committee determined that setting a total pool contribution amount, rather than setting contribution amounts for each goal, was appropriate.

Based on the results described above, the Compensation Committee determined to fund the annual cash incentive pool at 134% of target.

The 2018 cash incentive targets for each NEO expressed as a percentage of base salary is determined by the employee's position. The target amounts for the NEOs for 2018 cash incentives (which were paid in March 2019) are set forth in the table below. The Compensation Committee allocated a 100% individual performance funding level to Messrs. Ajer, Bienaimé, and Spiegelman. The Compensation Committee believed that matching the corporate funding level was appropriate as these more senior employees had direct influence over whether we achieved company-wide strategic imperatives and long-term goals tied to the annual cash incentive program. The Compensation Committee allocated a 117% individual performance funding level to Drs. Baffi and Fuchs to reward them for exceptional performance, including their instrumental roles in the Company obtaining FDA approval of Palynziq in 2018 and progress made on the valoctocogene roxaparvovec and vosoritide clinical programs. The specific cash incentive amount paid to each NEO for 2018 is set forth below and is also included in the "Summary Compensation Table" in this Proxy Statement.

Name and Principal Position	2018 Cash Incentive Target (% of base salary)	2018 Corporate Funding Level	2018 Individual Performance Funding Level	2018 Cash Incentive Amount(\$)
Jean-Jacques Bienaimé Chief Executive Officer	110%	134%	100%	1,709,840
Daniel Spiegelman Executive Vice President and Chief Financial Officer	60%	134%	100%	482,400
Jeff Ajer Executive Vice President, Chief Commercial Officer	60%	134%	100%	450,240
Robert Baffi Executive Vice President, Technical Operations	60%	134%	117%	525,240
Henry Fuchs President, Worldwide Research & Development	65%	134%	117%	687,925

2019 Program

In February 2019, the Compensation Committee evaluated the annual cash incentive targets for the cash incentive opportunity for our NEOs for 2019, which is payable in early 2020. Based on the review, the Compensation Committee determined to maintain the current annual cash incentive target percentages for all NEOs, except Mr. Bienaimé. The Compensation Committee believes that the annual cash incentive opportunities for each of the NEOs, other than Mr. Bienaimé, continue to be appropriate based on a combination of the relative experience and tenure of each NEO, as well as each NEO's position within the Company and compensation practices within our industry. Mr. Bienaimé's annual cash incentive target percentage was increased from 110% in 2018 to 120% in 2019. The Compensation Committee increased Mr. Bienaimé's target to further emphasize the link between his pay and performance.

Equity Compensation

The determination as to whether an employee receives an equity award as part of the Company-wide annual employee equity grant, and the amount of any such award, depends on the employee's performance and level. Also, to be eligible for an annual equity award, an employee must have been employed by the first Monday in October of the previous year. We grant equity awards to virtually all newly hired employees, mainly in the form of RSUs below the vice president level and a mix of RSUs and options for vice presidents and above. Grants for new hires, with the exception of grants for executive officers reporting directly to the Chief Executive Officer, are approved by the Chief Executive Officer, subject to guidelines approved by the Compensation Committee. The guidelines are based primarily on competitive equity grant practices in our industry and market data. All other grants are approved by the Compensation Committee or the full Board.

2018 Annual Grant

The annual grant in 2018 was made in March 2018 to coincide with employees' year-end performance reviews and other compensation changes (base salary adjustment and annual cash incentive). Details regarding equity awards granted to the NEOs in March 2018 is set forth in the "Grants of Plan-Based Awards" table in this Proxy Statement.

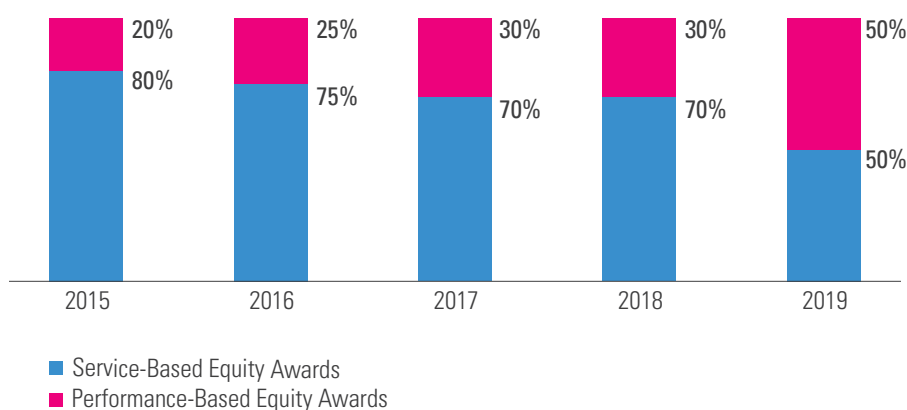
Stock options have an exercise price equal to 100% of the fair market value of our common stock (the closing price of our common stock on the Nasdaq Global Select Market) on the date of the grant. They have value only to the extent that the market price of our common stock increases after the date of the grant.

The allocation of equity awards between stock options and RSUs varies by employee and location. Similar to our new hire equity granting practices, in most of the countries where we operate, all employees below vice president level that are granted equity awards receive only RSUs, whereas vice presidents and above receive a mix of RSUs and stock options.

Increased Allocation to Performance-Based Awards

To better align the interests of our executive officers with those of our stockholders, since 2015, the Compensation Committee has allocated an increasing portion of each NEO's annual equity grants to performance-based awards. The allocation among three forms of equity awards (stock options, service-based RSUs and performance-based RSUs) was based on the Black-Scholes valuation model using a trailing average closing price of our common stock. As reflected in the chart below, for 2018 and 2017, the allocation was 40% stock options, 30% service-based RSUs, and 30% performance-based RSUs. This represents an increase in performance-based awards from the 2016 and 2015 equity grants of 25% and 20%, respectively in the form of performance-based RSUs. As discussed above, starting with the equity grants made in March 2019, we significantly increased the proportion of performance-based RSUs as a percentage of total long-term equity compensation. Now, 50% of long-term equity compensation is denominated in performance-based RSUs.

INCREASING NEO PERFORMANCE-BASED EQUITY AWARDS FROM 2015 TO 2019



20% -> 50%
Increasing proportion of performance-based awards better aligns the interests of our executive officers with those of our stockholders

Performance-Based RSUs

To achieve our profitability goal in the near future, in 2018, the Compensation Committee sought to incentivize senior executives to increase sales by granting RSU awards with a 2018 revenue target performance condition. Under the terms of these awards, the number of performance-based RSUs earned are calculated by multiplying the target number of performance-based RSUs by a revenue multiplier. The awards are also subject to a three-year service-based vesting period following the grant date.

In 2018, we aligned the performance-based RSUs with the revenue goal portion of the annual cash incentive program, thus further incentivizing our executives to focus on revenue growth. The performance-based RSUs revenue target and the methodology used to calculate managed revenues for purposes of determining the revenue multiplier is the same as for the 2018 annual cash incentive program described above.

For 2018, the revenue target for performance-based RSUs was \$1,360 million of managed revenues (defined as the Company's net product revenues, excluding net revenues attributable to Aldurazyme, and determined using fixed foreign currency exchange rates). (Revenue attributable to Aldurazyme is excluded because the product is commercialized by Genzyme, a wholly owned subsidiary of



Sanofi, under a collaboration agreement with the Company. For further discussion regarding our collaboration with Genzyme, see “Major Commercial Products—Aldurazyme” included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019.) The revenue multiplier was determined based on the Company’s performance against the revenue target, which could range between 50% and 200%, with a threshold achievement level of 75% of target required for earning any RSUs and a ceiling achievement level of 125% of target. Based on the Company’s actual 2018 performance against the 2018 revenue target, the Company applied a multiplier of 98% to the target number of performance-based RSUs to determine the number of performance-based RSUs earned in 2018. The earned performance-based RSUs are also subject to a three-year service-based vesting period following the grant date.

As discussed above, beginning with the equity grants made in March 2019, 50% of the performance-based RSUs will be earned based on the percentile of the Company’s relative TSR performance over a three-year period as compared to the TSR performance of companies that make up the NASDAQ Biotechnology Index over the same three-year period. The other 50% of the performance-based RSUs will continue to be earned based on revenue performance. We expect that by the 2020 annual equity grant, 100% of our performance-based RSU grants will use a three-year performance period.

Service-Based RSUs

The service-based RSUs awarded in 2018 are subject to a four-year service period, which is the same vesting schedule for service-based RSUs awarded as part of annual equity grants in recent years.

Stock Options

Stock options granted to the NEOs in 2018 vest over four years, which is the same vesting schedule for stock options awarded as part of annual equity grants in recent years. We believe stock options further emphasize the pay-for-performance link and that the four-year vesting schedule provides our NEOs an incentive to add value to the Company over the long term.

Compensation Committee Considerations

The equity compensation granted to the NEOs in March 2018 was determined based on a number of factors. The Compensation Committee gave particular consideration to our performance, and also considered equity grants of the 2018 Peer Group based on a Black-Scholes valuation and data from the Radford Life Sciences survey and the Compensation Consultant. For a discussion of assumptions used in calculating the Black-Scholes valuation see Note 15 to our financial statements for the year ended December 31, 2018, included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019.

In determining the allocation of stock options and RSUs (service-based and performance-based), the Compensation Committee considered a variety of factors, including the effect on the total number of shares to be issued under our equity plan, peer group practices and the comparative value of stock options and RSUs. Overall, the Compensation Committee sought to set equity compensation to be competitive in the market to retain the talent that the Company needs. The considerations in differentiating grants among the NEOs were principally level of responsibility and experience. The Committee also considered:

- historic grants;
- retention value;
- level of responsibility;
- experience of individual;
- individual contribution; and
- expected future contribution.

We have reviewed our historical stock option grant practices to consider if the stock options were properly dated. Based on such review, we believe that all stock options were issued on the date approved by the Board or a properly authorized committee and that the exercise price for each stock option issued since the date of our initial public offering was the closing price of our common stock on the date of issuance, unless the stock option grant specifically approved a different price in accordance with the terms of the applicable stock option plan pursuant to which such stock option was granted.

Other Benefits and Perquisites

We provide a comprehensive benefits package, including health insurance, dental insurance, life insurance, disability insurance, a 401(k) matching program, and an employee stock purchase plan, which is intended to meet the requirements of Section 423 of the Code. These benefits are generally available to all employees, including our NEOs. The 401(k) matching program matches 100% of an employee's contribution up to the lesser of 6% of his or her annual salary or \$16,000 per year (\$19,000 per year for 2019), with immediate vesting of all 401(k) matches.

We provide our NEOs, along with other officers, a limited number of perquisites. The specific perquisite amounts for each NEO for 2016, 2017 and 2018 are set forth under "All Other Compensation" in the "Summary Compensation Table" in this Proxy Statement.

An item is not a perquisite if it is integrally and directly related to the performance of the executive's duties. An item is a perquisite if it confers a direct or indirect benefit that has a personal aspect, without regard to whether it may be provided for some business reason or for the convenience of the Company, unless it is generally available on a non-discriminatory basis to all employees.

We provide the following perquisites to our NEOs:

- **Sporting and Event Tickets.** We purchase season and other tickets to sporting, cultural and other events. When these tickets are provided to executives (including our NEOs) for personal use, the value of the tickets is included in their compensation. These tickets are not used for the entertainment of healthcare professionals.
- **Reimbursement for Financial and Tax Planning and Preparation Services.** We reimburse our executive officers, including our NEOs, for personal financial planning and tax preparation. The benefit is limited to \$5,000 annually for our Chief Executive Officer, \$3,500 annually for Senior Vice Presidents and Executive Vice Presidents and \$2,500 annually for all other Vice Presidents and is taxable to the executive. The perquisite is intended to encourage and assist our executives to engage knowledgeable experts to assist with financial and tax planning.
- **Life Insurance.** In accordance with the terms of our employment agreement with Mr. Bienaimé, as amended and restated on December 13, 2017, we provide Mr. Bienaimé with a fully paid, whole life insurance policy with a stated death benefit of \$500,000. This benefit is taxable to Mr. Bienaimé. In addition, we provide Mr. Bienaimé with term life insurance coverage generally provided to all employees with a death benefit up to two times an employee's salary. (Mr. Bienaimé's death benefit is subject to a \$1,000,000 cap; all other employees are subject to a \$600,000 cap.)
- **Health Assessments.** We offer our executive officers, including our NEOs, annual comprehensive health assessments at a local medical facility. The non-taxable perquisite is intended to encourage our executives to engage knowledgeable experts to assist with their health and well-being.

We also offer our executive officers severance benefits. See the "—Post-Employment Obligations" section of this Proxy Statement below.

Nonqualified Deferred Compensation

Our NEOs, other members of management, and other highly-compensated employees are eligible to enroll in our Nonqualified Deferred Compensation Plan under which they may elect to defer up to 100% of RSU awards and up to 50% of salary and annual cash incentive awards, in each case subject to limitations to allow us to make necessary withholding payments, and thereby defer taxation of these deferred amounts until actual payment of the deferral amounts in future years. See the table within the "Nonqualified Deferred Compensation Plan" section of this Proxy Statement for detailed information regarding the account balances for each NEO.

Post-Employment Obligations

We have employment agreements with all of our executive officers (including all of our NEOs) that provide severance benefits if an executive terminates employment with us for a good reason specified in the employment agreement (e.g., a change in work location of more than a specified distance from the previous location) or if the executive is terminated without cause or in connection with a corporate transaction or change in control. See the "Potential Payments Upon Termination or Change in Control" section of this Proxy Statement for a more detailed discussion of the terms of these arrangements and the amounts payable to our NEOs under them.



We believe that these arrangements enhance retention in the face of the disruptive impact of a highly competitive industry and any possible change in control of the Company. In addition, the program is intended to align executive and stockholder interests by enabling executives to consider corporate transactions that are in the best interests of our stockholders and other constituents without undue concern over whether the transactions may jeopardize the executives' own employment.

No post-employment benefits are payable to our NEOs under their employment agreements if their termination is for cause, for a voluntary resignation (other than as set forth above), retirement or due to death (except for a fully paid whole life insurance policy with a stated death benefit of \$500,000 maintained for Mr. Bienaimé).

To remain competitive with peer company practices and serve as a valuable benefit for employee recruitment and retention, in June 2015 the Board adopted a policy for the acceleration of equity awards upon the death of an employee (including our NEOs). Upon the death of an employee, all the employee's unvested equity awards with time-based vesting vest in full and all unvested equity awards with performance-based vesting vest in full as if the target values had been achieved, and such awards remain exercisable for one year after death. As of December 31, 2018, each of our NEOs was eligible for this benefit.

To reward long-standing service to the Company, in December 2016, we clarified the scope of the Retirement Benefit for Directors and Senior Officers policy by amending it so that Directors and officers with a title of "Vice President" or above who have a combined age and total term of employment (or service as Director) of at least 65 years at the time of terminating service to the company for any reason other than cause are permitted to exercise all their stock options that were both vested and outstanding as of the date of termination of service through the term of their stock options, as if their service were continuing. As of December 31, 2018, all of the NEOs were eligible for this benefit.

Furthermore, in December 2016, the Compensation Committee approved a new retirement benefit applicable to certain of the Company's senior executives, including the NEOs, but specifically excluding the Chief Executive Officer. The retirement benefit provides that, upon a senior executive's attainment of age 64 and completion of at least five years of service with the Company, (i) all of the executive's then-unvested RSUs (which were amended to include this feature) and (ii) all RSU grants and non-qualified stock option award grants made after adoption of the retirement benefit, whether time-based or performance-based, will continue to vest according to their terms, whether or not the executive's service is continuing; provided, however, that the executive's service is not terminated for cause.

Our Decision-Making Process

The Compensation Committee supervises the implementation of our compensation philosophy. The Compensation Committee charter requires that the Compensation Committee meet when deemed necessary or desirable by the Committee or its Chair, generally at least four times per year. The agenda for each meeting is usually developed by the Chair of the Compensation Committee, in consultation with our Chief Executive Officer, head of Human Resources, General Counsel and the Compensation Committee's independent compensation consultant (the Compensation Consultant). The Compensation Committee meets regularly in executive session. However, Mr. Bienaimé, our Chief Executive Officer, Mr. Davis, our Executive Vice President, General Counsel and Secretary, and Ms. Amy Wireman, our Group Vice President, Human Resources, in addition to the Compensation Consultant, regularly attend portions of the Compensation Committee meetings to provide analysis and information to assist the Compensation Committee with its recommendations on various human resources and compensation matters. The members of management generally do not participate in the executive sessions of the Compensation Committee unless invited by the Compensation Committee to provide specific information during closed session. No individual member of management is present for votes related to such individual's compensation.

Compensation Committee

The duties and responsibilities of the Compensation Committee are set forth above in the "Information Regarding Committees of the Board of Directors" section of this Proxy Statement and detailed in the charter of the Compensation Committee. The full text of the Compensation Committee Charter, as amended in June 2016, can be found in the Corporate Governance section of the Investors section of our website at www.bmrn.com. Information on our website is NOT incorporated by reference in this Proxy Statement. The composition of the Compensation Committee is determined by our Board, after a recommendation by the CGN Committee.

Compensation Consultant

The Compensation Committee is authorized to select and retain independent advisors and counsel to assist in carrying out its duties and responsibilities. The Company provides appropriate funding to the Compensation Committee to do so. The Compensation Consultant reports directly to the Compensation Committee, which retains sole authority to direct the work and employ the Compensation Consultant. The Compensation Committee regularly reviews the services provided by the Compensation Consultant and believes that the engagement was consistent with Nasdaq listing standards and does not raise any conflicts of interest. The Compensation Committee continues to monitor the independence of its Compensation Consultant on a periodic basis.

Since August 2016, Mercer has served as the Compensation Consultant to the Compensation Committee. The Compensation Consultant conducts analyses and provides advice on, among other things, the appropriate peer group, executive compensation for our Chief Executive Officer and other executive officers, equity compensation, and compensation trends in the biotechnology industry. As part of its analysis, the Compensation Consultant collects and analyzes compensation information from a comparative group of biotechnology companies or “peer group” approved by the Compensation Committee. The Compensation Committee evaluates the criteria used in establishing the peer group at least annually, to ensure that it appropriately represents the companies competing with us to attract and retain talent and represents a sufficiently broad group to provide meaningful data trends across multiple years. The Compensation Committee seeks input from management in addition to the Compensation Consultant to ensure the peer group is consistent with our current business model. The peer group used for 2018 is discussed below.

In February 2019, Mercer affirmed to the Compensation Committee that the total fees paid to it by BioMarin do not represent a significant concentration of its revenue for its most recent fiscal year, that it had policies in place to mitigate conflicts of interest, that it was not aware of any business or personal relationships between the members of its consulting team serving BioMarin and any member of the Compensation Committee, that it was not aware of any member of its consulting team serving BioMarin owning any stock of BioMarin, and that it is not aware of any business or personal relationships between the Compensation Consultant or the Company’s executive officers. The total dollar amount of services that Mercer provided to BioMarin in 2018 was \$997,237, of which approximately \$206,096 was paid in connection with executive and Director remuneration services and approximately \$791,141 was paid in connection with health and benefit consulting services. In addition, for this same period, fees paid to Mercer’s sister company Marsh approximated \$327,231, which was paid in connection with insurance brokerage services. The Compensation Committee has reviewed the level of services provided to BioMarin by Mercer and does not believe the services give rise to a conflict or compromise Mercer’s independence in advising the compensation committee.

Accounting and Tax Considerations

Nonqualified Deferred Compensation—On October 22, 2004, the American Jobs Creation Act of 2004 was signed into law, adding Section 409A that changed the tax rules applicable to nonqualified deferred compensation arrangements. A more detailed discussion of our nonqualified deferred compensation arrangements is provided below under the “*Nonqualified Deferred Compensation Plan*” section of this Proxy Statement.

Accounting for Stock-Based Compensation—Stock-based compensation is accounted for in accordance with FASB ASC Topic 718, *Compensation – Stock Compensation*, which requires us to estimate and record an expense for each equity award over the vesting period of the award. For assumptions used in determining these values, see Note 15 to the consolidated financial statements contained in the Company’s Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019. Generally, the Compensation Committee does not make compensation decisions based on the tax or accounting treatment of any particular form of compensation; however, it has considered and approved and may in the future consider the grant of alternative equity incentives to our NEOs in lieu of stock option grants in light of the accounting impact of FASB ASC Topic 718 with respect to stock option grants and other considerations.

Section 162(m)—Section 162(m) of the 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 that such compensation exceeds \$1 million per officer in any year. In connection with 2017 tax reform legislation, the exemption from the deduction limit under Section 162(m) for “performance-based compensation” was repealed, 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 “grandfathered” arrangements in place as of November 2, 2017. We intend to continue to monitor and review related guidance from the Internal Revenue Service as it becomes available.



In determining the form and amount of compensation for our NEOs, the Compensation Committee may continue to consider all elements of the cost of such compensation. While the Compensation Committee considers the deductibility of awards as one factor in determining executive compensation, the Compensation Committee also looks 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 compensation is not deductible by us for tax purposes.

Director and Officer Stock Ownership Guidelines

To preserve the link between the interests of executives and those of stockholders, the Compensation Committee and the Board established stock ownership guidelines for our executives. See the “*Director and Officer Stock Ownership Guidelines*” section of this Proxy Statement for a more detailed discussion of our stock ownership guidelines.

Compensation Committee Report⁽¹⁾

The Compensation Committee has reviewed and discussed the *Compensation Discussion and Analysis* contained herein with management, and based on such review and discussions, the Compensation Committee has recommended to the Board that the *Compensation Discussion and Analysis* be included in this Proxy Statement and incorporated into BioMarin’s Annual Report on Form 10-K for the year ended December 31, 2018.

Respectfully submitted on April 12, 2019 by the members of the Compensation Committee of the Board of Directors:

Michael Grey, Chair
Robert J. Hombach
Alan J. Lewis, Ph.D.
David E.I. Pyott, M.D. (Hon.)

⁽¹⁾ The material in this report is not deemed “soliciting material,” is not deemed “filed” with the SEC, is not subject to Regulation 14A or 14C or to the liabilities of Section 18 of the Exchange Act, and is not to be incorporated by reference into any filing of BioMarin under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Executive Compensation Tables

Summary Compensation Table

The following table discloses compensation awarded to, earned by or paid to the following persons during 2018, 2017 and 2016: (i) Jean-Jacques Bienaimé, our Chief Executive Officer; (ii) Daniel Spiegelman, our Chief Financial Officer; and (iii) Jeff Ajer, Robert A. Baffi, Ph.D. and Henry J. Fuchs, M.D., the three most highly-compensated officers other than the Chief Executive Officer and Chief Financial Officer who were serving as officers at the end of fiscal year 2018 and whose salary and bonus exceeded \$100,000. These individuals are referred to throughout this Proxy Statement as the “Named Executive Officers” or NEOs.

Name and Principal Position	Year	Salary ⁽¹⁾	Stock Awards ⁽²⁾	Option Awards ⁽³⁾	Non-Equity Incentive Plan Compensation ⁽⁴⁾	All Other Compensation ⁽⁵⁾	Total
Jean-Jacques Bienaimé Chief Executive Officer	2018	\$1,149,423	\$7,745,268	\$4,958,437	\$1,709,840	\$64,925	\$15,627,893
	2017	1,094,423	7,783,876	5,253,707	1,726,010	58,969	15,916,985
	2016	1,037,500	8,683,394	5,782,125	1,386,000	48,582	16,937,601
Daniel Spiegelman Executive Vice President, Chief Financial Officer	2018	593,269	2,085,908	1,335,054	482,400	25,072	4,521,703
	2017	559,231	2,133,048	1,439,891	481,380	28,325	4,641,875
	2016	530,192	2,380,258	1,584,825	382,793	21,135	4,899,203
Jeff Ajer Executive Vice President, Chief Commercial Officer	2018	554,232	2,146,078	1,373,198	450,240	21,635	4,545,383
	2017	524,231	2,133,048	1,439,891	451,560	19,572	4,568,302
	2016	490,385	2,316,017	1,541,900	357,750	16,361	4,722,413
Robert A. Baffi, Ph.D. Executive Vice President, Technical Operations	2018	553,270	2,025,736	1,296,910	525,240	26,762	4,427,918
	2017	524,231	2,075,350	1,401,232	447,300	25,115	4,473,228
	2016	491,347	2,316,017	1,541,900	357,750	24,265	4,731,279
Henry J. Fuchs, M.D. President, Worldwide R&D	2018	668,269	2,680,926	1,716,498	687,925	24,111	5,777,729
	2017	637,231	3,460,084	2,335,264	590,720	22,125	7,045,424
	2016	594,231	2,830,780	1,884,450	465,075	18,491	5,793,027

⁽¹⁾ See the “Compensation Discussion and Analysis—Base Salary” section of this Proxy Statement for further information regarding amounts in this column.

⁽²⁾ The amounts in this column reflect the aggregate grant date fair value computed in accordance with FASB ASC Topic 718 of service-based RSUs and performance-based RSUs granted in 2018. For the performance-based RSUs awarded in 2018, the grant date fair market value was computed in accordance with FASB ASC Topic 718 using the closing price of our common stock on the date of grant. See the “Compensation Discussion and Analysis—Equity Compensation” section of this Proxy Statement for further information regarding amounts in this column. The table below shows the target and maximum payouts that were possible for the performance-based RSUs awarded in 2018 based on the value at the date of grant and the payout ranges.

NEO	Target Payout	Maximum Payout
Jean-Jacques Bienaimé	\$3,872,634	\$7,745,268
Daniel Spiegelman	\$1,042,954	\$2,085,908
Jeff Ajer	\$1,073,039	\$2,146,078
Robert A. Baffi, Ph.D.	\$1,012,868	\$2,025,736
Henry J. Fuchs, M.D.	\$1,340,463	\$2,680,926



In 2019, based on the Company's actual 2018 performance against the revenue target, the Company applied a multiplier of 98% to the target number of performance-based RSUs granted during 2018 to determine the number of performance-based RSUs actually earned. See footnote (5) and the related amounts in the "Outstanding Equity Awards at Fiscal Year-End" table below for the number of performance-based RSUs awarded during 2018 that were actually earned and the value of such earned performance-based RSUs using the closing price of our common stock on December 31, 2018.

- (3) The amounts in this column reflect the aggregate grant date fair values computed in accordance with FASB ASC Topic 718 and exclude the effect of estimated forfeitures. For assumptions used in determining these values, see Note 15 to the consolidated financial statements contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019. See the "Compensation Discussion and Analysis—Equity Compensation" section of this Proxy Statement for further information regarding amounts in this column.
- (4) Amounts noted for 2018 represent amounts earned by the NEOs during 2018, but paid in 2019. Amounts noted for 2017 represent amounts earned by the NEOs during 2017, but paid in 2018. Amounts noted for 2016 represent amounts earned by the NEOs during 2016, but paid in 2017. See the "Compensation Discussion and Analysis—Annual Cash Incentive" section of this Proxy Statement for further information regarding amounts in this column.
- (5) These amounts represent the amounts paid for personal tax preparation/financial planning consultation, vested 401(k) matching, tickets to sporting, cultural and other events and imputed income associated with life insurance premium payments for each NEO. See the "Compensation Discussion and Analysis—Other Benefits and Perquisites" section of this Proxy Statement for further information regarding amounts in this column.

2018 CEO Pay Ratio

As required by the Dodd-Frank Act and SEC Regulation S-K of the Exchange Act, we are providing the following information about the relationship of the annual total compensation of our CEO to the annual total compensation of our median-paid employee for 2018 (our "CEO pay ratio"). Our CEO pay ratio is a reasonable good faith estimate calculated in a manner consistent with Item 402(u) of Regulation S-K.

Our CEO pay ratio for 2018, calculated as described below, was 97 to 1. This ratio was based on the following:

- the annual total compensation of our CEO, determined as described below, was \$15,627,893; and
- the median of the annual total compensation of all employees (other than our CEO), determined in accordance with SEC rules and as described below, was \$160,698.

Methodology for Determining Our Median Employee

As permitted by the SEC rules, we used the same median employee as in 2017, as there were no significant changes to our median employee's status, our employee population or our compensation programs in 2018. The methodology and the material assumptions and estimates we used to determine the median employee in 2017 were as follows:

Employee Population

- **Total Global Population.** We determined that, as of October 2, 2017, the date we selected to identify the median employee, our employee population consisted of approximately 2,500 individuals working for BioMarin Pharmaceutical Inc. and our consolidated subsidiaries, with approximately 75% of these individuals located in the United States and approximately 25% located outside the United States.

- **De Minimis Exemption.** As permitted by SEC rules, we have chosen to exclude employees who are employed in certain jurisdictions from the determination of our median employee, given the relatively small number of employees in those jurisdictions and the estimated additional time, effort and expense that would be required to obtain and analyze their compensation information. In total, we excluded less than 5% of our non-U.S. workforce (95 individuals) for purposes of identifying the median employee, as shown in the table below. As noted above, the total number of our U.S. and non-U.S. employees irrespective of this de minimis exemption as of October 2, 2017 was approximately 2,500.

<i>De Minimis</i> Exemption Jurisdictions	Number of Employees
Argentina	10
Chile	3
China	4
Colombia	13
Croatia	1
Denmark	1
Hungary	1
Lithuania	1
Malaysia	1
Mexico	5
Netherlands	29
Poland	1
Russia	8
Slovakia	1
Taiwan	3
Turkey	13
Total Number of Employees Excluded Pursuant to the <i>De Minimis</i> Exemption	95

Compensation Measure Used to Identify the Median Employee

Given the geographical distribution of our employee population, we use a variety of pay elements to structure the compensation arrangements of our employees. Consequently, for purposes of measuring the compensation of our employees to identify the median employee, rather than using annual total compensation, we selected annualized base salary plus actual paid annual cash incentive compensation (annual bonus) and allowances paid through October 2, 2017 as the compensation measure.

- We annualized the compensation of employees to cover the full calendar year, and also annualized any new hires in 2017 as if they were hired at the beginning of the fiscal year, as permitted by SEC rules, in identifying the median employee.
- We did not make any cost-of-living adjustments in identifying the median employee.
- Using this methodology, we determined the median-paid employee for the year ended December 31, 2017 and used the same median employee for the year ended December 31, 2018.

Annual Total Compensation of Median Employee

To determine the annual total compensation of the median employee to calculate the ratio, we identified and calculated the elements of that employee's compensation for 2018 in accordance with the requirements of Item 402(c)(2)(x) of Regulation S-K, resulting in annual total compensation in the amount of \$160,698.

Annual Total Compensation of Chief Executive Officer

With respect to the annual total compensation of our CEO, in accordance with SEC rules, we included the amount reported for Mr. Bienaimé in the "Total" column for 2018 in the Summary Compensation Table included in this Proxy Statement.

Grants of Plan-Based Awards

The following table sets forth certain information for each plan-based award during fiscal year 2018 to each of the NEOs.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards ⁽¹⁾			Estimated Future Payouts Under Equity Incentive Plan Awards ⁽²⁾			All Other Stock Awards: Number of Shares of Stock or Units ⁽³⁾	All Other Option Awards: Number of Securities Underlying Options ⁽⁴⁾	Exercise or Base Price of Option Awards ⁽⁵⁾	Grant Date Fair Value of Stock and Option Awards ⁽⁶⁾
		Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)	Target (#)	Maximum (#)				
Jean-Jacques Bienaimé	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	—	148,190	83.57	4,958,437
	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	46,340	—	—	3,872,634
	3/15/2018	— ⁽⁷⁾	—	—	23,170	46,340	92,680	—	—	—	3,872,634
	n/a	— ⁽⁷⁾	1,276,000	2,552,000	—	—	—	—	—	—	—
Daniel Spiegelman	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	—	39,900	83.57	1,335,054
	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	12,480	—	—	1,042,954
	3/15/2018	— ⁽⁷⁾	—	—	6,240	12,480	24,960	—	—	—	1,042,954
	n/a	— ⁽⁷⁾	360,000	720,000 ⁽⁸⁾	—	—	—	—	—	—	—
Jeff Ajer	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	—	41,040	83.57	1,373,198
	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	12,840	—	—	1,073,039
	3/15/2018	— ⁽⁷⁾	—	—	6,420	12,840	25,680	—	—	—	1,073,039
	n/a	— ⁽⁷⁾	336,000	672,000 ⁽⁸⁾	—	—	—	—	—	—	—
Robert A. Baffi, Ph.D.	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	—	38,760	83.57	1,296,910
	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	12,120	—	—	1,012,868
	3/15/2018	— ⁽⁷⁾	—	—	6,060	12,120	24,240	—	—	—	1,012,868
	n/a	— ⁽⁷⁾	336,000	672,000 ⁽⁸⁾	—	—	—	—	—	—	—
Henry J. Fuchs, M.D.	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	—	51,300	83.57	1,716,498
	3/15/2018	— ⁽⁷⁾	—	—	—	—	—	16,040	—	—	1,340,463
	3/15/2018	— ⁽⁷⁾	—	—	8,020	16,040	32,080	—	—	—	1,340,463
	n/a	— ⁽⁷⁾	438,750	877,500 ⁽⁸⁾	—	—	—	—	—	—	—

⁽¹⁾ *Annual Cash Incentive:* Amounts represent potential payments under our 2018 cash incentive program, which were paid in 2019. For further discussion of our annual cash incentive program, see the “*Compensation Discussion and Analysis—Annual Cash Incentive*” section of this Proxy Statement and see the “*Summary Compensation Table*” above for amounts actually paid under the 2018 cash incentive program.

⁽²⁾ *Performance-Based RSUs:* Amounts represent the potential numbers of performance-based RSUs based upon achievement of the 2018 revenue target performance condition. Under the terms of these awards, the number of performance-based RSUs earned are calculated by multiplying the target number of performance-based RSUs by a revenue multiplier (determined based on the Company’s performance against the revenue target) which could range between 50% and 200%. In 2019, based on the Company’s actual 2018 performance against the revenue target, the Company applied a multiplier of 98% to the target number of performance-based RSUs granted during 2018 to determine the number of performance-based RSUs actually earned. See footnote (5) and the related amounts in the “*Outstanding Equity Awards at Fiscal Year-End*” table below for the number of performance-based RSUs awarded during 2018 that were actually earned and the value of such earned performance-based RSUs using the closing price of our common stock on December 31, 2018. The awards are also subject to a three-year service-based vesting period following the grant date. For further discussion of the performance-based RSU awards granted in 2018, see the “*Compensation Discussion and Analysis—Equity Compensation*” section of this Proxy Statement. For a description of acceleration and extended vesting terms applicable to certain of the awards, please see the “*Compensation Discussion and Analysis—Post-Employment Obligations*” and “*Executive Compensation Tables—Potential Payments upon Termination or Change in Control*” sections of this Proxy Statement.

- ⁽³⁾ *Service-Based RSUs:* All service-based RSUs vest over a four-year period, vesting at the rate of one fourth on the anniversary of the grant date and one fourth each anniversary of the grant date thereafter during the recipient's continued service. For a description of acceleration and extended vesting terms applicable to certain of the awards, please see the "Compensation Discussion and Analysis—Post-Employment Obligations" and "Executive Compensation Tables—Potential Payments upon Termination or Change in Control" sections of this Proxy Statement.
- ⁽⁴⁾ *Stock Options:* Stock options vest 12/48^{ths} on the twelve-month anniversary of the date of grant, and 1/48th per month thereafter for the next three years, and remain exercisable until expiration of the stock option (ten years after the date of grant). For a description of acceleration and extended vesting terms applicable to certain of the awards, please see the "Compensation Discussion and Analysis—Post-Employment Obligations" and "Executive Compensation Tables—Potential Payments upon Termination or Change in Control" sections of this Proxy Statement.
- ⁽⁵⁾ Stock options were granted at an exercise price equal to the closing price of our common stock on the Nasdaq Global Select Market on the date of the grant.
- ⁽⁶⁾ The amounts presented above represent the aggregate grant date fair value of the stock option grant or RSU award computed in accordance with FASB ASC Topic 718. The grant date fair market value for stock option awards was \$33.46 per share and the grant date fair market value of the RSU awards was the closing price of our common stock on the Nasdaq Global Select Market on the date of the respective grant. For assumptions used in determining the grant date fair market value of stock options granted, see Note 15 to the consolidated financial statements contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019.
- ⁽⁷⁾ The potential payouts under our 2018 cash incentive program are performance-driven and completely at risk; therefore, the minimum possible payout is zero.
- ⁽⁸⁾ The maximum achievement for corporate goals under the 2018 cash incentive program is 200%. For further discussion of our annual cash incentive program, see the "Annual Cash Incentive" section of this Proxy Statement and see the "Summary Compensation Table" in this Proxy Statement for amounts actually paid under the 2018 cash incentive program.

The number of stock options and RSUs granted to the Chief Executive Officer is determined based on recommendations by the Compensation Committee and is approved by the Board and the number of stock options and RSUs granted to the other NEOs is determined based on a recommendation from the Chief Executive Officer and is approved by the Compensation Committee. See the "Equity Compensation" section of this Proxy Statement for additional information regarding grant practices.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth the outstanding unexercised stock options granted pursuant to equity awards as of the end of fiscal year 2018 for each of the NEOs.

Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable ⁽¹⁾ (#)	Number of Securities Underlying Unexercised Options Unexercisable ⁽¹⁾ (#)	Option Exercise Price (\$) ⁽²⁾	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 (\$) ⁽⁴⁾
Jean-Jacques Bienaimé	5/12/2009	92,000	—	14.39	5/11/2019		
	5/12/2010	140,000	—	21.51	5/11/2020		
	5/12/2011	140,513	—	26.49	5/11/2021		
	5/8/2012	140,000	—	37.46	5/7/2022		
	5/15/2013	220,500	—	67.81	5/14/2023		
	6/4/2014	191,000	—	63.10	6/3/2024		
	3/3/2015	84,843	5,657	108.36	3/2/2025	9,900 ⁽³⁾	842,985
	3/15/2016	93,534	42,516	83.43	3/14/2026	30,355 ⁽³⁾	2,584,728
	3/15/2016					14,892 ⁽⁵⁾	1,268,054
	3/22/2017	63,021	81,029	87.42	3/21/2027	33,390 ⁽³⁾	2,843,159
	3/22/2017					30,690 ⁽⁵⁾	2,613,254
	3/15/2018	—	148,190	83.57	3/14/2028	46,340 ⁽³⁾	3,945,851
	3/15/2018					45,320 ⁽⁵⁾	3,858,998
Daniel Spiegelman	5/29/2012	2,604	—	39.06	5/28/2022		
	5/15/2013	42,922	—	67.81	5/14/2023		
	6/4/2014	21,700	—	63.10	6/3/2024		
	3/3/2015	22,406	1,494	108.36	3/2/2025	2,625 ⁽³⁾	223,519
	3/15/2016	25,636	11,654	83.43	3/14/2026	8,320 ⁽³⁾	708,448
	3/15/2016					4,083 ⁽⁵⁾	347,667
	3/22/2017	17,272	22,208	87.42	3/21/2027	9,150 ⁽³⁾	779,123
	3/22/2017					8,411 ⁽⁵⁾	716,197
	3/15/2018	—	39,900	83.57	3/14/2028	12,480 ⁽³⁾	1,062,672
	3/15/2018					12,205 ⁽⁵⁾	1,039,256
Jeff Ajer	5/15/2013	49,000	—	67.81	5/14/2023		
	6/4/2014	30,700	—	63.10	6/3/2024		
	3/3/2015	22,406	1,494	108.36	3/2/2025	2,625 ⁽³⁾	223,519
	3/15/2016	24,942	11,338	83.43	3/14/2026	8,095 ⁽³⁾	689,289
	3/15/2016					3,974 ⁽⁵⁾	338,386
	3/22/2017	17,272	22,208	87.42	3/21/2027	9,150 ⁽³⁾	779,123
	3/22/2017					8,411 ⁽⁵⁾	716,197
	3/15/2018	—	41,040	83.57	3/14/2028	12,840 ⁽³⁾	1,093,326
	3/15/2018					12,557 ⁽⁵⁾	1,069,229

Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable ⁽¹⁾ (#)	Number of Securities Underlying Unexercised Options Unexercisable ⁽¹⁾ (#)	Option Exercise Price (\$) ⁽²⁾	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 (\$) ⁽⁴⁾
Robert A. Baffi, Ph.D.	5/12/2010	40,000	—	21.51	5/11/2020		
	5/12/2011	80,000	—	26.49	5/11/2021		
	5/8/2012	40,000	—	37.46	5/7/2022		
	5/15/2013	70,000	—	67.81	5/14/2023		
	6/4/2014	47,200	—	63.10	6/3/2024		
	3/3/2015	22,406	1,494	108.36	3/2/2025	2,625 ⁽³⁾	223,519
	3/15/2016	24,942	11,338	83.43	3/14/2026	8,095 ⁽³⁾	689,289
	3/15/2016					3,974 ⁽⁵⁾	338,386
	3/22/2017	16,808	21,612	87.42	3/21/2027	8,903 ⁽³⁾	758,090
	3/22/2017					8,184 ⁽⁵⁾	696,868
	3/15/2018	—	38,760	83.57	3/14/2028	12,120 ⁽³⁾	1,032,018
	3/15/2018					11,853 ⁽⁵⁾	1,009,283
Henry J. Fuchs, M.D.	5/15/2013	91,000	—	67.81	5/14/2023		
	6/4/2014	58,400	—	63.10	6/3/2024		
	3/3/2015	28,593	1,907	108.36	3/2/2025	3,350 ⁽³⁾	285,253
	3/15/2016	30,483	13,857	83.43	3/14/2026	9,895 ⁽³⁾	842,559
	3/15/2016					4,855 ⁽⁵⁾	413,403
	3/22/2017	28,012	36,018	87.42	3/21/2027	14,843 ⁽³⁾	1,263,881
	3/22/2017					13,643 ⁽⁵⁾	1,161,701
	3/15/2018	—	51,300	83.57	3/14/2028	16,040 ⁽³⁾	1,365,806
	3/15/2018					15,687 ⁽⁵⁾	1,335,748

⁽¹⁾ All stock options vest over a four-year period. Stock options granted before June 15, 2015 vest at the rate of 6/48ths on the sixth-month anniversary of the grant date and 1/48th each month during the optionee's employment. Stock options granted on or after June 15, 2015 vest at the rate of 12/48ths on the twelve-month anniversary of the grant date and 1/48th each month thereafter during the optionee's employment. Subject to certain exceptions, the maximum term of stock options granted under the Amended and Restated 2006 Share Incentive Plan (2006 Plan) and the 2017 Plan is 10 years. For a description of acceleration and extended vesting terms applicable to certain of the awards, please see the "Compensation Discussion and Analysis—Post-Employment Obligations" and "Executive Compensation Tables—Potential Payments upon Termination or Change in Control" sections of this Proxy Statement.

⁽²⁾ Represents the closing market price of our common stock as reported on the Nasdaq Global Select Market on the grant date.

⁽³⁾ Represents service-based RSUs. All service-based RSUs vest over a four-year period, vesting at the rate of one fourth on the anniversary of the grant date and one fourth each anniversary of the grant date thereafter during the recipient's continued service. For a description of acceleration and extended vesting terms applicable to certain of the awards, please see the "Compensation Discussion and Analysis—Post-Employment Obligations" and "Executive Compensation Tables—Potential Payments upon Termination or Change in Control" sections of this Proxy Statement.

⁽⁴⁾ The value of RSUs shown in the table that have not yet vested was calculated using \$85.15, the closing price of our common stock on December 31, 2018.

⁽⁵⁾ Represents performance-based RSUs. The numbers of performance-based RSUs reflected in this table are the actual numbers of RSUs earned by the NEOs based on achievement of performance criteria as of the respective measurement dates for each performance award. In early 2017, 2018 and 2019, based on the Company's actual performance against the revenue target as of the measurement date (December 31st of the prior year, which is also the year of grant), the Company applied a multiplier of 103%, 103% and 98%, respectively, to the target number of performance-based RSUs granted in 2016, 2017, and 2018, respectively, to determine the number of performance-based RSUs actually earned. The performance-based RSUs vest over a three-year period, vesting at the rate of one third on the anniversary of the grant date and one third each anniversary of the grant date thereafter during the recipient's continued service with the Company. For a description of acceleration and extended vesting terms applicable to certain of the awards, please see the "Compensation Discussion and Analysis—Post-Employment Obligations" and "Executive Compensation Tables—Potential Payments upon Termination or Change in Control" sections of this Proxy Statement.

Options Exercised and Stock Vested

The following table sets forth the number and value of stock options exercised and share awards that vested in fiscal year 2018 for each of the NEOs.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise(#)	Value Realized on Exercise (\$) ⁽¹⁾	Number of Shares Acquired on Vesting(#)	Value Realized on Vesting (\$) ⁽²⁾
Jean-Jacques Bienaimé	225,500	11,728,727	86,492	7,213,883
Daniel Spiegelman	—	—	23,531	1,962,765
Jeff Ajer	9,000	261,459	22,709	1,888,970
Robert A. Baffi, Ph.D.	6,949	587,958	22,812	1,900,563
Henry J. Fuchs, M.D.	56,000	3,017,405	31,298	2,601,093

⁽¹⁾ The value realized upon exercise of stock options reflects the price at which shares acquired upon exercise of the stock options were sold or valued for income tax purposes, net of the exercise price for acquiring the shares.

⁽²⁾ The value realized on vesting of RSUs was calculated as of the product of the closing price of a share of our common stock on the vesting date, multiplied by the number of shares vested.

Pension Benefits

There is no retirement pension plan provided for the NEOs.

Nonqualified Deferred Compensation Plan

Our Nonqualified Deferred Compensation Plan allows members of management, other highly-compensated employees and members of the Board to make voluntary irrevocable deferrals of the compensation that would otherwise be paid by us to specified future dates, employment termination, hardship events, disability, retirement or death. Directors may elect to defer all or a portion of their fees and RSU awards otherwise payable to them. Non-Director participants are permitted to defer up to 100% of RSU awards and up to 50% of salary and annual cash incentive awards, in each case subject to limitations to allow us to make necessary withholding payments. Plan participants' deferred compensation is 100% vested under the Nonqualified Deferred Compensation Plan. We may make additional direct contributions to the Nonqualified Deferred Compensation Plan for the benefit of the participants, but any such contributions must be approved by the Board. Our contributions, if any, will become 100% vested after three years of service with us (or such other time as we designate at the time of the contribution), or upon a change in control of the Company, or the individual's death or disability. Participants have an unsecured contractual commitment by us to pay the amounts that become due under the Nonqualified Deferred Compensation Plan. Deferred compensation may be held in trust and is deemed invested based on participant direction as allowed by the Nonqualified Deferred Compensation Plan. Participants' accounts are credited or debited with the increase or decrease in the realizable net asset value of the designated deemed investments in accordance with the ratio the portion of the account of each participant that is deemed to be invested within that investment option bears to the aggregate of all amounts deemed to be invested within that investment option. Any funds held in a trust will be our sole property, subject to any claims of general creditors in the event of bankruptcy, and plan participants will have no vested interest with respect to such trust fund.

The following table shows for the fiscal year ended December 31, 2018, certain information regarding non-qualified deferred compensation benefits for the NEOs who participate in the Nonqualified Deferred Compensation Plan.

Name	Executive Contributions in 2018 (\$)	Aggregate Earnings (Loss) in 2018 (\$)	Aggregate Withdrawals and Distributions (\$)	Aggregate Balance at December 31, 2018 (\$) ⁽¹⁾
Jean-Jacques Bienaimé	—	(17,280)	(728,240) ⁽²⁾	681,200
Daniel Spiegelman	282,482 ⁽³⁾	(95,578)	—	470,689
Robert A. Baffi, Ph.D.	23,171 ⁽⁴⁾	(23,132)	(1,118,404) ⁽⁵⁾	480,513

- (1) To the extent amounts reflect contributions of salary, bonus, equity awards, or other remuneration, the amounts are reported as compensation for the NEO in the "Summary Compensation Table" in this Proxy Statement and/or were previously reported as compensation for the NEO in the Company's Summary Compensation Tables for previous years.
- (2) Reflects the value of 8,000 shares of common stock distributed to Mr. Bienaimé on January 1, 2018 (based on per share market price of \$91.03 on the distribution date).
- (3) Amount includes (a) cash compensation of \$240,690 contributed by Mr. Spiegelman, which is reflected in the amount of his compensation for 2018 as reported in the "Summary Compensation Table" in this Proxy Statement, and (b) recontributed dividend and interest of \$41,792 earned during 2018.
- (4) Amount includes recontributed dividend and interest of \$23,171 earned during 2018.
- (5) Reflects the value of (a) 10,500 shares of common stock distributed to Mr. Baffi on June 1, 2018 (based on per share market price of \$91.92 on the distribution date), and (b) various investment fund withdrawals on January 2, 2018 and September 4, 2018 at various prices.

Potential Payments Upon Termination or Change in Control

We entered into an employment agreement with Mr. Bienaimé at the time of his hire and with each of our other executive officers, including the NEOs, in April 2007 or upon their respective date of hire. In January 2009, to comply with the changes to Section 409A, we amended and restated the employment agreements with each of our executive officers, including Mr. Bienaimé. We further amended the employment agreements in December 2012 to ensure that the timing of severance payments thereunder comply with Section 409A. In June 2015, we made certain changes to severance benefit provisions in the employment agreements for our NEOs (other than the Chief Executive Officer) to meet current market and peer company practices as well as to clarify certain terms. In December 2016, we amended and restated the employment agreement for our Chief Executive Officer primarily to adjust his benefits in connection with a change in control, including eliminating income tax "gross-up" payments in connection with a change in control as provided for in his prior agreement and make his agreement generally more consistent with the employment agreements for the Company's other executives. The following discussion is based on the employment and equity award agreements with our NEOs. The amount and type of compensation payable to each NEO upon termination of employment under various circumstances and upon a change in control are described below.

Payments on Termination

The amount and type of compensation payable to each NEO upon termination of employment under various circumstances are described below. There are three general categories of terminations, which are:

- voluntary termination of employment by the NEO for reasons not constituting constructive termination, which we refer to as voluntary termination; retirement of the NEO; and termination of the NEO's employment by us for cause (as such term is defined in the employment agreements and in our stock plans), which we refer to as termination for cause;
- termination of the NEO's employment by us for reasons not constituting cause, such as due to a companywide or departmental reorganization, or resignation by the NEO for a good reason specified in the NEO's employment agreement (*e.g.*, a change in work location of more than a specified distance from the previous location) constituting constructive termination, which we refer to as involuntary termination without cause; and
- termination of the NEO's employment or resignation by the NEO for a good reason in connection with a change in control that occurs within 12 months of such change in control, which we refer to as termination in connection with a change in control.

Compensation upon Voluntary Termination, Retirement or Termination for Cause

Except as described above under the "Compensation Discussion and Analysis—Post-Employment Obligations" section of this Proxy Statement, awards held by our NEOs will not be subject to accelerated vesting or otherwise enhanced in the event of voluntary termination, retirement, or termination for cause. A termination of employment due to voluntary termination, retirement, or termination for cause does not entitle the NEOs to any payments or benefits other than the accrued salary and vacation pay and vested benefits described above. Such compensation and benefits are available to salaried employees generally, except that any amounts payable to the NEOs upon termination under our Nonqualified Deferred Compensation Plan would not be applicable to certain employees as only employees with the title of chief executive officer, vice president, and executive Director are entitled to participate in our Nonqualified Deferred Compensation Plan.



Compensation upon Involuntary Termination without Cause

Each of the NEOs' employment agreements includes specific benefits upon an involuntary termination without cause. For each of the NEOs, other than Mr. Bienaimé, these benefits consist of:

- 150% of the NEO's current annual base salary and target annual cash incentive for the year of termination;
- the NEO's target annual cash incentive for the year of termination, pro-rated for the year in which termination occurs;
- an additional 12 months of vesting of the NEO's unvested time-based vesting equity awards and target amounts of performance-based equity awards that have not vested;
- paid premiums under COBRA for 18 months; and
- outplacement services.

Mr. Bienaimé's benefits upon an involuntary termination without cause consist of:

- 200% of his current annual base salary and target annual cash incentive for the year of termination;
- his target annual cash incentive for the year of termination, pro-rated for the year in which termination occurs;
- 100% vesting of all his unvested stock options;
- paid premiums under COBRA for 18 months; and
- reimbursement of outplacement services in an amount not to exceed \$18,000.

Each NEO is eligible to receive the respective termination benefits described above within 45 days of his termination date, provided that he executes a standard form severance and release agreement and allows such release to become fully effective. The cash portions of the termination benefits are payable to the NEO in one lump sum on the 60th day after termination. In addition, if an NEO becomes disabled while employed by us, and if (a) the NEO is eligible to receive benefits under our Long-Term Disability Plan, then we will pay the NEO additional compensation so that the total received by the NEO (after taking into consideration the amounts payable to the NEO under the Long-Term Disability Plan) equals the cash portions of the termination benefits as described above; or (b) the NEO is not eligible to receive benefits under our Long-Term Disability Plan, then the NEO will be entitled to the full termination benefits described above.

Compensation upon Termination of Employment in Connection with Change in Control

Each of the NEOs who is involuntarily terminated in connection with a change in control is entitled to certain benefits. For each of the NEOs other than Mr. Bienaimé, these benefits consist of:

- 200% of the NEO's current annual base salary and target annual cash incentive for the year of termination;
- the NEO's target annual cash incentive for the year of termination, pro-rated for the year in which termination occurs;
- 100% vesting of all the NEO's unvested time-based vesting equity awards and target amounts of performance-based equity awards that have not vested;
- paid premiums under COBRA for 24 months; and
- outplacement services.

Mr. Bienaimé's benefits for termination in connection with a change in control consist of:

- 300% of his current annual base salary and target annual cash incentive for the year of termination;
- his target annual cash incentive for the year of termination, pro-rated for the year in which termination occurs;
- 100% vesting of all his unvested time-based vesting equity awards and target amounts of performance-based equity awards that have not vested;
- paid premiums under COBRA for 36 months; and
- reimbursement of outplacement services in an amount not to exceed \$18,000.

The payment terms, requirement to execute a release, and provision of termination benefits in the event an NEO becomes disabled as described above under "*Compensation upon Involuntary Termination without Cause*" apply equally to termination benefits for NEOs in connection with a change in control. If termination compensation payable to an NEO as the result of a change in control as described above would result in a parachute payment under Section 280G of the Code, which would be subject to an excise tax under Section 4999 of the Code, or interest or penalties are incurred with respect to such excise tax, we will determine, before any such termination compensation is paid to the NEO, which of the following two alternative forms of payment would result in his receipt, on an after-tax basis, of the greater amount of the termination compensation notwithstanding that all or some portion of the termination compensation may be subject to the excise tax: (i) payment in full of the entire amount of the termination compensation, or (ii) payment of only a part of the termination compensation so that the NEO receives the largest payment possible without the imposition of the excise tax.

Change in Control - Continued Employment

Upon a change in control without termination of employment, each of the NEOs is entitled to 100% vesting of all the NEO's unvested time-based vesting equity awards and target amounts of performance-based equity awards that have not vested.

Estimated Potential Payments on Termination or Change in Control

The table below sets forth the estimated current value of payments and benefits to each of the NEOs upon an involuntary termination or a change in control of the Company as described above. The amounts shown assume that the triggering events occurred on December 31, 2018 and do not include (i) benefits earned during the term of the NEOs employment that are available to all salaried employees, such as accrued vacation; (ii) benefits paid by insurance providers under life and disability policies; (iii) benefits previously accrued under the Nonqualified Deferred Compensation Plan; and (iv) benefits described above under the "Compensation Discussion and Analysis—Post-Employment Obligations. The actual amounts of payments and benefits that would be provided can only be determined at the time of the NEO's separation from the Company. Per SEC rules, the value of accelerated stock options shown in the table below is the aggregate spread between \$85.15, the closing price of our common stock on December 31, 2018, and the exercise prices of the accelerated stock options, if less than \$85.15. The numbers of performance-based RSUs for such awards granted in 2016 and 2017 that are used in the calculation of market values of stock awards in the table below are the numbers of RSUs actually earned by the NEOs. The numbers of performance-based RSUs for such awards granted in 2018 that are used in the calculation of market values of stock awards in the table below are the target numbers of RSUs granted to each NEO (because the numbers of RSUs actually earned for such awards were not determined until February 2019, which was after December 31, 2018, the measurement date for the table below).

Executive Benefits and Payments Upon Termination or Change in Control	Involuntary Termination Without Cause	Change in Control-Continued Employment	Change in Control-Terminated
Jean-Jacques Bienaimé⁽¹⁾:			
Cash Severance	\$4,872,000	\$ —	\$ 7,308,000
Cash Incentive	1,276,000	—	1,276,000
Stock award vesting acceleration	307,268 ⁽²⁾	18,351,149 ⁽³⁾	18,351,149 ⁽³⁾
Benefits and Perquisites:			
COBRA Premiums	25,283		910,200
Outplacement Services	18,000 ⁽⁴⁾		18,000 ⁽⁴⁾
Total	6,498,551	18,351,149	27,863,349
Daniel Spiegelman:			
Cash Severance	\$1,440,000		\$ 1,920,000
Cash Incentive	360,000		360,000
Stock award vesting acceleration	2,206,596 ⁽⁵⁾	4,983,384 ⁽⁶⁾	4,983,384 ⁽⁶⁾
Benefits and Perquisites:			
COBRA Premiums	36,878		49,170
Total	\$4,043,474	\$ 4,983,384	\$ 7,312,554
Jeff Ajer:			
Cash Severance	\$1,344,000		\$ 1,792,000
Cash Incentive	336,000		336,000
Stock award vesting acceleration	2,205,928 ⁽⁷⁾	4,935,170 ⁽⁸⁾	4,935,170 ⁽⁸⁾
Benefits and Perquisites:			
COBRA Premiums	37,277		49,702
Total	\$3,923,205	\$ 4,935,170	\$ 7,112,872



Executive Benefits and Payments Upon Termination or Change in Control	Involuntary Termination Without Cause	Change in Control-Continued Employment	Change in Control-Terminated
Robert A. Baffi, Ph.D.:			
Cash Severance	\$1,344,000		\$ 1,792,000
Cash Incentive	336,000		336,000
Stock award vesting acceleration	2,152,069 ⁽⁹⁾	4,850,930 ⁽¹⁰⁾	4,850,930 ⁽¹⁰⁾
Benefits and Perquisites:			
COBRA Premiums	33,498		44,664
Total	\$3,865,567	\$ 4,850,930	\$ 7,023,594
Henry J. Fuchs, M.D.:			
Cash Severance	\$1,670,625		\$ 2,227,500
Cash Incentive	438,750		438,750
Stock award vesting acceleration	2,973,128 ⁽¹¹⁾	6,803,298 ⁽¹²⁾	6,803,298 ⁽¹²⁾
Benefits and Perquisites:			
COBRA Premiums	17,152		22,870
Total	\$5,099,655	\$ 6,803,298	\$ 9,492,418

⁽¹⁾ No incremental benefits are due should the death of Mr. Bienaimé occur, except for amounts due for services previously rendered and those due under the life insurance policies, as discussed above. Additionally, as is the case for all our employees as described above under the "Compensation Discussion and Analysis—Post-Employment Obligations" section of this Proxy Statement, if Mr. Bienaimé dies while employed by us, all his unvested equity awards with time-based vesting will vest in full and all his unvested equity awards with performance-based vesting will vest in full as if the target values had been achieved, and such awards will remain exercisable for one year after death.

⁽²⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 190,706 stock options that would vest upon termination. Excludes 86,686 stock options with exercise prices greater than \$85.15.

⁽³⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 190,706 stock options, 119,985 service-based RSUs and 91,922 performance-based RSUs that would vest upon termination. Excludes 86,686 stock options with exercise prices greater than \$85.15.

⁽⁴⁾ Pursuant to Mr. Bienaimé's employment agreement, the Company will reimburse Mr. Bienaimé for outplacement services in an amount not to exceed \$18,000 in the event of his involuntary termination without cause or in connection with a change in control.

⁽⁵⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 26,779 stock options, 12,955 service-based RSUs and 12,447 performance-based RSUs that would vest upon termination. Excludes 11,364 stock options with exercise prices greater than \$85.15.

⁽⁶⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 51,554 stock options, 32,575 service-based RSUs and 24,974 performance-based RSUs that would vest upon termination. Excludes 23,702 stock options with exercise prices greater than \$85.15.

⁽⁷⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 27,025 stock options, 12,932 service-based RSUs and 12,458 performance-based RSUs that would vest upon termination. Excludes 11,364 stock options with exercise prices greater than \$85.15.

⁽⁸⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 52,378 stock options, 31,743 service-based RSUs and 25,225 performance-based RSUs that would vest upon termination. Excludes 23,702 stock options with exercise prices greater than \$85.15.

⁽⁹⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 26,027 stock options, 12,670 service-based RSUs and 12,106 performance-based RSUs that would vest upon termination. Excludes 11,099 stock options with exercise prices greater than \$85.15.

⁽¹⁰⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 50,098 stock options, 31,743 service-based RSUs and 24,278 performance-based RSUs that would vest upon termination. Excludes 23,106 stock options with exercise prices greater than \$85.15.

⁽¹¹⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 33,528 stock options, 17,255 service-based RSUs and 17,021 performance-based RSUs that would vest upon termination. Excludes 17,915 stock options with exercise prices greater than \$85.15.

⁽¹²⁾ Based on the closing price of our common stock on December 31, 2018, \$85.15. Relates to 65,157 stock options, 44,128 service-based RSUs and 34,538 performance-based RSUs that would vest upon termination. Excludes 37,925 stock options with exercise prices greater than \$85.15.

Stock Ownership Information

Security Ownership of Certain Beneficial Owners and Management

The table below sets forth certain information regarding the ownership of shares of our common stock as of March 15, 2019 (except as otherwise noted) by: (i) each current Director and each nominee for Director; (ii) each of the NEOs; (iii) all of our executive officers and Directors as a group; and (iv) all those known by us to be beneficial owners of more than five percent of our common stock. Except as otherwise noted, the entities and individuals in this table have sole dispositive and voting power with respect to all the shares of our common stock beneficially owned by them, subject to community property laws, where applicable. The information with respect to each entity and individual specified was supplied or confirmed by such entity or individual or based upon statements filed with the SEC. Except as otherwise indicated, the mailing address for each stockholder in the table below is c/o BioMarin Pharmaceutical Inc., 105 Digital Drive, Novato, CA 94949.

Name of Beneficial Owner	Number of Shares Beneficially Owned ⁽¹⁾	Number of Shares Subject to Options and Restricted Stock Units ⁽²⁾	Total Number of Shares Beneficially Owned ⁽³⁾	Percentage of Total Shares Outstanding ⁽⁴⁾
Capital Research Global Investors ⁽⁵⁾	18,304,163	—	18,304,163	10.26%
The Vanguard Group ⁽⁶⁾	15,541,904	—	15,541,904	8.71%
PRIMECAP Management Company ⁽⁷⁾	14,200,273	—	14,200,273	7.96%
BlackRock, Inc. ⁽⁸⁾	13,588,187	—	13,588,187	7.61%
Prudential Financial, Inc. ⁽⁹⁾	11,712,120	—	11,712,120	6.56%
Jennison Associates LLC ⁽¹⁰⁾	11,600,460	—	11,600,460	6.50%
AMCAP Fund ⁽¹¹⁾	10,177,000	—	10,177,000	5.70%
Jean-Jacques Bienaimé	337,672 ⁽¹²⁾	1,238,017	1,575,689	*
Daniel Spiegelman	16,092	158,492	174,584	*
Jeff Ajer	13,995	170,496	184,491	*
Robert A. Baffi, Ph.D.	120,884 ⁽¹³⁾	366,632	487,516	*
Henry J. Fuchs, M.D.	77,138	273,087	350,225	*
Willard Dere, M.D.	3,810	11,496	15,306	*
Michael Grey	29,810	—	29,810	*
Elaine J. Heron, Ph.D.	37,385	43,750	81,135	*
Robert J. Hombach	3,180	51,250	54,430	*
V. Bryan Lawlis, Ph.D.	14,860	68,400	83,260	*
Alan J. Lewis, Ph.D.	16,860	36,250	53,110	*
Richard A. Meier	77,310	51,250	128,560	*
David E.I. Pyott, M.D. (Hon.)	4,910	13,230	18,140	*
Dennis J. Slamon, M.D., Ph.D.	9,885	24,300	34,185	*
All current executive officers and Directors as a group (16 persons)	805,748	2,767,958	3,573,706	1.97%

* Represents less than 1% of our common stock outstanding on March 15, 2019.

⁽¹⁾ Represents the number of shares of our common stock owned directly or indirectly by each entity and person, and excludes shares underlying options and RSUs held by our Directors and officers, which are reported in the column titled "Number of Shares Subject To Options and Restricted Stock Units."



- ⁽²⁾ Represents shares of our common stock subject to stock options that are or will become exercisable and RSUs that will vest within 60 days of March 15, 2019.
- ⁽³⁾ Equals the sum of the number of shares under the table columns titled "Number of Shares Beneficially Owned" and "Number of Shares Subject To Options and Restricted Stock Units."
- ⁽⁴⁾ The calculation of percentages is based upon 178,468,354 shares of our common stock outstanding on March 15, 2019, plus for each of the individuals listed above, the number of shares subject to stock options and RSUs reflected in the column under the heading "Number of Shares Subject To Options and Restricted Stock Units."
- ⁽⁵⁾ This information is as of December 31, 2018 and is based solely on information contained in the Schedule 13G/A filed with the SEC on February 14, 2019 by Capital Research Global Investors (CRGI), a division of Capital Research and Management Company (CRMC). CRGI, as a registered investment adviser under Section 203 of the Investment Advisers Act of 1940 (15 U.S.C. 80b-3) or under the laws of any state, may be deemed to beneficially own the indicated shares and has sole dispositive and voting power over the indicated shares. One or more clients of CRGI have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the indicated shares. CRGI held more than five percent of our outstanding common stock as of December 31, 2018 on behalf of the AMCAP Fund. The address for CRGI is 333 South Hope Street, Los Angeles, CA 90071.
- ⁽⁶⁾ This information is as of December 31, 2018 and is based solely on information contained in the Schedule 13G/A filed with the SEC on February 11, 2019 by The Vanguard Group, Inc. (Vanguard). Vanguard, as a registered investment adviser under Section 203 of the Investment Advisers Act of 1940 (15 U.S.C. 80b-3) or under the laws of any state, may be deemed to beneficially own the indicated shares and has sole dispositive power over 15,374,796 shares, shared dispositive power over 167,108 shares, sole voting power over 135,313 shares and shared voting power over 36,570 shares. Vanguard reported its beneficial ownership on behalf of itself and the following: Vanguard Fiduciary Trust Company and Vanguard Investments Australia, Ltd., each a wholly owned subsidiary of Vanguard. The address for Vanguard is 100 Vanguard Blvd., Malvern, PA 19355.
- ⁽⁷⁾ This information is as of December 31, 2018 and is based solely on information contained in the Schedule 13G/A filed with the SEC on February 8, 2019 by PRIMECAP Management Company (PRIMECAP). PRIMECAP, as a registered investment adviser under Section 203 of the Investment Advisers Act of 1940 (15 U.S.C. 80b-3) or under the laws of any state, may be deemed to beneficially own the indicated shares and has sole dispositive power over 14,200,273 shares and sole voting power over 4,017,489 shares. The address for PRIMECAP is 177 E. Colorado Blvd., 11th Floor, Pasadena, CA 91105.
- ⁽⁸⁾ This information is as of December 31, 2018 and is based solely on information contained in the Schedule 13G/A filed with the SEC on February 11, 2019 by BlackRock, Inc. (BlackRock). BlackRock, as a parent holding company or control person, may be deemed to beneficially own the indicated shares and has sole dispositive power over 13,588,187 shares and sole voting power over 12,183,044 shares. BlackRock reported its beneficial ownership on behalf of itself and the following: BlackRock (Luxembourg) S.A., BlackRock (Netherlands) B.V., BlackRock (Singapore) Limited, BlackRock Advisors (UK) Limited, BlackRock Advisors, LLC, BlackRock Asset Management Canada Limited, BlackRock Asset Management Deutschland AG, BlackRock Asset Management Ireland Limited, BlackRock Asset Management North Asia Limited, BlackRock Asset Management Schweiz AG, BlackRock Financial Management, Inc., BlackRock Fund Advisors, BlackRock Fund Managers Ltd, BlackRock Institutional Trust Company, N.A, BlackRock International Limited, BlackRock Investment Management (Australia) Limited, BlackRock Investment Management (UK) Ltd, BlackRock Investment Management, LLC, BlackRock Japan Co., Ltd and BlackRock Life Limited. The address for BlackRock is 55 East 52nd St., New York, NY 10055.
- ⁽⁹⁾ This information is as of December 31, 2018 and is based solely on information contained in the Schedule 13G/A filed with the SEC on January 31, 2019 by Prudential Financial, Inc. (Prudential). Prudential, as a parent holding company, may be deemed to beneficially own the indicated shares and has sole dispositive power over 305,637 shares, shared dispositive power over 11,406,483 shares, sole voting power over 305,637 shares and shared voting power over 6,283,128 shares. Prudential reported its beneficial ownership on behalf of itself and the following: The Prudential Insurance Company of America, Prudential Retirement Insurance and Annuity Company, Jennison Associates LLC, PGIM, Inc. and Quantitative Management Associates LLC, each an indirect subsidiary of Prudential. The aggregate number of shares reported as beneficially owned by Prudential includes the 11,600,460 shares beneficially owned by Jennison Associates LLC and discussed in footnote (10) below. The address for Prudential is 751 Broad St., Newark, NJ 07102.
- ⁽¹⁰⁾ This information is as of December 31, 2018 and is based solely on information contained in the Schedule 13G/A filed with the SEC on January 31, 2019 by Jennison Associates LLC (Jennison). Jennison, as a registered investment adviser under Section 203 of the Investment Advisers Act of 1940 (15 U.S.C. 80b-3) or under the laws of any state, may be deemed to beneficially own the indicated shares and has sole voting power over 6,477,105 shares and shared dispositive power over the indicated shares. The address for Jennison is 466 Lexington Ave., New York, NY 10017. Prudential indirectly owns 100% of the equity interests of Jennison. As a result, Prudential may be deemed to have the power to exercise or to direct the exercise of such voting and/or dispositive power that Jennison may have with respect to the shares. Jennison does not file jointly with Prudential; as such, shares reported on Jennison's Schedule 13G/A may be included in the shares reported on the Schedule 13G/A filed by Prudential.
- ⁽¹¹⁾ This information is as of December 31, 2018 and is based solely on information contained in the Schedule 13G filed with the SEC on February 14, 2019 by AMCAP Fund (AMCAP). AMCAP, as a registered investment company under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8) or under the laws of any state, may be deemed to beneficially own the indicated shares but does not have sole dispositive power, shared dispositive power, sole voting power nor shared voting power over any shares. AMCAP is advised by Capital Research and Management Company ("CRMC"). CRMC manages equity assets for various investment companies through three divisions, Capital Research Global Investors, Capital World Investors, and Capital International Investors. These divisions generally function separately from each other with respect to investment research activities and they make investment decisions and proxy voting decisions for the investment companies on a separate basis. The address for AMCAP is 333 South Hope Street, Los Angeles, CA 90071.
- ⁽¹²⁾ Includes 181,341 shares held in a trust of which Mr. Bienaimé is a trustee.
- ⁽¹³⁾ Includes 71,882 shares held in a trust of which Dr. Baffi is a trustee.

Director and Officer Stock Ownership Guidelines

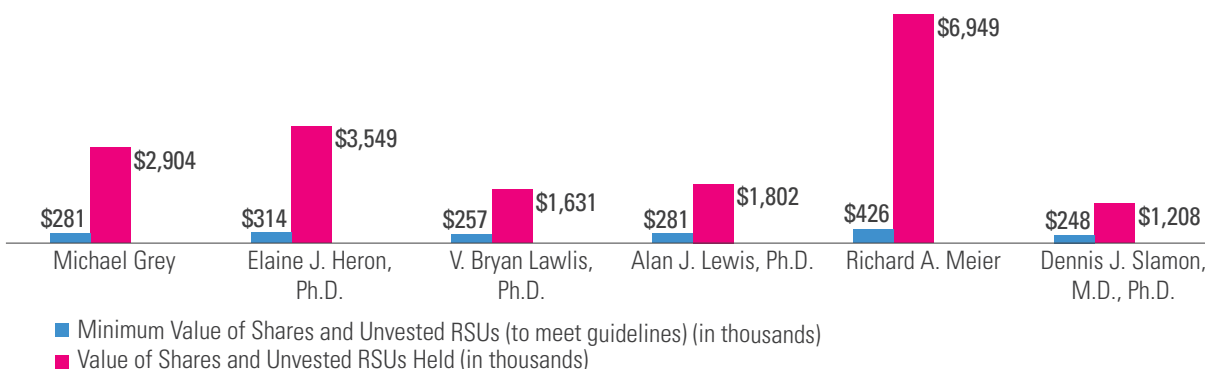
The Compensation Committee has approved stock ownership guidelines for our Directors, Chief Executive Officer and Executive or Senior Vice Presidents, which have been approved by the Board. Under these guidelines, executives are expected to use the shares of common stock obtained on the exercise of stock options or vesting of RSUs received to establish significant level of direct ownership in BioMarin. Newly appointed or elected Directors and newly appointed or hired officers have three years to comply with their specific stock ownership guidelines.

The following table summarizes the guidelines for our Directors and NEOs as of December 31, 2018:

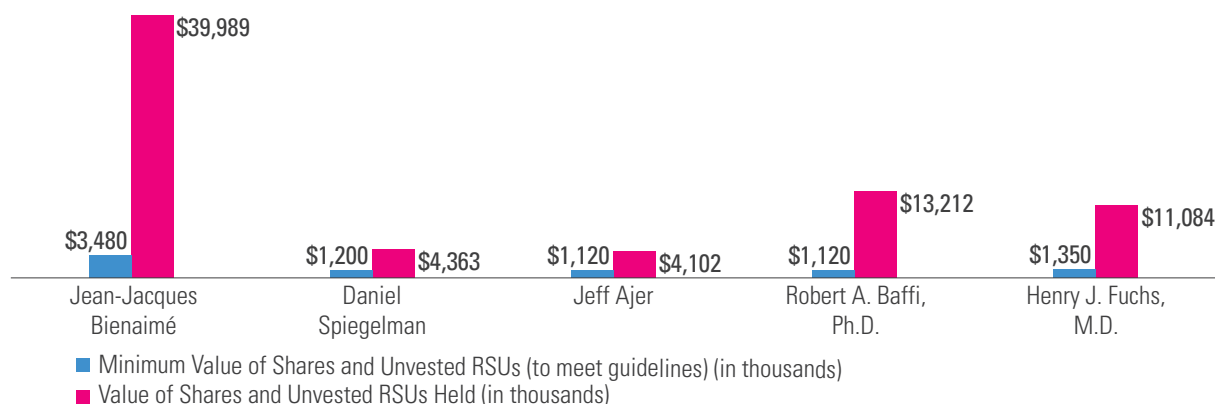
Name	Stock Ownership Guidelines
Independent Directors	Lesser of 10,000 shares and unvested RSUs or value of shares and unvested RSUs equal to 3 times cash retainer amount ("3x")
Chief Executive Officer	Value of shares and unvested RSUs equal to 3 times base salary ("3x")
NEOs (all are Executive Vice Presidents)	Value of shares and unvested RSUs equal to 2 times base salary ("2x")

The charts below summarize our Directors' and NEOs' compliance with the guidelines as of December 31, 2018. Drs. Dere and Pyott joined the Board in 2016, and Mr. Hombach joined the Board in 2017. Accordingly, they are not included in the chart below regarding compliance with Director stock ownership guidelines since newly elected or appointed Directors have three years from the time they join the Board to comply with their specific stock ownership guidelines.

INDEPENDENT DIRECTORS



NAMED EXECUTIVE OFFICERS





Compliance with our stock ownership guidelines is based on shares (including shares held in trusts for which the individual is the trustee and in a deferral account and issuable to such individual under our Nonqualified Deferred Compensation Plan) and unvested service-based RSUs and unvested earned performance-based RSUs held by a Director or officer as of December 31, 2018, but it does not include unvested, unearned performance-based RSUs or vested or unvested stock options. The value of stock owned is calculated using the closing price of our common stock on December 31, 2018, which was \$85.15. All of our Directors and NEOs were in compliance with our stock ownership guidelines as of December 31, 2018.

The Compensation Committee believes these stock ownership guidelines are an important tool in aligning the interests of our executives with the long-term interests of our stockholders. Although the guidelines are not mandatory, the Compensation Committee will consider compliance with the guidelines in setting an officer's compensation and the CGN Committee will consider compliance with the guidelines when making decisions on nominating Directors for re-election. See the "*Compensation Discussion and Analysis*" section of this Proxy Statement for more information regarding these guidelines.

Anti-Hedging and Anti-Pledging Policy

The Board has approved an anti-hedging and anti-pledging policy for our Directors and executive officers. Under this policy, all of our executive officers and Directors are prohibited from engaging in short-sales, transactions in put or call options, hedging transactions or other inherently speculative transactions in BioMarin stock or engaging in excessive margin and other pledging activities.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our Directors and executive officers and persons who beneficially own more than 10% of a registered class of our equity securities to file reports of ownership and reports of changes in the ownership with the SEC. Executive officers, Directors and greater than 10% stockholders are required by the SEC to furnish us with copies of all Section 16(a) filings they make.

To the best of our knowledge and based solely on a review of the copies of such reports furnished to us or written representation that no other reports were required, during the fiscal year ended December 31, 2018, all Section 16(a) filing requirements applicable to our officers, Directors and greater than ten percent beneficial owners were complied with, except for the following:

- one report, covering transactions effected on March 15, 2018 and relating to the exercise of stock options and the sale of the resulting share of stock pursuant to an approved Rule 10b5-1 trading plan, forfeiture of stock, and the annual equity grant of stock options and RSUs, which was filed one day late on behalf of Mr. Bienaimé due to an administrative oversight;
- one report, covering transactions effected on March 15, 2018 and relating to the forfeiture of stock and the annual equity grant of stock options and RSUs, which was filed one day late on behalf of Mr. Mueller due to an administrative oversight; and
- one report, covering transactions effected on June 5, 2018 and relating to the annual equity grant of RSUs, which was filed one week late on behalf of Mr. Hombach due to an administrative oversight.

Equity Compensation Plan Information

The following table provides certain information with respect to all of BioMarin's equity compensation plans as of December 31, 2018.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights ^(a)	Weighted average exercise price of outstanding options, warrants and rights ⁽¹⁾ \$(b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))(c)
Equity compensation plans approved by stockholders	10,612,554 ⁽²⁾	63.18	6,900,636 ⁽⁴⁾
Equity compensation plans not approved by stockholders	154,996 ⁽³⁾	57.06	—
Total	10,767,550	63.06	6,900,636

⁽¹⁾ The weighted average exercise price excludes RSU awards, which have no exercise price.

⁽²⁾ Amount includes stock options to purchase shares, service-based RSUs and performance-based RSUs issued under the 2017 Plan and the 2006 Plan, outstanding as of December 31, 2018. Amount does not include any shares of common stock issuable under our 2006 Employee Stock Purchase Plan (the ESPP). For descriptions of the 2017 Plan, the 2006 Plan, and the ESPP, see Note 15 to our financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019.

⁽³⁾ Amount includes stock options to purchase shares, service-based RSUs and performance-based RSUs issued under the BioMarin Pharmaceutical Inc. 2012 Inducement Plan (the 2012 Inducement Plan) and the BioMarin Pharmaceutical Inc. 2014 Inducement Plan (the 2014 Inducement Plan), which were not approved by the Company's stockholders in reliance on Nasdaq Marketplace Rule 5635(c)(4), outstanding as of December 31, 2018. The 2012 Inducement Plan expired on May 31, 2013 and the 2014 Inducement Plan expired on June 9, 2015. For descriptions of the 2012 Inducement Plan and the 2014 Inducement Plan, see Note 16 to our financial statements for the year ended December 31, 2015, included in the Company's Annual Report on Form 10-K for the year ended December 31, 2015, as filed with the SEC on February 29, 2016.

⁽⁴⁾ Amount reflects reduction of securities available for issuance pursuant to the 2017 Plan and the 2006 Plan, such that each service-based RSU and performance- and market-based RSU granted on or after May 12, 2010 but prior to May 15, 2013 reduces the shares available for issuance under the 2017 Plan and the 2006 Plan by 1.62 shares, and each service-based RSU and performance- and market-based RSU granted on or after May 15, 2013 reduces the shares available for issuance under the 2017 Plan and the 2006 Plan by 1.92 shares. Furthermore, amount excludes 364,815 shares available for future issuance under the ESPP, of which an estimated 107,730 shares will be subject to purchase during the current ESPP purchase period that commenced November 1, 2018 and ends April 30, 2019. The Company issues shares under the ESPP once every six months based on employee elections in the preceding six months. Pursuant to the terms of the ESPP, the number of shares to be issued and the price per share is not determined until immediately before the date of issuance.

Proposal No. Four: Approval of an Amendment to the 2017 Equity Incentive Plan

Purpose of Proposal

Our Board is requesting stockholder approval of an amendment (the 2017 Plan Amendment) to the BioMarin Pharmaceutical, Inc. 2017 Equity Incentive Plan (the 2017 Plan).

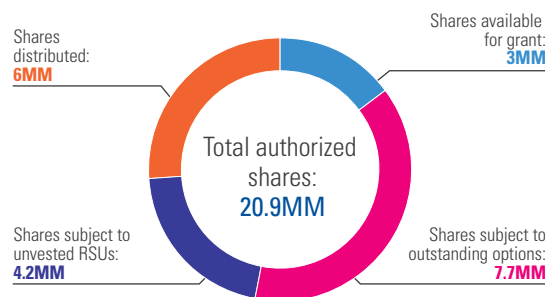
The only difference between the terms of the original 2017 Plan and the Amended 2017 Plan being presented for approval pursuant to this Proposal No. Four is to increase the aggregate number of shares of common stock authorized for issuance by 11,000,000, so that the total number of shares available for future awards under the 2017 Plan would increase from approximately 3,000,000 to 14,000,000, and the total number of shares reserved for issuance under the 2017 Plan would increase from 20,880,015 to 31,880,015.

Why the Board Believes You Should Vote **FOR** Proposal No. Four

- *Attracting and retaining talent.*
 - A talented, motivated and effective management team and workforce are essential to the Company's continued progress. Equity compensation has been an important component of total compensation at the Company for many years because it is effective at getting employees to think and act like owners.
 - Our equity grant practices are broad-based so that employees at all levels of the organization are personally invested in the Company's future.
 - 100% of employees receive equity grants as part of their new hire compensation packages.
 - 63% of employees received equity grants as part of our most recent annual company-wide equity grant in March 2019.
 - 82% of the shares underlying our most recent annual company-wide equity grant in March 2019 were allocated to employees other than our NEOs.
 - Between June 2017 (when the original 2017 Plan was adopted) and March 2019, our employee headcount increased by approximately 18%. We anticipate the need to continue to hire new employees and we will need to incentivize both new and existing employees to continue advancing the Company's goals that create long-term stockholder value. As our employee headcount and competition for top talent increases, so too will the demands on our equity compensation program.
- *Demonstrating commitment to sound equity compensation practices.*
 - We recognize that equity compensation awards dilute stockholder equity and must be used judiciously. Our equity compensation practices are designed to be in line with industry norms, and we believe our historical share usage has been responsible and mindful of stockholder interests.
 - Our average burn rate (total shares used for equity compensation awards each year divided by weighted average outstanding shares for the year) for the last three years (fiscal years 2016-2018) was only 1.4%. The following data, as disclosed in our Annual Reports on Form 10-K for fiscal years 2016-2018, was used for the burn rate calculation for the last three years:

Fiscal Year	Options Granted	Time-Based Full-Value Shares Granted	Performance-Based Full-Value Shares Earned	Weighted-Average Number of Common Shares Outstanding, Basic
2018	782,240	1,681,120	131,651	177,061,000
2017	801,170	1,382,900	134,219	174,427,000
2016	847,450	1,321,224	64,713	165,985,000
 - For the most recent three-year period in which peer company data is available (fiscal years 2015-2017), our average burn rate was only 1.3%, which is significantly lower than the median of our 2017 peer group and is most closely aligned with the 25th percentile of our 2017 peer group.

- *Limited shares remain available under the existing 2017 Plan and all our other equity compensation plans.*
- On March 15, 2019, we made our annual company-wide equity grant, in which we granted awards covering 2,311,278 shares, including 591,370 options and 1,719,908 performance- and time-based RSUs (equivalent to a reduction in the original 2017 Plan's reserve of 3,893,595 shares because each share of common stock subject to an RSU award counts as 1.92 shares against the reserve).
- As of March 31, 2019, a total of 179,033,104 shares of our common stock were outstanding. As shown in the graphic below, as of March 31, 2019, the remaining pool of shares available for grant under all our equity-based plans was only 3,025,399. As of March 31, 2019, the number of shares to be issued upon vesting, exercise, or settlement of outstanding awards under all of our equity-based plans was as follows:
 - 7,748,753 shares subject to outstanding options with a weighted average exercise price and term of \$66.45 and 5.7 years, respectively; and
 - 4,183,200 subject to outstanding and unvested performance- and time-based RSUs.



- Failure to approve the Amended 2017 Plan would likely create a barrier to hiring the best talent as our offers would not be as competitive without equity grants. If we were unable to grant equity awards, it would be necessary to replace components of compensation previously awarded in equity with cash, or with other instruments that may not necessarily align employee interests with those of stockholders as well as equity awards do. Additionally, replacing equity with cash will increase cash compensation expense and be a drain on cash flow that would be better utilized if reinvested in our core business. If the Amended 2017 Plan is approved, our ability to offer competitive compensation packages to attract new talent and retain our best performers will continue.
- *Providing regular opportunity for stockholders to review our equity grant practices.*
 - The last time we requested stockholders authorize additional shares for an equity incentive plan was two years ago, when we first adopted the 2017 Plan.
 - We estimate that by adopting the 2017 Plan Amendment, we will have a sufficient number of shares of common stock to cover awards granted under the Amended 2017 Plan for approximately two to three years, depending primarily on our growth and share price. At that time, we would ask that stockholders review our equity grant practices once more, and if they consider it appropriate, authorize additional shares for future equity grants.

Key Plan Features Representing Corporate Governance Best Practices

The Amended 2017 Plan, like the existing 2017 Equity Incentive Plan, includes provisions that are designed to protect our stockholders' interests and to reflect corporate governance best practices including:

- *Repricing is not allowed.* The Amended 2017 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 Amended 2017 Plan without prior stockholder approval.
- *Restrictions on payment of dividends and dividend equivalents.* The Amended 2017 Plan provides that dividends and dividend equivalents shall not be paid in respect of shares of common stock covered by a stock award until such shares of common stock vest.
- *No liberal share recycling.* The Amended 2017 Plan does not provide for "liberal" share recycling. For example, shares withheld on net exercises of options, shares withheld to meet tax obligations and shares repurchased by the Company using stock option proceeds do not return to the plan to be granted pursuant to future awards.
- *Awards subject to forfeiture/clawback.* Awards granted under the Amended 2017 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, 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. As noted on page 90 of this proxy under the section below entitled "Clawback Policy," the Company maintains a Policy for Recoupment of Incentive Compensation.
- *No liberal change in control definition.* The change in control definition in the Amended 2017 Plan is not a "liberal" definition (for example, it does not provide for a change in control upon merely the signing of a definitive change in control agreement). A change in control transaction must actually occur in order for the change in control provisions in the Amended 2017 Plan to be triggered.
- *No discounted stock options or stock appreciation rights.* All stock options and stock appreciation rights granted under the Amended 2017 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 Amended 2017 Plan will be 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 Amended 2017 Plan requires stockholder approval of any material revisions to the Amended 2017 Plan. In addition, certain other amendments to the Amended 2017 Plan require stockholder approval.
- *Limit on non-employee Director aggregate compensation.* The maximum aggregate value of all compensation granted or paid, as applicable, to any of our non-employee Directors for service on the Board with respect to any one calendar year (beginning with the 2018 calendar year) may not exceed \$1,000,000 in total value (calculating the value of any stock awards based on the grant date fair value of such stock awards for financial reporting purposes), or, with respect to the calendar year in which a non-employee Director is first appointed or elected to the Board, \$1,500,000.

Performance-Based Awards and Section 162(m)

One of the reasons that approval of the existing 2017 Equity Incentive Plan by our stockholders was originally required was so that certain awards granted thereunder could qualify as "performance-based compensation" within the meaning of Section 162(m). Section 162(m) disallows a deduction to any publicly held corporation and its affiliates for certain compensation paid to "covered employees" in a taxable year to the extent that compensation to a covered employee exceeds \$1,000,000. However, some kinds of compensation, including qualified "performance-based compensation," were previously not subject to this deduction limitation. Prior to the enactment of tax reform legislation, for compensation awarded under a plan to qualify as "performance-based compensation" under Section 162(m), among other things, the following terms were required to be disclosed to and approved by the stockholders before

the compensation was paid: (i) a description of the employees eligible to receive such awards; (ii) a per-person limit on the number of shares subject to stock options, stock appreciation rights and performance-based stock awards, and the amount of cash subject to performance-based cash awards, that may be granted to any employee under the plan in any year; and (iii) a description of the business criteria upon which the performance goals for performance-based awards may be granted (or become vested or exercisable).

In connection with the U.S. Tax Cuts and Jobs Act enacted in December 2017, the exemption from the deduction limit under Section 162(m) for “performance-based compensation” has been repealed, such that compensation paid to our covered employees in excess of \$1,000,000 will not be deductible unless it qualifies for transition relief applicable to certain arrangements in place as of November 2, 2017. Due to 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, it is currently uncertain which previously-granted items of compensation will and will not satisfy the exemption from Section 162(m). We are continuing to monitor guidance from the Internal Revenue Service, and for the moment are not changing any of the provisions of the original 2017 Equity Incentive Plan relating to Section 162(m) because it is currently unclear whether any such changes could affect the “grandfathered” status of past awards. Any description of provisions in the Amended 2017 Plan relating to Section 162(m) below is a factual description of plan provisions only, and should not be taken to imply that the “performance-based compensation” exception remains available for future grants, as it is indeed unavailable.

Board and Stockholder Approval

Pursuant to authority delegated to it by the Board, on April 10, 2017, the Compensation Committee adopted the original 2017 Plan. It was approved by our stockholders on June 6, 2017. Pursuant to authority delegated to it by the Board, on April 12, 2019, the Compensation Committee adopted the 2017 Plan Amendment.

If this Proposal No. Four is approved by our stockholders, the Amended 2017 Plan will become effective as of the date of the Annual Meeting, June 4, 2019 (the Effective Date). In the event that our stockholders do not approve this Proposal No. Four, the Amended 2017 Plan will not become effective and the original 2017 Equity Incentive Plan will continue to be effective in accordance with its terms.

Stock Price

As of March 31, 2019, the closing price of our common stock as reported on the NASDAQ Global Select Market was \$88.83 per share, and a total of 179,033,104 shares of our common stock were outstanding.

Description of the Amended 2017 Plan

The material features of the Amended 2017 Plan are described below. The following description of the Amended 2017 Plan is a summary only and is qualified in its entirety by reference to the complete text of the Amended 2017 Plan. Stockholders are urged to read the actual text of the Amended 2017 Plan in its entirety, which is attached to this Proxy Statement as Appendix A.

Purpose

The Amended 2017 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 2017 Plan provide for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, RSU 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 total number of shares that maybe issued under the Amended 2017 Plan will not exceed 31,880,015 shares, which is the sum of (i) 11,000,000 new shares, *plus* (ii) the 5,250,000 shares originally reserved as new shares under the original 2017 Equity Incentive Plan, *plus* (iii) 5,517,942 shares, which is the estimate of the number of shares subject to the available reserve of the 2006 Plan as of the effective date of the original 2017 Equity Incentive Plan, *plus* (iv) 10,112,073 shares, which is the estimated *maximum* number of shares that are subject to outstanding stock awards granted under the 2006 Plan as of the effective date of the original 2017 Equity Incentive Plan that subsequently (A) expire or terminate for any reason prior to exercise or settlement, or (B) are forfeited because of the failure to meet a contingency or condition required to vest such shares (Returning Shares). The number of Returning Shares included in the calculation of the Share Reserve above is the estimated *maximum* number, determined as if every outstanding stock award under the 2006 Plan as of the Effective Date subsequently expired, terminated or was forfeited. Such Returning Shares would previously have returned to the 2006 Plan, and will instead return to the Amended 2017 Plan, if approved. For every one share of common stock that is subject to a stock award other than an option or stock appreciation right, the shares available for issuance under the Amended 2017 Plan will be reduced by 1.92 shares. For every one share of common stock that is subject to an option or stock appreciation right, the shares available for issuance under the Amended 2017 Plan will be reduced by one share.

The following shares of our common stock will become available again for issuance under the Amended 2017 Plan: (A) any shares subject to a stock award that are not issued because the stock award or any portion thereof expires or otherwise terminates without all of the shares covered by such stock award having been issued; (B) any shares issued pursuant to a stock award that 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. Any shares that again become available for issuance will be added back as (a) one (1) share for every one (1) share that is subject to an award granted under the 2006 Plan prior to May 12, 2010; (b) one (1) share for every one (1) share that is subject to an option granted under the 2006 Plan on or after May 12, 2010; (c) 1.62 shares for every one (1) share that is subject to any award granted under the 2006 Plan on or after May 12, 2010 and prior to May 15, 2013 other than an option; (d) 1.92 shares for every one (1) share that is subject to any award granted under the 2006 Plan on or after May 15, 2013 other than an option; (e) one (1) share for every one (1) share that is subject to an Option or SAR granted under the Amended 2017 Plan; and (f) 1.92 shares for every one (1) share that is subject to an award granted under the Amended 2017 Plan other than an option or stock appreciation right.

The following shares of our common stock will not become available again for issuance under the Amended 2017 Plan: (A) any shares that are reacquired or withheld (or not issued) by the Company to satisfy the exercise, strike or purchase price of a stock award granted under the Amended 2017 Plan or a stock award granted under the Prior Plans (including any shares subject to such award that are not delivered because such award is exercised through a reduction of shares subject to such award (i.e., "net exercised"); (B) any shares that are reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with a Stock Award granted under the Plan or a stock award granted under the Prior Plans; (C) any shares repurchased by the Company on the open market with the proceeds of the exercise, strike or purchase price of a stock award granted under the Plan or a stock award granted under the Prior Plans; and (D) in the event that a stock appreciation right granted under the Plan or a stock appreciation right granted under the Prior Plans is settled in shares of common stock, the gross number of shares of common stock subject to such award.

Eligibility

All of our (including our affiliates') approximately 2,849 employees, nine non-employee Directors and 1,398 consultants as of March 31, 2019 are eligible to participate in the Amended 2017 Plan and may receive all types of awards other than incentive stock options. Incentive stock options may be granted under the Amended 2017 Plan only to our employees (including officers) and employees of our affiliates.

Section 162(m) Limits

Under the Amended 2017 Plan, subject to adjustment for certain changes in our capitalization, no participant will be eligible to be granted performance-based compensation during any calendar year more than: (i) a maximum of 1,000,000 shares of our common stock subject to stock options and stock appreciation rights whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the fair market value of our common stock on the date of grant; (ii) a maximum of 1,000,000 shares of our common stock subject to performance stock awards; and (iii) a maximum of \$10,000,000 subject to performance cash awards. Please see the section above in this proposal entitled “Performance-Based Awards and Section 162(m)” for more information about the inapplicability of certain previously available exemptions from the deduction limits of Section 162(m).

Non-Employee Director Compensation Limit

Under the Amended 2017 Plan, the maximum aggregate value of all compensation granted or paid, as applicable, to any of our non-employee Directors for service on the Board with respect to any one calendar year (beginning with the 2018 calendar year) may not exceed \$1,000,000 in total value (calculating the value of any stock awards based on the grant date fair value of such stock awards for financial reporting purposes), or, with respect to the calendar year in which a non-employee Director is first appointed or elected to the Board, \$1,500,000.

Administration

The Amended 2017 Plan will be administered by our Board, which may in turn delegate authority to administer the Amended 2017 Plan to a committee. The Board and the Compensation Committee are each considered to be a Plan Administrator for purposes of this Proposal No. Four. Subject to the terms of the Amended 2017 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 2017 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 2017 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 2017 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 2017 Plan pursuant to stock option agreements. The Amended 2017 Plan permits the grant of stock options that are intended to qualify as incentive stock options (ISOs) and nonstatutory stock options (NSOs).

The exercise price of a stock option granted under the Amended 2017 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 2017 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 No. Four 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 12 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 for cause (as defined in the Amended 2017 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 2017 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 2017 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 2017 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 2017 Plan in its discretion. Generally, a participant may not transfer a stock option granted under the Amended 2017 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 2017 Plan is 41,760,030 shares.

Stock Appreciation Rights

Stock appreciation rights may be granted under the Amended 2017 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 2017 Plan.

Restricted Stock Awards

Restricted stock awards may be granted under the Amended 2017 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

RSU awards may be granted under the Amended 2017 Plan pursuant to RSU award agreements. Payment of any purchase price may be made in any form of legal consideration acceptable to the Plan Administrator. A RSU 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 RSU award agreement. RSU 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 RSU 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 RSU award. Except as otherwise provided in a participant's RSU award agreement or other written agreement with us or one of our affiliates, RSUs that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

Performance Awards

The Amended 2017 Plan allows us to grant performance stock and cash awards, including, prior to the enactment of tax reform legislation (under the terms of the original 2017 Plan), such awards that may qualify as performance-based compensation that is not subject to the \$1,000,000 limitation on the income tax deductibility of compensation paid per covered employee imposed by Section 162(m). Please see the section above entitled "Performance-Based Awards and 162(m)" for further details on the elimination of the performance-based exemption. The provisions described below remain in the Amended 2017 Plan but will not be applicable to awards that are not considered to be "grandfathered" for purposes of relevant tax reform legislation, as described in more detail above.

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 our Compensation Committee, except that the Plan Administrator also may make any such determinations to the extent that the award is not intended to qualify as performance-based compensation under Section 162(m). 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.

A performance cash award is a cash award that is payable contingent upon the attainment of pre-determined performance goals during



a performance period. A performance cash 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 our Compensation Committee, except that the Plan Administrator also may make any such determinations to the extent that the award is not intended to qualify as performance-based compensation under Section 162(m). The Plan Administrator may specify the form of payment of performance cash awards, which may be cash or other property, or may provide for a participant to have the option for his or her performance cash award to be paid in cash or other property.

In granting a performance stock or cash award intended to qualify as “performance-based compensation” under Section 162(m), our Compensation Committee will set a period of time, or a performance period, over which the attainment of one or more goals, or performance goals, will be measured. Within the time period prescribed by Section 162(m) (no later than the earlier of the 90th day of a performance period and the date on which 25% of the performance period has elapsed, and in any event at a time when the achievement of the performance goals remains substantially uncertain), our Compensation Committee will establish the performance goals, based upon one or more criteria, or performance criteria, enumerated in the Amended 2017 Plan and described below. As soon as administratively practicable following the end of the performance period, our Compensation Committee will certify in writing whether the performance goals have been satisfied.

Performance goals under the Amended 2017 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) earnings before interest, taxes, depreciation, amortization and legal settlements; (v) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (vi) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (vii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (viii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation, other non-cash expenses and changes in deferred revenue; (ix) total shareholder return; (x) return on equity or average shareholder’s equity; (xi) return on assets, investment, or capital employed; (xii) stock price; (xiii) margin (including gross margin); (xiv) income (before or after taxes); (xv) operating income; (xvi) operating income after taxes; (xvii) pre-tax profit; (xviii) operating cash flow; (xix) sales or revenue targets; (xx) increases in revenue or product revenue; (xxi) expenses and cost reduction goals; (xxii) improvement in or attainment of working capital levels; (xxiii) economic value added (or an equivalent metric); (xxiv) market share; (xxv) cash flow; (xxvi) cash flow per share; (xxvii) cash balance; (xxviii) cash burn; (xxix) cash collections; (xxx) share price performance; (xxxi) debt reduction; (xxxii) implementation or completion of projects or processes (including, without limitation, clinical trial initiation, clinical trial enrollment and dates, clinical trial results, regulatory filing submissions, regulatory filing acceptances, regulatory or advisory committee interactions, regulatory approvals, and product supply); (xxxiii) shareholders’ equity; (xxxiv) capital expenditures; (xxxv) debt levels; (xxxvi) operating profit or net operating profit; (xxxvii) workforce diversity; (xxxviii) growth of net income or operating income; (xxxix) billings; (xl) bookings; (xli) employee retention; (xlii) initiation of studies by specific dates; (xliii) budget management; (xliv) submission to, or approval by, a regulatory body (including, but not limited to the FDA of an applicable filing or a product; (xlv) regulatory milestones; (xlvi) progress of internal research or development programs; (xlvii) acquisition of new customers; (xlviii) customer retention and/or repeat order rate; (xlix) improvements in sample and test processing times; (l) progress of partnered programs; (li) partner satisfaction; (lii) timely completion of clinical trials; (liii) submission of 510(k)s or pre-market approvals and other regulatory achievements; (liv) milestones related to research development (including, but not limited to, preclinical and clinical studies), product development and manufacturing; (lv) expansion of sales in additional geographies or markets; (lvi) research progress, including the development of programs; (lvii) strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; and (lviii) and to the extent that an award is not intended to comply with Section 162(m), other measures of performance selected by the Board or the Compensation Committee.

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. Our Compensation Committee (or, to the extent that an award is not intended to qualify as “performance-based compensation” under Section 162(m) of the Code, 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; *provided, however*, that to the extent that an award is intended to qualify as “performance-based compensation” under Section 162(m), any such adjustment may be made only if such adjustment is objectively determinable and specified in the award agreement at the time the award is granted or in such other document setting forth the performance goals for the award at the time the performance goals are established: (1) to

exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any items that are “unusual” in nature or occur “infrequently” as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) 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; (8) 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 shareholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company’s bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; (12) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the FDA or any other regulatory body; and (13) to the extent that an Award is not intended to qualify as “performance-based compensation” under Section 162(m), to make other appropriate adjustments selected by the Board or the Committee.

In addition, our Compensation Committee (or, to the extent that an award is not intended to qualify as “performance-based compensation” under Section 162(m), 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 2017 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 2017 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 2017 Plan; (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of ISOs; (iii) the class(es) and maximum number of securities that may be awarded to any participant pursuant to award limits in the Amended 2017 Plan; and (iv) the class(es) and number of securities and price per share of stock subject to outstanding stock awards.

Corporate Transaction

In the event of a transaction (as defined in the Amended 2017 Plan and described below), the Plan Administrator may take one or more of the following actions with respect to stock awards, contingent upon the closing or consummation of the corporate transaction, unless otherwise provided in the instrument evidencing the stock award, in any other written agreement between us or one of our affiliates and the participant or in our Director compensation policy, or unless otherwise provided by the Plan Administrator at the time of grant of the stock award:

- arrange for the surviving or acquiring corporation (or its parent company) to assume or continue the stock award or to substitute a similar stock award for the stock award (including an award to acquire the same consideration paid to our stockholders pursuant to the corporate transaction);
- arrange for the assignment of any reacquisition or repurchase rights held by us in respect of our common stock issued pursuant to the stock award to the surviving or acquiring corporation (or its parent company);
- accelerate the vesting (and, if applicable, the exercisability), in whole or in part, of the stock award to a date prior to the effective time of the corporate transaction as determined by the Plan Administrator (or, if the Plan Administrator does not determine such a date, to the date that is five days prior to the effective date of the corporate transaction), with the stock award terminating if not exercised (if applicable) at or prior to the effective time of the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase rights held by us with respect to the stock award;
- 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 corporate transaction, and pay such cash consideration, if any, as the Plan Administrator may consider appropriate; and
- make a payment, in such form as may be determined by the Board, equal to the excess, if any, of (A) the per share amount payable to holders of common stock in connection with the transaction, over (B) any per share exercise price under the applicable award. For clarity, this payment may be zero (\$0) if the value of the property is equal to or less than the exercise price. In addition, any escrow, holdback, earnout or similar provisions in the definitive agreement for the corporate transaction may apply to such payment to the same extent and in the same manner as such provisions apply to the holders of common stock.

The Plan Administrator is not required to take the same action with respect to all stock awards or portions of stock awards or with respect to all participants. The Plan Administrator may take different actions with respect to the vested and unvested portions of a stock award.

For purposes of the Amended 2017 Plan, a transaction generally will be deemed to occur in the event of the consummation of a change in control (as described below) or a corporate transaction, which is defined as: (i) a sale or other disposition of all or substantially all of our consolidated assets; (ii) a sale or other disposition of more than 50% 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 the transaction are converted or exchanged into other property by virtue of the transaction.

Change in Control

Under the Amended 2017 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 2017 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.

For purposes of the Amended 2017 Plan, a change in control generally will be deemed to occur in the event: (i) a person, entity or group acquires, directly or indirectly, our securities representing more than 50% of the combined voting power of our then outstanding securities, other than by virtue of a merger, consolidation, or similar transaction; (ii) there is consummated a merger, consolidation, or similar transaction and, immediately after the consummation of such transaction, our stockholders immediately prior thereto do not own, directly or indirectly, more than 50% of the combined outstanding voting power of the surviving entity or the parent of the surviving entity in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction; (iii) there is consummated a sale or other disposition of all or substantially all of our consolidated assets, other than a sale or other disposition to an entity in which more than 50% of the entity's combined voting power is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such sale or other disposition; (iv) we experience a complete liquidation or dissolution; or (v) a majority of our Board becomes comprised of individuals whose nomination, appointment, or election was not approved by a majority of the Board members or their approved successors.

Plan Amendments and Termination

The Plan Administrator will have the authority to amend or terminate the Amended 2017 Plan at any time. However, except as otherwise provided in the Amended 2017 Plan or an award agreement, no amendment or termination of the Amended 2017 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 2017 Plan as required by applicable law and listing requirements. No ISOs may be granted under the Amended 2017 Plan after the tenth anniversary of the date the Amended 2017 Plan was adopted by our Board.

U.S. Federal Income Tax Consequences

The following is a summary of the principal U.S. federal income tax consequences to participants and us with respect to participation in the Amended 2017 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 under the Amended 2017 Plan. The Amended 2017 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 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 their 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 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

We have not granted incentive stock options since the second quarter of 2014, and we do not have any current intention to do so in the near future.

The Amended 2017 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 and the provisions 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 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 an RSU 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 an RSU 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 RSU 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 an RSU 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 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 RSU 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 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.

New Plan Benefits

All awards under the Amended 2017 Plan are made in the discretion of the Plan Administrator, and no Awards have been granted under the Amended 2017 Plan subject to stockholder approval of this Proposal No. Four. Therefore, the benefits and amounts that will be received or allocated under the Amended 2017 Plan are not determinable at this time. Our past equity grants to our NEOs, and our current Director compensation policy, are discussed above.

2017 Equity Incentive Plan Benefits

The following table shows, for each of the named executive officers and the various groups indicated, the number of stock options underlying shares of common stock that have been granted (even if not currently outstanding) under the 2017 Equity Incentive Plan since its approval by the stockholders in June 2017 and through March 31, 2019.

2017 EQUITY INCENTIVE PLAN, AS AMENDED

Name and Position	Number of shares subject to grant (#)
Jean-Jacques Bienaimé, Chairman and Chief Executive Officer	235,270
Daniel Spiegelman, Executive Vice President and Chief Financial Officer	63,350
Jeff Ajer, Executive Vice President and Chief Commercial Officer	64,490
Robert A. Baffi, Ph.D., Executive Vice President of Technical Operations	62,880
Henry J. Fuchs, M.D., President of Worldwide Research & Development	83,460
Executive Officer Group (seven persons)	590,430
Non-Executive Director Group (nine persons)	39,280
Nominees for Director (ten persons, consisting of Jean-Jacques Bienaimé and the Non-Executive Directors)	274,550
Each Associate of any Director, Executive Officer or Nominee	—
Each Other Current 5% Holder or Future 5% Recipient	—



THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL NO. FOUR.

Proposal No. Five: Approval of Amendments to the Amended and Restated 2006 Employee Stock Purchase Plan

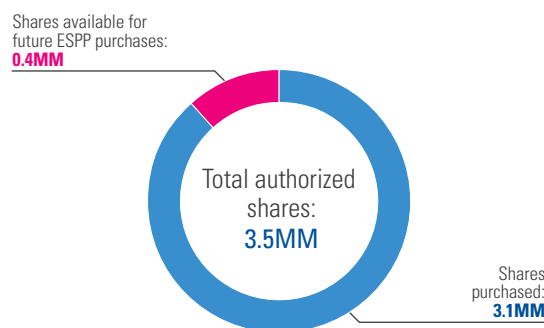
Purpose of Proposal

Our Board is requesting stockholder approval of amendments (the 2006 ESPP Amendments) to the BioMarin Pharmaceutical Inc. Amended and Restated 2006 Employee Stock Purchase Plan (the 2006 ESPP) to:

1. increase the number of shares of common stock authorized for issuance under the 2006 ESPP by 3,500,000 shares (representing less than 2% of our shares of common stock outstanding as of March 31, 2019), from 3,500,000 shares to 7,000,000 shares;
2. extend the term of the 2006 ESPP; and
3. make other administrative changes (including the definition of eligible employees, changes to the enrollment and withdrawal processes, clarification of fair market value determination for overlapping offering periods, and delegation of powers to the administrator related to Non-United States Offerings).

Why the Board Believes You Should Vote **FOR** Proposal No. Five

- *Attracting and retaining talent.*
 - For many years, a competitive employee stock purchase plan has been an important element in recruiting, motivating, and retaining our workforce that is essential to the Company's continued progress and creation of long-term stockholder value.
 - We believe an employee stock purchase plan help employees to think and act like owners.
- *Limited shares remain available for issuance under the 2006 ESPP.*
 - As shown in the graphic below, as of April 12, 2019, only 364,815 shares of common stock remained available for future issuance under the 2006 ESPP out of a total authorized 3,500,000 shares.



- The Board adopted the 2006 ESPP Amendments primarily in order to replenish the reserve of shares that are available to allow eligible employees to purchase, through payroll deductions, shares of the Company's common stock. We estimate that, with an increase of 3,500,000 shares, we will have a sufficient number of shares to cover purchases under the 2006 ESPP for approximately 12 years.
- If the 2006 ESPP Amendments are approved, our ability to offer competitive compensation packages to attract new talent and to retain our best performers will be reestablished.
- *The Company has demonstrated commitment to sound equity compensation practices.*
 - We recognize that equity purchases by employees dilute stockholder equity and must be used judiciously.
 - Our equity compensation practices are designed to be in line with industry norms, and we believe our historical share usage has been responsible and mindful of stockholder interests.

Summary of Material Changes

- *Increase in the Number of Available Shares.* The 2006 ESPP currently provides that no more than 3,500,000 shares of common stock may be purchased under the 2006 ESPP. 364,815 shares remain available for purchase under the 2006 ESPP as of April 12, 2019. The 2006 ESPP Amendments will increase the share reserve of common stock available for purchase under the 2006 ESPP by 3,500,000 shares, thereby increasing the maximum number of shares from 3,500,000 to 7,000,000 shares.
- *Extension of the Term.* The 2006 ESPP currently expired by its terms with respect to future offering periods on May 2, 2018. The 2006 ESPP Amendments will allow the 2006 ESPP to continue with respect to new offerings until terminated by the Board.

Background

The 2006 ESPP was originally adopted by the Board in May 2006 and approved by our stockholders on June 21, 2006 and was last amended by stockholders on March 5, 2014. The 2006 ESPP expired by its terms in May 2018. However, pursuant to Section 19(a) of the 2006 ESPP, the Board has the authority to amend the 2006 ESPP. On April 12, 2019, pursuant to authority delegated to it by the Board, the Compensation Committee unanimously approved and adopted, subject to the approval of the Company's stockholders at the Annual Meeting, the 2006 ESPP Amendments.

The 2006 ESPP is primarily designed to retain and motivate U.S. employees of the Company and its designated affiliates by encouraging them to acquire ownership in the Company on a tax-favored basis. In particular, the 2006 ESPP is intended to be an "employee stock purchase plan" within the meaning of Section 423 of the Internal Revenue Code of 1986, as amended (the Code), and thereby to allow participating employees to defer recognition of taxes when purchasing common stock at a discount under such a purchase plan. The maximum number of shares available to participants in the 2006 ESPP for purchase under offering periods ending after April 30, 2014 is 3,500,000 shares. Such shares may be newly-issued or treasury shares, or instead purchased by a designated broker who will be purchasing shares for participants in the open market. To the extent the Company offers to sell shares at a price below fair market value, the Company will make cash payments to the broker to subsidize the discount.

If stockholders do not approve the 2006 ESPP Amendments, no shares will be added to the total number of shares reserved for issuance under the 2006 ESPP and the 2006 ESPP will remain expired. The Board believes that the failure to ratify and approve the amendments to the 2006 ESPP Amendments will limit the Company's ability to offer the benefits available under the 2006 ESPP to its employees, which would adversely affect the Company's future hiring and operating plans.

If the Company's stockholders approve the amendments to the 2006 ESPP Amendments at the Annual Meeting or any adjournment thereof, it will become effective on the day of the Annual Meeting and the Company intends to file a registration statement on Form S-8 under the Securities Act in order to register the sale of the shares of common stock that will be authorized under the amendments to the 2006 ESPP Amendments.

The Company's Named Executive Officers have an interest in this proposal as they are eligible to purchase shares under the 2006 ESPP.

Description of the 2006 ESPP, as Amended

The material features of the 2006 ESPP, as amended by the 2006 ESPP Amendments, are described below. The following description of the 2006 ESPP, as amended by the 2006 ESPP Amendments, is a summary only and is qualified in its entirety by reference to the complete text of the 2006 ESPP, as amended by the 2006 ESPP Amendments. Stockholders are urged to read the actual text of the 2006 ESPP, as amended by the 2006 ESPP Amendments, in its entirety, which is attached to this Proxy Statement as Appendix B.

Administration

The 2006 ESPP will be administered by the Board or a person, committee, or Company department, division or function appointed from time to time by the Board (the Administrator). The Board or the Administrator, if one has been appointed, is vested with full authority to construe, interpret and apply the terms of the 2006 ESPP, to determine eligibility, to adjudicate all disputed claims under the 2006 ESPP, to adopt, amend and rescind any rules deemed appropriate for the administration of the 2006 ESPP, and to make all other determinations necessary or advisable for the administration of the 2006 ESPP. The Administrator may adopt rules and procedures

regarding handling of payroll deductions, payment of interest, conversion of local currency, payroll tax, withholding procedures and handling of stock certificates which vary with local requirements. The Administrator may also adopt sub-plans, applicable to the Company or designated subsidiaries, which may be outside the scope of Code Section 423. Determinations by the Board or the Administrator, as to the interpretation and operation of the 2006 ESPP, will be final and binding on all parties. The Company's Compensation Committee currently administers the 2006 ESPP.

Offering Periods and Purchase Dates

The 2006 ESPP includes overlapping Offering Periods, which are twenty-four months each (the Offering Period or Offering), with a new Offering Period generally commencing on the first business day on or after May 1 or November 1 of each year (or on such other day as the Administrator shall determine), and ending on the last day of the calendar month that is approximately twenty-four (24) months following the first day of the Offering Period. In the event the Fair Market Value of a Share on the Offering Date of an ongoing Offering Period is greater than or equal to the Fair Market Value of a Share on the Offering Date of a newer Offering Period, then the ongoing Offering Period will terminate and all participants (including those previously enrolled in ongoing Offering Periods) will automatically become enrolled in the newer Offering Period. The Administrator or the Board may change the Purchase Period associated with future Offerings to up to 27 months, without stockholder approval, but with notice to affected participants as soon as administratively practicable prior to the first Purchase Period to be affected.

Eligibility

All employees of the Company and its designated affiliates (including designated related entities for sub-plans) as of the date two months before the Offering Date of a given Offering Period are eligible to participate in the 2006 ESPP. Persons who are deemed for purposes of Section 423(b)(3) of the Code to own shares of Common Stock possessing 5% or more of the total combined voting power or value of all classes of Common Stock or shares of a subsidiary will be ineligible to participate in the 2006 ESPP. In addition, if an option granted pursuant to the 2006 ESPP would permit a person's rights to purchase shares of Common Stock to accrue at a rate that exceeds \$25,000 of the fair market value (Fair Market Value) of such Common Stock for any calendar year, such person will not be eligible to participate in the 2006 ESPP. In addition, the Board or the Administrator, in its sole discretion, may permit Company employees who are 5% or more stockholders, and consultants to participate in certain sub-plans which are not designed to qualify as Code Section 423 plans. As of the Record Date, the Company and its designated affiliates had no Directors or consultants who were eligible to participate in the 2006 ESPP and approximately 2,068 employees were eligible to participate in the 2006 ESPP.

Participation

Eligible employees may elect to participate in one or more of the Offering Periods, by electing to make payroll deductions during the Offering Period. The amount of the payroll deductions must not be less than one percent (1%) or more than ten percent (10%) of a participant's compensation on each payday of the Offering Period, subject to both adjustment for capital changes and to the discretion of the Board or the Administrator to revise these limits for any Offering before it commences. All sums deducted from the regular compensation of participants will be credited to a share purchase account established for each participant on the Company's books, but prior to use of these funds for the purchase of shares of Common Stock in accordance with the 2006 ESPP, the Company may use these funds for any valid corporate purpose. The Company will not be under any obligation to pay interest on funds credited to a participant's stock purchase account in any event.

Price

The price per share of Common Stock sold under the 2006 ESPP during an Offering will be 85% of the Fair Market Value of a Share of the Company's Common Stock on the Offering Date (the first day of each Offering Period) or the Purchase Date (the last day of a Purchase Period), whichever is lower; provided that the Administrator may establish an alternative purchase price so long as it does not result in a lower purchase price than is allowed under Code Section 423. Each participating employee will receive an option, effective on the first day of the Offering, to purchase shares of Common Stock on the last day of the Offering. The number of shares which a participant may purchase under the option during each Offering will be the quotient of the aggregate payroll deductions in the Offering

authorized by the participant, and not withdrawn, divided by the applicable purchase price; provided, however, that the maximum number of shares a participant may purchase shall not exceed 5,000 shares per Purchase Period. The Administrator may increase or decrease the number of shares a participant may purchase each Purchase Period of a future Offering Period.

Purchase of Shares

A participant's option to purchase Common Stock pursuant to the 2006 ESPP will be automatically exercised on the Purchase Date. Before that date, a participant may terminate his or her participation in the 2006 ESPP by providing written notice to the Company and/or its designated broker (Designated Broker) prior to the date determined and communicated by the Administrator for such Offering. A participant who terminates his or her participation in the 2006 ESPP during an Offering will receive a refund of his or her 2006 ESPP contributions. A participant who withdraws from an Offering may enroll in a subsequent Offering Period by completing and submitting the Subscription Materials. Other than terminating his or her participation in the 2006 ESPP altogether, once an Offering begins, a participant may only increase or decrease how much he or she has elected to contribute to the 2006 ESPP during the Offering in accordance with the rules that the Administrator establishes before the Offering begins.

The Administrator shall determine for each Purchase Period whether and the extent to which the shares shall be newly issued or treasury shares, or purchased on the open market through a Designated Broker. To the extent that the purchase price for the shares is below Fair Market Value for any Purchase Period, the Company will pay the Designated Broker the amounts necessary to subsidize the purchase price for shares purchased on the open market.

Transferability

Options under the 2006 ESPP may not be assigned, transferred, pledged or otherwise disposed of except by will or in accordance with the laws of descent and distribution.

Employment Termination

If a participant's employment terminates for any reason, his or her payroll deductions or contributions will be refunded and his or her option will be terminated.

Duration of 2006 ESPP

If approved at the Annual Meeting, the 2006 ESPP, as amended, will continue until terminated by the Board.

Amendment or Termination of the 2006 ESPP

The Board may at any time amend or terminate the 2006 ESPP, subject to stockholder approval to the extent the Board or the Administrator determines that such approval is appropriate, for example, to conform the 2006 ESPP with Section 423 of the Code (currently, for example, the approval of the stockholders of the Company is required to increase the number of shares of Common Stock authorized for purchase under the 2006 ESPP, to change the class of employees eligible to receive options under the 2006 ESPP, other than to designate additional affiliates as eligible subsidiaries for the 2006 ESPP) and to extend the term of the 2006 ESPP beyond its May 2018 expiration.

Change in Company Capital Structure

If there is any change in the shares of the Company as a result of a merger, consolidation, reorganization, recapitalization, declaration of stock dividends, stock split, combination of shares, exchange of shares, change in corporate structure or similar event, appropriate adjustments will be made to the class and number of shares that the 2006 ESPP may issue the class and number of shares each participant may purchase, and the class and number of shares and the price per share under each outstanding purchase right.

U.S. Federal Income Tax Consequences

No taxable income will be recognized by a participant until the sale or other disposition of the shares of Common Stock acquired under the 2006 ESPP. At that time, a participant generally will recognize ordinary income and capital gains. When the shares are disposed of by a participant two years or more after the beginning of the Offering in which the shares were purchased, he or she will recognize ordinary income equal to the lesser of (a) 15% of the Fair Market Value of the shares on the date of grant or (b) the excess of the Fair Market Value of the shares at disposition over the purchase price. When shares are disposed of after less than two years (in what is known as a “disqualifying disposition”), the participant must recognize ordinary income in the amount of the excess of the Fair Market Value of the stock on the purchase date over purchase price, even if the disposition is a gift or is at a loss. In the event of a participant’s death while owning shares acquired under the 2006 ESPP, ordinary income must be recognized in the year of death as though the shares had been sold.

In the cases discussed above (other than death), the amount of ordinary income recognized by a participant is added to the purchase price paid by the participant, and this amount becomes the tax basis for determining the amount of the capital gain or loss from the disposition of the shares. Additional gain, if any, will be short-term or long-term capital gain depending on whether the holding period is 12 months or less, or more than 12 months.

Net capital gains from the disposition of capital stock held more than 12 months are currently taxed at a maximum federal income tax rate of 20% and net capital gains from the disposition of stock held not more than 12 months is currently taxed as ordinary income (maximum federal rate of 37%). However, limitations on itemized deductions and the phase-out of personal exemptions may result in effective marginal tax rates higher than 20% for net capital gains and 37% for ordinary income.

The Company is entitled to tax deductions for shares issued under the 2006 ESPP only in the event of disqualifying dispositions. For disqualifying dispositions, the Company is allowed a deduction to the extent of the amount of ordinary income includable in gross income by such participant for the taxable year as a result of the premature disposition of the shares.

The foregoing is only a summary of the effect of federal income taxation upon the participants and the Company with respect to participation in the 2006 ESPP and does not purport to be complete. Furthermore, the foregoing does not discuss the income tax laws of any municipality, state or foreign country in which a participant may reside. Participants should consult their own tax advisors with respect to the tax consequences of participation in the 2006 ESPP for their particular situations.

New Plan Benefits

Participation in the 2006 ESPP is voluntary and each eligible employee will make his or her own decision whether and to what extent to participate in the plan. It is therefore not possible to determine the benefits or amounts that will be received in the future by individual employees or groups of employees under the 2006 ESPP.

Stockholder Approval

If this Proposal No. Five is approved by our stockholders, the 2006 ESPP will become effective as of the date of the Annual Meeting, June 4, 2019 (the Effective Date). In the event that our stockholders do not approve this Proposal No. Five, the 2006 ESPP Amendments will not become effective.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL NO. FIVE.

Additional Information

Questions and Answers about these Proxy Materials and Voting

Why did I receive a one-page notice in the mail regarding the Internet availability of proxy materials instead of a full set of proxy materials?

Pursuant to rules adopted by the SEC, we have elected to provide access to our proxy materials over the Internet. Accordingly, we are sending an Important Notice Regarding the Availability of Proxy Materials (the Proxy Availability Notice) to our stockholders of record. All stockholders will have the ability to access the proxy materials on the website referred to in the Proxy Availability Notice free of charge or request to receive a printed set of the proxy materials for the Annual Meeting. Instructions on how to access the proxy materials over the Internet or to request a printed copy may be found in the Proxy Availability Notice.

We intend to mail the Proxy Availability Notice on or about April 23, 2019 to all stockholders of record entitled to vote at the Annual Meeting. We expect that this Proxy Statement and the other proxy materials will be available to stockholders on or about April 23, 2019.

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

If you receive more than one Proxy Availability Notice, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on each Proxy Availability Notice to ensure that all of your shares are voted.

How do I attend the Annual Meeting?

The Annual Meeting will be held on Tuesday, June 4, 2019 at 9:00 a.m. (Pacific Time), at the Company's offices in the Morning Glory Conference Room, 750 Lindero Street, San Rafael, CA 94901. You may contact Investor Relations at IR@bmrn.com to obtain directions to the Annual Meeting. Information on how to vote in person at the Annual Meeting is discussed below. If you plan to attend the Annual Meeting, please note that attendance will be limited to stockholders as of April 8, 2019, the Record Date. Each stockholder may be asked to present valid photo identification, such as a driver's license or passport. Stockholders holding stock in brokerage accounts or by a bank or other nominee may be required to show a brokerage statement or account statement reflecting stock ownership as of the Record Date. Cameras, recording devices, and other electronic devices will not be permitted at the Annual Meeting.

Who can vote at the Annual Meeting?

Only stockholders of record at the close of business on the Record Date will be entitled to vote at the Annual Meeting. On the Record Date, there were 179,052,949 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 BioMarin's transfer agent, Computershare Inc., then you are a stockholder of record. As a stockholder of record, you may vote in person at the Annual Meeting or vote by proxy. Whether or not you plan to attend the Annual Meeting, we urge you to vote by proxy over the telephone, or on the Internet as instructed below, or complete, date, sign and return the proxy card mailed to you to ensure your vote is counted.



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

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 the Proxy Availability 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, bank or other nominee regarding how to vote the shares in your account. You are also invited to attend the Annual Meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the Annual Meeting unless you request and obtain a valid proxy from your broker, bank or other nominee.

What am I voting on?

There are five matters scheduled for a vote:

1. To elect the ten nominees for Director to serve until the next Annual Meeting and until their successors are duly elected and qualified;
2. To ratify the selection of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019;
3. To approve, on an advisory basis, the compensation of the Company’s NEOs as disclosed in this Proxy Statement;
4. To approve an amendment to the 2017 Plan; and
5. To approve amendments to the 2006 ESPP.

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

The Board 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, the persons named in the accompanying proxy will vote on those matters in accordance with their best judgment.

What is the Board’s voting recommendation?

The Board recommends that you vote your shares:

- “FOR” the election of all ten nominees for Director;
- “FOR” the ratification of the selection of KPMG LLP as our independent registered public accounting firm for BioMarin for its fiscal year ending December 31, 2019;
- “FOR” the approval, on an advisory basis, of the compensation of the Company’s NEOs as disclosed in this Proxy Statement;
- “FOR” the approval of an amendment to the 2017 Plan; and
- “FOR” the approval of amendments to the 2006 ESPP.

How do I vote?

With regard to the election of Directors, you may vote “For” all the nominees to the Board or you may “Withhold” your vote for all the nominees or any individual nominee you specify. With regard to each of the other matters to be voted on, you may vote “For” or “Against” or abstain from voting.

The procedures for voting depend on whether your shares are registered in your name or are held by a bank, broker or other nominee:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in person 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, we urge you to vote by proxy to ensure your vote is counted. You may still attend the Annual Meeting and vote in person even if you have already voted by proxy.

- To vote over the telephone, dial toll-free 1-800-690-6903 using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number from the Proxy Availability Notice. Your vote must be received by 11:59 p.m., Eastern Daylight Time on June 3, 2019 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 company number and control number from the Proxy Availability Notice. Your vote must be received by 11:59 p.m., Eastern Daylight Time, on June 3, 2019 to be counted.
- To vote using the proxy card, simply complete, sign and date the proxy card that may be delivered to you and return it promptly in the envelope provided. If you return your signed proxy card to us and we receive it before the Annual Meeting, we will vote your shares as you direct.
- To vote in person, come to the Annual Meeting and we will give you a ballot when you arrive.

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

If you are a beneficial owner of shares registered in the name of your broker, bank, or other nominee, you should have received a Proxy Availability Notice containing voting instructions from that organization rather than from BioMarin. Simply follow the voting instructions in the Proxy Availability Notice to ensure that your vote is counted. To vote in person at the Annual Meeting, you must obtain a valid proxy from your broker, bank or other nominee. Follow the instructions from your broker, bank or other nominee included with these proxy materials, or contact your broker, bank or other nominee to request a proxy form.

Internet proxy voting may be provided 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.

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 but do not make specific choices?

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, "FOR" the election of all ten nominees for Director, "FOR" the ratification of KPMG as the Company's independent registered public accounting firm, "FOR" the advisory approval of the compensation of the NEOs, "FOR" the amendment to the 2017 Plan, and "FOR" the amendments to the 2006 ESPP. If any other matter is properly presented at the Annual Meeting, your proxy holder (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

Will my vote be kept confidential?

Proxies, ballots and voting tabulations are handled on a confidential basis to protect your voting privacy. This information will not be disclosed, except as required by law.



Who is paying for this proxy solicitation?

The accompanying proxy is solicited on behalf of the Board for use at the Annual Meeting. Accordingly, the Company will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our Directors and employees and Morrow Sodali LLC may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees of the Company will not be paid any additional compensation for soliciting proxies, but Morrow Sodali LLC will be paid its customary fee of approximately \$7,500 plus out-of-pocket expenses if it solicits proxies. We may also reimburse brokerage firms, banks and other nominees for the cost of forwarding proxy materials to beneficial owners.

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 the record holder of your shares, you may revoke your proxy in any one of the following ways:

- You may submit another properly completed proxy card with a later date.
- You may grant a subsequent proxy by telephone or through the Internet.
- You may send a timely written notice that you are revoking your proxy to the Company's Secretary at BioMarin Pharmaceutical Inc., Attention: G. Eric Davis, 105 Digital Drive, Novato, CA 94949. Such notice will be considered timely if it is received at the indicated address by close of business on the business day immediately preceding the date of the Annual Meeting.
- You may attend the Annual Meeting and vote in person. Simply attending the Annual Meeting will not, by itself, revoke your proxy.

Your most current proxy card or telephone or Internet proxy is the one that is counted, so long as it is provided within the applicable deadline. If your shares are held by your broker, banker or other nominee, you should follow the instructions provided by your broker, bank or other nominee.

When are stockholder proposals and Director nominations for inclusion in our proxy statement for next year's Annual Meeting due?

Stockholders wishing to present proposals for inclusion in our proxy statement for the 2020 Annual Meeting pursuant to Rule 14a-8 of the Exchange Act must submit their proposals so that they are received by us at our principal executive offices no later than December 25, 2019. However, if our 2020 Annual Meeting is not held between May 5, 2020 and July 4, 2020, then the deadline will be a reasonable time prior to the time that we begin to print and mail our proxy materials.

Eligible stockholders wishing to nominate a candidate for election to the Board at the 2020 Annual Meeting and to have such candidate included in the proxy materials for such meeting pursuant to our proxy access bylaw must submit such nomination between November 25, 2019 and December 25, 2019 and must include the information set forth in Article II, Section 2.15(c) of our Bylaws.

Proposals for inclusion in our proxy statement for the 2020 Annual Meeting should be sent to the Company's Secretary at BioMarin Pharmaceutical Inc., Attention: G. Eric Davis, Executive Vice President, General Counsel and Secretary, 105 Digital Drive, Novato, CA 94949.

When are other proposals and Director nominations for next year's Annual Meeting due?

With respect to proposals and nominations other than those to be included in our proxy statement pursuant to Rule 14a-8 of the Exchange Act or our proxy access bylaw, our Bylaws provide that stockholders who wish to nominate a Director or propose other business to be brought before the stockholders at the Annual Meeting must notify our Secretary by a written notice, which notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the anniversary date of the immediately preceding year's Annual Meeting of Stockholders.

For the 2020 Annual Meeting, stockholders wishing to present nominations for Director or proposals for consideration under these provisions of our Bylaws must submit their nominations or proposals so that they are received at our principal executive offices not earlier than February 5, 2020 and not later than March 6, 2020 in order to be considered. In the event that the 2020 Annual Meeting is to be held on a date that is not within 25 days before or 60 days after June 4, 2020, then a stockholder's notice must be received by the Secretary no later than the close of business on the 10th day following the day on which notice of the date of the 2020 Annual Meeting was mailed or the day we make a public announcement of the date of the 2020 Annual Meeting, whichever first occurs.

In addition, with respect to nominations for Directors, if the number of Directors to be elected at the 2020 Annual Meeting is increased effective at the 2020 Annual Meeting and there is no public announcement by us naming the nominees for the additional Directorships at least 100 days prior to June 4, 2020, a stockholder's notice will also be considered timely, but only with respect to nominees for the additional Directorships, if it is delivered to our Secretary at our principal executive offices not later than the close of business on the 10th day following the day on which such public announcement is first made by us.

Nominations or proposals should be sent in writing to the Company's Secretary at BioMarin Pharmaceutical Inc., Attention: G. Eric Davis, 105 Digital Drive, Novato, CA 94949. A stockholder's notice to nominate a Director or bring any other business before 2020 Annual Meeting must set forth certain information, which is specified in our Bylaws. A complete copy of our Bylaws may be found in the Corporate Governance section of the Investors section of our website at www.bmrn.com. Information on our website is NOT incorporated by reference in this Proxy Statement.

How can I recommend a Director nominee for consideration by the CGN Committee?

In order for a stockholder to have a candidate considered by the CGN Committee, a stockholder should submit a written recommendation that includes: (i) the name and record address of the stockholder (and beneficial owner, if any, on whose behalf the nomination is made) and evidence of the stockholder's and beneficial owner's ownership of our stock, including the number of shares owned and the length of time of ownership; (ii) a description of any agreement, arrangement or understanding with respect to the nomination between or among such stockholder and/or such beneficial owner and affiliates or others acting together; (iii) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, warrants, convertible securities, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such stockholder and/or such beneficial owners; (iv) a representation that the stockholder and/or any beneficial owner intends to appear in person or by proxy at the meeting to nominate the persons named in its notice; (v) whether the stockholder or any beneficial owner intends or is part of a group that intends to deliver a proxy statement and/or form of proxy to holders of at least the percentage of our outstanding capital stock required to elect the nominee and/or otherwise to solicit proxies from stockholders in support of such nomination; and (vi) any other information relating to such stockholder that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitation of proxies for election of Directors pursuant to Section 14 of the Exchange Act. With respect to each person whom the stockholder proposes to nominate for election as a Director, the stockholder must include (1) the name, age, business address and residence address of the Director candidate, (2) the candidate's resume or a listing of his or her qualifications to be a Director (including principal occupation or employment), (3) the class or series and number of shares of stock which are owned beneficially or of record by the candidate, and (4) any other information relating to the candidate that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitation of proxies for election of Directors pursuant to Section 14 of the Exchange Act. The notice must also be accompanied by a written consent of each proposed nominee to being named as a nominee if selected by the CGN Committee and nominated by the Board. Stockholder recommendations should be addressed to the Corporate Governance and Nominating Committee at 105 Digital Drive, Novato, CA 94949, c/o G. Eric Davis, Executive Vice President, General Counsel and Secretary.

For stockholder nominations to be included in the proxy materials for a future meeting pursuant to our proxy access bylaw or brought before the stockholders at a future meeting, please see "When are stockholder proposals and Director nominations for inclusion in our proxy statement for next year's Annual Meeting due?" and "When are other proposals and Director nominations for next year's Annual Meeting due?" above.



How are votes counted?

Votes will be counted by the inspector of election appointed for the Annual Meeting, who will separately count, “For,” “Withhold” and broker non-votes for the proposal to elect Directors, and with respect to other proposals, votes “For,” “Against,” “Abstain” and broker non-votes, if applicable.

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, bank or other nominee holding the shares as to how to vote. Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker, bank or other nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker, bank or other nominee can still vote the shares with respect to matters that are considered to be “routine,” but cannot vote the shares with respect to “non-routine” matters. Under the rules and interpretations of the New York Stock Exchange (the NYSE), which generally apply to all brokers, bank or other nominees, on voting matters characterized by the NYSE as “routine,” NYSE member firms have the discretionary authority to vote shares for which their customers do not provide voting instructions. On non-routine proposals, such as “uninstructed shares” may not be voted by member firms. Only Proposal No. Two—Ratification of the selection of our independent registered public accounting firm is considered a “routine” matter for this purpose, and brokers, banks or other nominees will generally have discretionary voting power with respect to such proposal.

What is the effect of abstentions and broker non-votes?

Abstentions: Under Delaware law (under which BioMarin is incorporated), abstentions are counted as shares present and entitled to vote at the Annual Meeting, and therefore counted as present for the purpose of determining whether a quorum is present, but they are not counted as shares cast. Our Bylaws provide that a stockholder action (other than the election of Directors and unless otherwise required by applicable laws, regulations or stock exchange rules) shall be decided by the vote of the holders of a majority of the total number of votes of the Company’s capital stock cast on the matter. Therefore, abstentions will have no effect on Proposal No. Two—Ratification of the selection of KPMG as our independent registered public accounting firm, Proposal No. Three—Advisory vote on executive compensation, Proposal No. Four—Approval of an amendment to the 2017 Plan, or Proposal No. Five—Approval of amendments to the 2006 ESPP.

Broker Non-Votes: The “non-routine” matters on the agenda for the Annual Meeting for which brokers, banks and other nominees will not be able to vote uninstructed shares include Proposal No. One—Election of Directors, Proposal No. Three—Advisory vote on executive compensation, Proposal No. Four—Approval of an amendment to the 2017 Plan, or Proposal No. Five—Approval of amendments to the 2006 ESPP.

Broker non-votes will be counted as present at the Annual Meeting for the purpose of determining whether a quorum is present at the Annual Meeting. However, because broker non-votes are not considered under Delaware law to be votes cast, they will have no effect on the outcome of the vote on: Proposal No. One—Election of Directors, Proposal No. Three—Advisory vote on executive compensation, Proposal No. Four—Approval of an amendment to the 2017 Plan, or Proposal No. Five—Approval of amendments to the 2006 ESPP. As a result, if you hold your shares in street name and you do not instruct your broker, bank or other nominee how to vote your shares on these proposals, no votes will be cast on your behalf on these proposals. **Therefore, it is critical that you indicate your vote on these proposals if you want your vote to be counted.** Proposal No. Two—Ratification of the selection of KPMG as our independent registered public accounting firm is considered a “routine” matter. Therefore, your broker, bank or other nominee will be able to vote on that proposal even if it does not receive instructions from you, so long as it holds your shares in its name.

How many votes are needed to approve each proposal?

Proposal	Vote Required	Broker Discretionary Voting Allowed?
No. One. Election of Directors	Plurality	No
No. Two. Ratification of Independent Registered Public Accounting Firm	Majority Cast	Yes
No. Three. Advisory Vote on Executive Compensation	Majority Cast	No
No. Four. Approval of an Amendment to the 2017 Plan	Majority Cast	No
No. Five. Approval of Amendments to the 2006 ESPP	Majority Cast	No

A "Plurality," with regard to the election of Directors, means that the ten nominees who receive the most "For" votes cast by the holders of shares either present in person or represented by proxy and entitled to vote will be elected to our Board. A "Majority Cast," with regard to the ratification of our independent registered public accounting firm, the advisory vote on executive compensation, the approval of an amendment to the 2017 Plan and the approval of amendments to the 2006 ESPP means that a majority of the votes cast on each proposal must be voted "For" the respective proposal.

Accordingly:

- Proposal No. One: For the election of Directors, the ten nominees receiving the most "For" votes cast by the holders of shares present in person or represented by proxy and entitled to vote on Proposal No. One will be elected. Only votes "For" or "Withheld" will affect the outcome. Broker non-votes will have no effect. Pursuant to our Corporate Governance Principles, any nominee for Director who receives a greater number of votes "withheld" from his or her election than votes "for" his or her election in an uncontested election at a stockholders' meeting should promptly tender his or her resignation to the Chair the Board following certification of the stockholder vote.
- Proposal No. Two: To be approved, a majority of the total votes cast on Proposal No. Two must be voted "For" the ratification of the selection of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019. Abstentions and broker non-votes will not be considered votes cast on Proposal No. Two and will have no effect; however, the ratification of KPMG is a matter on which a broker, bank or other nominee has discretionary voting authority, and thus, we do not expect any broker non-votes with respect to Proposal No. Two.
- Proposal No. Three: To be approved, a majority of the total votes cast on Proposal No. Three must be voted "For" the advisory approval of the compensation of the Company's NEOs. Abstentions and broker non-votes will not be considered votes cast on Proposal No. Three and will have no effect.
- Proposal No. Four: To be approved, a majority of the total votes cast on Proposal No. Four must be voted "For" the approval of an amendment to the 2017 Plan. Abstentions and broker non-votes will not be considered votes cast on Proposal No. Four and will have no effect.
- Proposal No. Five: To be approved, a majority of the total votes cast on Proposal No. Five must be voted "For" the approval of amendments to the 2006 ESPP. Abstentions and broker non-votes will not be considered votes cast on Proposal No. Five and will have no effect.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid stockholder meeting. A quorum will be present if stockholders holding at least a majority of the outstanding shares entitled to vote are present in person or represented by proxy at the Annual Meeting. On the Record Date, there were 179,052,949 shares outstanding and entitled to vote. Thus, the holders of at least 89,526,476 shares must be present in person or represented by proxy at the Annual Meeting to have a quorum.

Your shares will be counted towards the quorum only if you submit a valid proxy by mail, over the phone or through the Internet (or one is submitted on your behalf by your broker, bank or other nominee) or if you attend the Annual Meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, then the holders entitled to vote thereat, present at the Annual Meeting in person or represented by proxy, by a majority of the votes cast, may adjourn the meeting to another date. At



any adjourned Annual Meeting at which a quorum is present, any business may be transacted that might have been transacted at the Annual Meeting as originally notified. If the adjournment is for more than 30 days, or if after that adjournment a new record date is fixed for the adjourned Annual Meeting, a notice of the adjourned Annual Meeting shall be given to each stockholder of record entitled to vote at the adjourned Annual Meeting.

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

Preliminary voting results will be announced at the Annual Meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file with the SEC within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K with the SEC within four business days after the Annual Meeting, we intend to file a Form 8-K to publish the preliminary results within four business days after the Annual Meeting and file an amended Form 8-K to publish the final results within four business days after the final results are known to us.

If you have any questions or need assistance in voting your shares, please call the following firm, which is assisting the Company in the solicitation of proxies:

Morrow Sodali LLC
470 West Avenue
Stamford, CT 06902
1-800-662-5200

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (*e.g.*, brokers) to satisfy the delivery requirements for the Proxy Availability Notice or other Annual Meeting materials with respect to two or more stockholders sharing the same address by delivering a single Proxy Availability Notice or other Annual Meeting Materials addressed to those stockholders. This process, which is commonly referred to as householding, potentially provides extra convenience for stockholders and cost savings for companies. Stockholders who participate in householding will continue to be able to access and receive separate proxy cards.

This year, a number of brokers with account holders who are our stockholders will be "householding" our proxy materials. A Proxy Availability Notice or proxy materials will be delivered in one single envelope to multiple stockholders sharing an address unless contrary instructions have been received from one or more of 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 Proxy Availability Notice or proxy materials, please notify your broker or contact Broadridge Financial Solutions, Inc. in writing at: Attn: Householding Department, 51 Mercedes Way, Edgewood, NY 11717; or by telephone: (866) 540-7095. Stockholders who currently receive multiple copies of the Proxy Availability Notice or proxy materials at their address and would like to request householding of their communications should contact their broker. In addition, we will promptly deliver, upon written or oral request to the address or telephone number above, a separate copy of the Proxy Availability Notice or proxy materials to a stockholder at a shared address to which a single copy of the documents was delivered.

Other Matters

The Board 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.

Special Note Regarding Forward-Looking Statements

This Proxy Statement and other materials we are sending you or that are available on our website in connection with the Annual Meeting (the Other Materials) contain “forward-looking statements” as defined under federal securities laws. Many of these statements can be identified by the use of terminology such as “believes,” “expects,” “intends,” “anticipates,” “plans,” “may,” “will,” “projects,” “continues,” “estimates,” “potential,” “opportunity” or the negative versions of these terms and other similar expressions. These forward-looking statements may be found in the sections of this Proxy Statement titled “Proxy Overview,” “Executive Compensation,” and other sections of this Proxy Statement, as well as the Other Materials. These forward-looking statements are based on our current expectations and assumptions, and are subject to risks and uncertainties that could cause our actual results or experience and the timing of events to differ significantly from the forward-looking statements. Factors that could cause or contribute to these differences include those discussed in the Company’s Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019 under “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in the Annual Report. You should carefully consider that information before voting.

You should not place undue reliance on these statements, which speak only as of the date that they were made. These cautionary statements should be considered in connection with any written or oral forward-looking statements that we may make in the future. We do not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect later events or circumstances or to reflect the occurrence of unanticipated events.

APPROVAL

The contents of this Proxy Statement and the sending thereof to the stockholders have been authorized by the Board.

By Order of the Board of Directors



G. Eric Davis

Executive Vice President, General Counsel and Secretary

April 23, 2019

A copy of our Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 28, 2019, is available without charge upon written request to Investor Relations, BioMarin Pharmaceutical Inc., 105 Digital Drive, Novato, CA 94949 or by accessing a copy on BioMarin’s website at www.bmrn.com in the Investors section under “Financial Information—SEC Filings.”

Appendix A

BioMarin Pharmaceutical Inc. 2017 Equity Incentive Plan, As Amended April 12, 2019

Adopted by the Compensation Committee of the Board of Directors: April 10, 2017
Approved by the Stockholders: June 6, 2017

Amended by the Compensation Committee of the Board of Directors: April 12, 2019
Amendment Approved by the Stockholders: June ____, 2019

1. General.

(a) **Successor to and Continuation of Prior Plan.** The Plan is intended as the successor to and continuation of the Company's 2006 Share Incentive Plan, as amended and restated on April 16, 2015 (the "**2006 Plan**"). From and after 12:01 a.m. Pacific Time on the Effective Date, no additional awards will be granted under the 2006 Plan. All Awards granted on or after 12:01 a.m. Pacific Time on the Effective Date will be granted under this Plan. All awards granted under the 2006 Plan or under the Company's 1997 Stock Plan or the Company's 1998 Director Option Plan (collectively, with the 2006 Plan, the "**Prior Plans**"), will remain subject to the terms of the Prior Plans.

(i) Any shares that would otherwise remain available for future grants under the 2006 Plan as of 12:01 a.m. Pacific Time on the Effective Date (the "**2006 Plan's Available Reserve**") will cease to be available under the 2006 Plan at such time. Instead, that number of shares of Common Stock equal to the 2006 Plan's Available Reserve will be added to the Share Reserve (as further described in Section 3(a) below) and will be immediately available for grants and issuance pursuant to Stock Awards hereunder, up to the maximum number set forth in Section 3(a) below.

(ii) In addition, from and after 12:01 a.m. Pacific Time on the Effective Date, any shares subject, at such time, to outstanding stock awards granted under the 2006 Plan that (i) expire or terminate for any reason prior to exercise or settlement; or (ii) are forfeited because of the failure to meet a contingency or condition required to vest such shares (such shares the "**Returning Shares**") will immediately be added to the Share Reserve (as further described in Section 3(a) below) as and when such shares become Returning Shares, up to the maximum number set forth in Section 3(a) below.

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

(c) **Available Awards.** The Plan provides for the grant of the following 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, (vii) Performance Cash Awards, and (viii) Other Stock Awards.

(d) **Purpose.** The Plan, through the grant of Awards, is intended to help the Company 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 Awards; (B) when and how each Award will be granted; (C) what type of Award will be granted; (D) the provisions of each Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Award; (E) the number of shares of Common Stock subject to, or the cash value of, an Award; and (F) the Fair Market Value applicable to a Stock Award.

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

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

(iv) To accelerate, in whole or in part, the time at which an 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 an Award Agreement, suspension or termination of the Plan will not materially impair a Participant's rights under the Participant's then-outstanding Award without the Participant's 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 bringing the Plan or Awards granted under the Plan into compliance with the requirements for Incentive Stock Options or ensuring that they are 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. If required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek shareholder 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 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, (E) materially extends the term of the Plan, or (F) materially expands the types of Awards available for issuance under the Plan. Except as otherwise provided in the Plan or an Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Award without the Participant's written consent.

(vii) To submit any amendment to the Plan for shareholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of (A) Section 162(m) of the Code regarding the exclusion of performance-based compensation from the limit on corporate deductibility of compensation paid to Covered Employees, (B) Section 422 of the Code regarding "incentive stock options" or (C) Rule 16b-3.

(viii) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion (including, without limitation, the limits set forth in Sections 8(c) and 8(m) below); *provided, however*, that a Participant's rights under any 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 Awards without the affected Participant's consent (A) to maintain the qualified status of the 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 Award solely because it impairs the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (C) to clarify the manner of exemption from, or to bring the 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 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 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 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) Section 162(m) and Rule 16b-3 Compliance. The Committee shall consist solely of two or more directors that qualify as Outside Directors, in accordance with Section 162(m) of the Code, and Non-Employee Directors, in accordance with Rule 16b-3.

(d) Delegation to an Officer. To the extent permissible under applicable law, the Board may delegate to one (1) 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 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(y)(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) No Repricing of Awards. Neither the Board nor any Committee will have the authority to (i) reduce the exercise or strike price of any outstanding Option or SAR or (ii) cancel any outstanding Option or SAR that has an exercise or strike price (per share) 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 twelve (12) months prior to such an event.

3. Shares Subject to the Plan.

(a) Share Reserve. 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 will not exceed 31,880,015 shares (the "**Share Reserve**"), which number is the sum of (i) 11,000,000 new shares, *plus* (ii) 5,250,000 shares approved by the stockholders on June 6, 2017, *plus* (iii) the number of shares subject to the 2006 Plan's Available Reserve, *plus* (iv) the number of shares that are Returning Shares, as such shares become available from time to time (in the case of (iii) and (iv), up to an aggregate maximum of 15,630,015 shares). For every one share of Common Stock that is subject to a Stock Award other than an Option or SAR, the shares available for issuance under the Plan shall be reduced by 1.92 shares. For every one share of Common Stock that is subject to an Option or SAR, the shares available for issuance under the Plan shall be reduced by one share. The issuance of Substitute Awards will not reduce the number of shares available for issuance under the Plan.

(b) Reversion of Shares to the Share Reserve.

(i) Shares Available for Subsequent Issuance. The following shares of Common Stock will become available again for issuance under the Plan: (A) any shares subject to a Stock Award that 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; (B) any shares issued pursuant to a Stock Award that 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. Any shares that again become available for issuance pursuant to this paragraph shall be added back as (a) one (1) share for every one (1) share that is subject to an Award granted under the 2006 Plan prior to May 12, 2010; (b) one (1) share for every one (1) share that is subject to an Option granted under the 2006 Plan on or after May 12, 2010; (c) 1.62 shares for every one (1) share that is subject to any Award granted under the 2006 Plan on or after May 12, 2010 and prior to May 15, 2013 other than an Option; (d) 1.92 shares for every one (1) share that is subject to any Award granted under the 2006 Plan on or after May 15, 2013 other than an Option; (e) one (1) share for every one (1) share that is subject to an Option or SAR granted under this Plan; and (f) 1.92 Shares for every one (1) share that is subject to an Award granted under this Plan other than an Option or SAR.

(ii) Shares Not Available for Subsequent Issuance. The following shares of Common Stock will not become available again for issuance under the Plan: (A) any shares that are reacquired or withheld (or not issued) by the Company to satisfy the exercise, strike or purchase price of a Stock Award granted under the Plan or a stock award granted under the Prior Plans (including any shares subject to such award that are not delivered because such award is exercised through a reduction of shares subject to such award (*i.e.*, “net exercised”)); (B) any shares that are reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with a Stock Award granted under the Plan or a stock award granted under the Prior Plans; (C) any shares repurchased by the Company on the open market with the proceeds of the exercise, strike or purchase price of a Stock Award granted under the Plan or a stock award granted under the Prior Plans; and (D) in the event that a Stock Appreciation Right granted under the Plan or a stock appreciation right granted under the Prior Plans is settled in shares of Common Stock, the gross number of shares of Common Stock subject to such award.

(c) Incentive Stock Option Limit. Subject to the provisions of 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 equal to 41,760,030.

(d) Section 162(m) Limitations. Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, at such time as the Company may be subject to the applicable provisions of Section 162(m) of the Code, the following limitations shall apply.

(i) A maximum of 1,000,000 shares of Common Stock subject to Options, SARs and Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the Fair Market Value on the date the Stock Award is granted may be granted to any one Participant during any one calendar year.

(ii) A maximum of 1,000,000 shares of Common Stock subject to Performance Stock Awards may be granted to any one Participant during any one calendar year (whether the grant, vesting or exercise is contingent upon the attainment during the Performance Period of the Performance Goals).

(iii) A maximum of \$10,000,000 may be granted as a Performance Cash Award to any one Participant during any one calendar year.

(e) Limitation on Grants to Non-Employee Directors. The (i) maximum number of shares of Common Stock subject to Stock Awards granted under the Plan or otherwise during any one calendar year (beginning with the 2018 calendar year) to any Non-Employee Director, taken together with the (ii) cash fees paid by the Company to such Non-Employee Director during such calendar year, and in both cases for service on the Board, will not exceed \$1,000,000 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), or, with respect to the calendar year in which a Non-Employee Director is first appointed or elected to the Board, \$1,500,000.

(f) 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 of the Securities Act, 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), (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from Section 409A of the Code, or (iii) the Company, in consultation with its legal counsel, has determined that such Stock Awards comply with the distribution requirements of Section 409A of the Code.

(b) Ten Percent Shareholders. A Ten Percent Shareholder 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.

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 Award Agreement will conform to (through incorporation of provisions hereof by reference in the applicable 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 Shareholders, 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 Award Agreement.

(b) **Exercise Price.** Subject to the provisions of Section 4(b) regarding Ten Percent Shareholders and except in the case of Substitute Awards, 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 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 Award if such 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 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 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 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 Appreciation Right 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 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 following restrictions on the transferability of Options and SARs will apply:

(i) Restrictions on Transfer. An Option or SAR will not be transferable except by will or by the laws of descent and distribution (or pursuant to subsections (ii) and (iii) below), and will be exercisable during the lifetime of the Participant only by the Participant. 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, on 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 Award Agreement or other agreement between the Participant and the Company, 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 Award as of the date of termination of Continuous Service) within the period of time ending on the earlier of (i) the date three months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the applicable 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 (as applicable) within the applicable time frame, the Option or SAR will terminate.

(h) Extension of Termination Date. 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, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement. In addition, unless otherwise provided in a Participant's Award Agreement, if the sale of any Common Stock received on 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 months (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 Award Agreement.

(i) Disability of Participant. 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 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 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.

(j) Death of Participant. Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, 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 Award Agreement for exercisability after the termination of the Participant's Continuous Service for a reason other than death, then the Option or SAR may be exercised (to the extent 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 the period ending on the earlier of (i) the date 12 months following the date of death (or such longer or shorter period specified in the Award Agreement), and (ii) the expiration of the term of such Option or SAR as set forth in the Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the applicable time frame, the Option or SAR (as applicable) will terminate.

(k) Termination for Cause. Except as explicitly provided otherwise in a Participant's Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option or SAR will terminate immediately upon such Participant's 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.

(l) 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 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 Award Agreement in another agreement between the Participant and the Company, or, if no such definition, in accordance with the Company'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 will deem appropriate. To the extent consistent with the Company's bylaws, at the Board's election, shares of Common Stock may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (y) 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 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 that have not vested 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.

(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 will deem 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 Awards.

(i) Performance Stock Awards. A Performance Stock Award is a Stock Award (covering a number of shares not in excess of that set forth in Section 3(d) above) that is payable (including that may be granted, may vest or may 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 Committee (or, to the extent that an Award is not intended to qualify as "performance-based compensation" under Section 162(m) of the Code, the Board or the Committee), in its sole discretion. In addition, to the extent permitted by applicable law and the applicable Award Agreement, the Board or the Committee may determine that cash may be used in payment of Performance Stock Awards.

(ii) Performance Cash Awards. A Performance Cash Award is a cash award (for a dollar value not in excess of that set forth in Section 3(d) above) that is payable contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Cash Award may also require the completion of a specified period of Continuous Service. At the time of grant of a Performance Cash Award, 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 Committee (or, to the extent that an Award is not intended to qualify as "performance-based compensation" under Section 162(m) of the Code, the Board or the Committee), in its sole discretion. The Board or the Committee may specify the form of payment of Performance Cash Awards, which may be cash or other property, or may provide for a Participant to have the option for his or her Performance Cash Award, or such portion thereof as the Board or the Committee may specify, to be paid in whole or in part in cash or other property.

(iii) Committee and Board Discretion. With respect to any Performance Stock Award or Performance Cash Award, the Committee (or, to the extent that an Award is not intended to qualify as "performance-based compensation" under Section 162(m) of the Code, the Board or the Committee) retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for a Performance

Period. 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 or the written terms of a Performance Cash Award.

(iv) Section 162(m) Compliance. Unless otherwise permitted in compliance with the requirements of Section 162(m) of the Code with respect to an Award intended to qualify as “performance-based compensation” thereunder, the Committee will establish the Performance Goals applicable to, and the formula for calculating the amount payable under, the Award no later than the earlier of (a) the date 90 days after the commencement of the applicable Performance Period, and (b) the date on which 25% of the Performance Period has elapsed, and in any event at a time when the achievement of the applicable Performance Goals remains substantially uncertain. Prior to the payment of any compensation under an Award intended to qualify as “performance-based compensation” under Section 162(m) of the Code, the Committee will certify the extent to which any Performance Goals and any other material terms under such Award have been satisfied (other than in cases where such Performance Goals relate solely to the increase in the value of the Common Stock). Notwithstanding satisfaction of, or completion of any Performance Goals, the number of shares of Common Stock, Options, cash or other benefits granted, issued, retainable and/or vested under an Award on account of satisfaction of such Performance Goals may be reduced by the Committee on the basis of such further considerations as the Committee, in its sole discretion, will determine.

(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 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 provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan, 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 Awards.

(b) Securities Law Compliance. The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be 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 an Award or the subsequent issuance of cash or Common Stock pursuant to the 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 such 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 an Award or a possible period in which the Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of an Award to the holder of such Award.

8. Miscellaneous.

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

(b) Corporate Action Constituting Grant of Awards. Corporate action constituting a grant by the Company of an 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 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 Award Agreement or related grant documents as a result of a clerical error in the papering of the Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Award Agreement or related grant documents.

(c) Shareholder 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 an Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares of Common Stock under, the Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to such Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. Nothing in the Plan, any Award Agreement or any other instrument executed thereunder or in connection with any 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 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 and any Affiliates 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 or takes an extended leave of absence) after the date of grant of any 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 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 Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the 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 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 such Participant is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the 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 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 an Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to an 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 Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding an amount of tax calculated based on the maximum statutory tax rates in a Participant's applicable tax jurisdiction (or such other amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from an 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 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 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. The Board is authorized to make deferrals of 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 an Award Agreement, the Plan and Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the 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. If the Board determines that any Award granted hereunder is not exempt from and is therefore subject to Section 409A of the Code, the Award Agreement evidencing such 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 an Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding an 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 that is due because of a "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) will be issued or paid before the 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, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

(l) Clawback/Recovery. All 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 an 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 an event constituting 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.

(m) Dividends and Dividend Equivalents. Dividends and dividend equivalents may be credited in respect of shares of Common Stock covered by a Stock Award (other than Options and Stock Appreciation Rights), as determined by the Board and contained in the applicable Award Agreement. At the sole discretion of the Board, such dividends and dividend equivalents may be converted into additional shares of Common Stock covered by the Stock Award in such manner as determined by the Board.

Any additional shares or cash payments covered by the Stock Award credited by reason of such dividends or dividend equivalents will be subject to all of the same terms and conditions of the underlying Award Agreement to which they relate. Notwithstanding anything to the contrary in this Plan or any Award Agreement, dividends and dividend equivalents shall not be paid in respect of shares of Common Stock covered by a Stock Award until such shares of Common Stock vest pursuant to the applicable Award Agreement.

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), (iii) the class(es) and maximum number of securities that may be awarded to any person pursuant to Sections 3(d), and (iv) 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. Except as otherwise provided in the Stock Award Agreement, in the event of a Dissolution 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, 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 is completed but contingent on its completion.

(c) Transactions. The following provisions shall apply to Stock Awards in the event of a Transaction unless otherwise provided in the instrument evidencing the Stock Award 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 shall 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 shareholders 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 shall determine (or, if the Board shall not determine such a date, to the date that is five 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;

(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 Common Stock in connection with the Transaction is delayed as a result of escrows, earn outs, holdbacks or 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. Plan Term; Earlier Termination or Suspension of the Plan.

The Board may suspend or terminate the Plan at any time. No Incentive Stock Options may be granted after the tenth anniversary of the earlier of (i) the date the Plan is adopted by the Board (the "**Adoption Date**"), or (ii) the date the Plan is approved by the shareholders of the Company. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated. Suspension or termination of the Plan will not impair rights and obligations under any 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. Existence of the Plan.

The Plan will become effective on the Effective Date.

12. Choice of Law.

The law 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 of the Securities Act. 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) *"Award"* means a Stock Award or a Performance Cash Award.

(c) *"Award Agreement"* means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award.

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

(e) *"Capital Stock"* means each and every class of common stock of the Company, regardless of the number of votes per share.

(f) *"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 Adoption 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.

(g) *"Cause"* shall 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 shall 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 shall have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(h) *"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 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 shareholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 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) 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 50% of the combined voting power of the voting securities of which are Owned by shareholders 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;

(iv) the complete dissolution or liquidation of the Company, except for a liquidation into a parent corporation;

(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 the Plan, 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 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.

If required for compliance with Section 409A of the Code, in no event will an event be deemed a Change in Control if such event is not also a "change in the ownership of" the Company, a "change in the effective control of" the Company or a "change in the ownership of a substantial portion of the assets of" the Company, each as determined under Treasury Regulations Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

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

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

(k) "*Common Stock*" means the common stock of the Company, having one vote per share.

(l) "*Company*" means BioMarin Pharmaceutical Inc..

(m) "*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.

(n) "*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, Consultant or Director 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. 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 an Award only to such extent as may be provided in the Company'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.

(o) **"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 or other disposition of all or substantially all, as determined by the Board, in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of more than 50% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

If required for compliance with Section 409A of the Code, in no event will an event be deemed a Corporate Transaction if such event is not also a "change in the ownership of" the Company, a "change in the effective control of" the Company or a "change in the ownership of a substantial portion of the assets of" the Company, each as determined under Treasury Regulations Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

(p) **"Covered Employee"** will have the meaning provided in Section 162(m)(3) of the Code.

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

(r) **"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.

(s) **"Dissolution"** means when the Company, after having executed a certificate of dissolution with the State of Delaware (or other applicable state), has completely wound up its affairs. Conversion of the Company into a Limited Liability Company (or any other pass-through entity) will not be considered a "Dissolution" for purposes of the Plan.

(t) **"Effective Date"** means the date of the Company shareholders approve this Plan, which is the date of the annual meeting of shareholders of the Company held on June 6, 2017, provided this Plan is approved by the Company's shareholders at such meeting.

(u) **"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.

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

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

(x) **"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 a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the shareholders 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 50% of the combined voting power of the Company's then outstanding securities.

(y) **"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.

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

(aa) **"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.

(bb) **"Nonstatutory Stock Option"** means any Option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

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

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

(ee) **"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.

(ff) **"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.

(gg) **"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).

(hh) **"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.

(ii) **"Outside Director"** means a Director who either (i) is not a current employee of the Company or an "affiliated corporation" (within the meaning of Treasury Regulations promulgated under Section 162(m) of the Code), is not a former employee of the Company or an "affiliated corporation" who receives compensation for prior services (other than benefits under a tax-qualified retirement plan) during the taxable year, has not been an officer of the Company or an "affiliated corporation," and does not receive remuneration from the Company or an "affiliated corporation," either directly or indirectly, in any capacity other than as a Director, or (ii) is otherwise considered an "outside director" for purposes of Section 162(m) of the Code.

(jj) **"Own," "Owned," "Owner," "Ownership"** means 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.

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

(II) “*Performance Cash Award*” means an award of cash granted pursuant to the terms and conditions of Section 6(c)(ii).

(mm) “*Performance Criteria*” means the one or more criteria that the Committee (or, to the extent that an Award is not intended to qualify as “performance-based compensation” under Section 162(m) of the Code, the Board or the Committee) will select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that will be used to establish such Performance Goals may be based on any one of, or combination of, the following as determined by the Committee (or Board, if applicable): (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) earnings before interest, taxes, depreciation, amortization and legal settlements; (v) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (vi) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (vii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (viii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation, other non-cash expenses and changes in deferred revenue; (ix) total shareholder return; (x) return on equity or average shareholder’s equity; (xi) return on assets, investment, or capital employed; (xii) stock price; (xiii) margin (including gross margin); (xiv) income (before or after taxes); (xv) operating income; (xvi) operating income after taxes; (xvii) pre-tax profit; (xviii) operating cash flow; (xix) sales or revenue targets; (xx) increases in revenue or product revenue; (xxi) expenses and cost reduction goals; (xxii) improvement in or attainment of working capital levels; (xxiii) economic value added (or an equivalent metric); (xxiv) market share; (xxv) cash flow; (xxvi) cash flow per share; (xxvii) cash balance; (xxviii) cash burn; (xxix) cash collections; (xxx) share price performance; (xxxi) debt reduction; (xxxii) implementation or completion of projects or processes (including, without limitation, clinical trial initiation, clinical trial enrollment and dates, clinical trial results, regulatory filing submissions, regulatory filing acceptances, regulatory or advisory committee interactions, regulatory approvals, and product supply); (xxxiii) shareholders’ equity; (xxxiv) capital expenditures; (xxxv) debt levels; (xxxvi) operating profit or net operating profit; (xxxvii) workforce diversity; (xxxviii) growth of net income or operating income; (xxxix) billings; (xl) bookings; (xli) employee retention; (xlii) initiation of studies by specific dates; (xlili) budget management; (xliv) submission to, or approval by, a regulatory body (including, but not limited to the U.S. Food and Drug Administration) of an applicable filing or a product; (xlv) regulatory milestones; (xlvi) progress of internal research or development programs; (xlvii) acquisition of new customers; (xlviii) customer retention and/or repeat order rate; (xlix) improvements in sample and test processing times; (l) progress of partnered programs; (li) partner satisfaction; (lii) timely completion of clinical trials; (liii) submission of 510(k)s or pre-market approvals and other regulatory achievements; (liv) milestones related to research development (including, but not limited to, preclinical and clinical studies), product development and manufacturing; (lv) expansion of sales in additional geographies or markets; (lvi) research progress, including the development of programs; (lvii) strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; and (lviii) and to the extent that an Award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by the Board or the Committee.

(nn) “*Performance Goals*” means, for a Performance Period, the one or more goals established by the Committee (or, to the extent that an Award is not intended to qualify as “performance-based compensation” under Section 162(m) of the Code, the Board or the Committee) 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 Committee (or, to the extent that an Award is not intended to qualify as “performance-based compensation” under Section 162(m) of the Code, the Board or the Committee) is authorized to make appropriate adjustments in the method of calculating the attainment of Performance Goals for a Performance Period as follows; *provided, however*, that to the extent that an Award is intended to qualify as “performance-based compensation” under Section 162(m) of the Code, any such adjustment may be made only if such adjustment is objectively determinable and specified in the Award Agreement at the time the Award is granted or in such other document setting forth the Performance Goals for the Award at the time the Performance Goals are established: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any items that are “unusual” in nature or occur “infrequently” as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) 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; (8) 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 shareholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company’s bonus

plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; (12) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the U.S. Food and Drug Administration or any other regulatory body; and (13) to the extent that an Award is not intended to qualify as “performance-based compensation” under Section 162(m) of the Code, to make other appropriate adjustments selected by the Board or the Committee.

(oo) “Performance Period” means the period of time selected by the Committee (or, to the extent that an Award is not intended to qualify as “performance-based compensation” under Section 162(m) of the Code, the Board or the Committee) 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 Stock Award or a Performance Cash Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Committee (or Board, if applicable).

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

(qq) “Plan” means this BioMarin Pharmaceutical Inc. 2017 Equity Incentive Plan.

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

(ss) “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.

(tt) “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).

(uu) “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.

(vv) “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.

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

(xx) “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.

(yy) “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.

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

(aaa) “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.

(bbb) “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%.

(ccc) "*Substitute Award*" means an Award issued in connection with a merger or acquisition in connection with the assumption of, or substitution for, an existing award.

(ddd) "*Ten Percent Shareholder*" 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.

(eee) "*Transaction*" means a Corporate Transaction or a Change in Control.

Appendix B

BioMarin Pharmaceutical Inc. Amended and Restated 2006 Employee Stock Purchase Plan, As Amended and Restated April 12, 2019

The following constitutes the provisions of the BioMarin Pharmaceutical Inc. Amended and Restated 2006 Employee Stock Purchase Plan of BioMarin Pharmaceutical Inc. (the "Company"), which is an amendment and restatement of the Company's 1998 Employee Stock Purchase Plan (which shall remain in full force and effect (including all Offering Periods, as defined below, in effect thereunder).

1. Purpose.

The purpose of the Plan is to provide employees of the Company and its Designated Subsidiaries with an opportunity to purchase Common Shares of the Company. It is the intention, but not the obligation, of the Company to have the Plan qualify as an "employee stock purchase plan" under Section 423 of the Code. The provisions of the Plan shall, accordingly, be construed so as to extend and limit participation in a manner consistent with the requirements of that section of the Code.

2. Definitions.

(a) "**Administrator**" means (i) any person, committee or Company department, division or function to whom the Board delegates administrative discretion under the Plan, and (ii) the Board, which may exercise any and all administrative powers associated with the Plan.

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

(c) "**Code**" means the Internal Revenue Code of 1986, as amended.

(d) "**Common Shares**" means shares of common stock, par value \$.001 per share, of the Company.

(e) "**Company**" means BioMarin Pharmaceutical Inc., a Delaware corporation.

(f) "**Compensation**" means the sums of the types and amounts of compensation determined from time to time by the Administrator in its sole discretion to be eligible to be taken into account under the Plan, provided that no such determination shall include or exclude any type or amount of compensation contrary to the requirements of Section 423 of the Code, including the equal treatment of participants having the same employer corporation.

(g) "**Continuous Status as an Employee**" means the absence of any interruption or termination of service as an Employee, Continuous Status as an Employee shall not be considered interrupted in the case of (i) sick leave; (ii) military leave; (iii) any other leave of absence approved by the Administrator, provided that such leave is for a period of not more than three months, unless reemployment upon the expiration of such leave is guaranteed by contract or statute, or unless provided otherwise pursuant to Company policy adopted from time to time; or (iv) in the case of transfers between locations of the Company or between the Company and its Designated Subsidiaries.

(h) "**Contributions**" means all amounts credited to the account of a participant pursuant to the Plan.

(i) "**Corporate Transaction**" means a sale of all or substantially all of the Company's assets, or a merger, consolidation, or other capital reorganization of the Company with or into another corporation, or any other transaction or series of related transactions in which the Company's stockholders immediately prior thereto own less than 50% of the voting shares of beneficial interest of the Company (or its successor or parent) immediately thereafter.

(j) "**Designated Subsidiaries**" means the Subsidiaries (or other entities with respect to sub-plans established under Section 19(d)) that have been designated by the Board from time to time in its sole discretion as eligible to participate in the Plan.

(k) "**Employee**" means any person, including an Officer, whom the Company or one of its Designated Subsidiaries classifies as an employee for payroll tax purposes.

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

(m) "**Non-United States Offering**" means a separate Offering Period covering eligible Employees of one or more Designated Subsidiaries, as described in Section 8(b) and 13(b).

(n) "**Offering Date**" means the first business day of each Offering Period (and shall thereby be the grant date for each Offering Period).

(o) "**Offering Period**" means a period of approximately twenty-four (24) months, commencing on the first business day on or after May 1 and November 1 of each year and terminating on the last business day of the periods ending twenty-four months later (or such other period that the Administrator may determine in its sole discretion before an Offering Date); provided that the first Offering Period under the Plan, as amended and restated herein, shall begin on May 1, 2005 and shall end on April 30, 2007.

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

(q) "**Plan**" means this Amended and Restated 2006 Employee Stock Purchase Plan.

(r) "**Purchase Date**" means the last day of each Purchase Period of the Plan, provided, however, that if such date is not a business day, the "Purchase Date" shall mean the immediately preceding business day.

(s) "**Purchase Period**" means a period of six calendar months (or such other period of up to 27 consecutive months that the Administrator may determine in its sole discretion before an Offering Date), beginning on the day after each Purchase Date and ending on the next Purchase Date, except that the first Purchase Period of any Offering Period shall commence on the Enrollment Date and end with the next Purchase Date; provided, however, that the first Purchase Period under the Plan as amended and restated shall commence on May 1, 2006.

(t) "**Purchase Price**" means with respect to a Purchase Period an amount equal to 85% of the Fair Market Value (as defined in Section 7(b)) of a Share on the Offering Date or the Purchase Date, whichever is lower; provided, however, that the Administrator may before any Offering Date establish a different formula for determining the Purchase Price so long as the formula does not result in a lower Purchase Price than is allowable under Section 423(b)(6) of the Code.

(u) "**Share**" means one Common Share, as adjusted in accordance with Section 18.

(v) "**Subsidiary**" means a corporation (or an unincorporated entity of which the Company is a co-employer of its employees), domestic or foreign, of which not less than 50% of the voting shares are held by the Company or a Subsidiary, whether or not such corporation now exists or is hereafter organized or acquired by the Company or a Subsidiary.

3. Eligibility.

(a) Any person who is an Employee as of the date two (2) months before the Offering Date of a given Offering Period shall be eligible to participate in such Offering Period, subject to the requirements of Section 5(a) and the limitations imposed by Section 423(b) of the Code.

(b) Any provisions of the Plan to the contrary notwithstanding other than Section 3(c), no Employee shall be granted an option under the Plan (i) if, immediately after the grant, such Employee (or any other person whose stock would be attributed to such Employee pursuant to Section 424(d) of the Code) would own shares of beneficial ownership of the Company and/or hold outstanding options to purchase Shares possessing five percent (5%) or more of the total combined voting power or value of all classes of Shares of the Company or shares of common stock of any Subsidiary of the Company, or (ii) if such option would permit his or her rights to purchase Shares under all employee stock purchase plans (described in Section 423 of the Code) of the Company and its Subsidiaries to accrue at a rate that exceeds Twenty-Five Thousand Dollars (\$25,000) of the Fair Market Value of such Shares (determined at the time such option is granted) for each calendar year in which such option is outstanding at any time.

(c) Employees of affiliates of the Company that are not corporate Subsidiaries, and Employees who are ineligible to participate pursuant to Section 3(b)(i) may, in the sole discretion of the Administrator, be eligible to participate in any Company sub-plan or sub-plans that the Administrator may establish in accordance with Section 19(d).

4. Offering Periods.

The Plan shall be implemented by consecutive, overlapping Offering Periods with a new Offering Period generally commencing on the first business day on or after May 1 or November 1 of each year (or on such other day as the Administrator shall determine), ending on the last day of the calendar month that is approximately twenty-four (24) months after the Purchase Period begins, and continuing thereafter until terminated in accordance with Section 20; provided, however, that the first Offering Period under the Plan shall be the Offering Period that commenced May 1, 2005. Notwithstanding any other provision in this Plan, in the event the Fair Market Value of a Share on the Offering Date of an ongoing Offering Period is greater than or equal to the Fair Market Value of a Share on the Offering Date of a newer Offering Period, then the ongoing Offering Period shall terminate and all participants (including those previously enrolled in ongoing Offering Periods) shall automatically become enrolled in the newer Offering Period. The Administrator shall have the power to change the duration and/or frequency of Offering Periods and Purchase Periods with respect to future purchases without stockholder approval, provided that the Administrator shall communicate any such change to affected participants as soon as administratively practicable prior to the scheduled beginning of the first Purchase Period to be affected.

5. Participation.

(a) An eligible Employee may become a participant in the Plan by completing a subscription agreement and/or such other enrollment forms provided by the Company (the "Subscription Materials") and submitting such Subscription Materials with the Company and/or the stock brokerage or other financial services firms designated or approved by the Administrator from time to time (each, a "Designated Broker") prior to the date set by the Administrator applicable to an Offering Date. The Subscription Materials shall set forth the percentage of the participant's Compensation (subject to Section 6(a)) to be paid as Contributions pursuant to the Plan.

(b) Payroll deductions shall commence at the start of the first applicable payroll period following the Offering Date (or on such later date as may be determined and communicated to affected participants by the Administrator) and shall end on the last payroll paid on or prior to the last Purchase Period to which the Subscription Materials is applicable, unless sooner terminated by the participant as provided in Section 10.

(c) A participant's Subscription Materials shall remain in effect for successive Purchase Periods unless modified as provided in Section 6 or terminated as provided in Section 10.

6. Method of Payment of Contributions.

(a) Subject to the limitation set forth in Section 6(c), a participant shall elect to have payroll deductions made on each payday during the Purchase Period in an amount not less than one percent (1%) nor more than ten percent (10%) of such participant's Compensation on each payday during the Offering Period. All payroll deductions made by a participant shall be credited to his or her account under the Plan. A participant may not make any additional payments into such account. A participant's election of a certain payroll deduction rate shall automatically apply to subsequent Purchase Periods and Offering Periods unless modified by the participant within such time period prior to such Purchase Periods or Offering Periods as may be determined and communicated to participants by the Administrator.

(b) A participant may discontinue his or her participation in the Plan as provided in Section 10, and may increase or decrease the rate of his or her Contributions with respect to the current Purchase Period, subsequent Purchase Periods, or a subsequent Offering Period only in accordance with rules that the Administrator establishes before the Offering begins. Any change in rate shall be effective as soon as administratively practicable.

(c) Notwithstanding the foregoing, to the extent necessary to comply with Section 423(b)(8) of the Code and Section 3(b), the Administrator may reduce a participant's payroll deductions or terminate a participant's payroll deductions during any Purchase Period scheduled to end during the current calendar year. In such case, payroll deductions shall re-commence at the beginning of the first Purchase Period that is scheduled to end in the following calendar year at the rate last elected by such participant, unless the participant has withdrawn from the Purchase Period pursuant to Section 10.

7. Grant of Option.

(a) On the Offering Date of each Offering Period, each eligible Employee participating in such Offering Period shall be granted an option to purchase on each Purchase Date for each Purchase Period within the Offering Period a number of Shares determined by dividing such Employee's Contributions accumulated during such Purchase Period and retained in the participant's account as of the Purchase Date by the applicable Purchase Price; provided however that the maximum number of Shares an Employee may purchase during each Purchase Period shall not exceed 5,000 Shares (subject to adjustment pursuant to Section 18), and provided further that such purchase shall be subject to the limitations set forth in Sections 3(b) and 12. The Board may, for future Offering Periods, increase or decrease, in its absolute discretion, the maximum number of shares of the Company's Common Stock that an eligible Employee may purchase during each Purchase Period of such Offering Period. Exercise of the option shall occur as provided in Section 8, unless the participant has withdrawn from the Purchase Period pursuant to Section 10. The option shall expire on the last day of the Offering Period.

(b) The fair market value of the Company's Common Shares on a given date (the "Fair Market Value") shall be –

(i) the closing sales price of the Common Shares for such date (or, in the event that the Common Shares are not traded on such date, on the immediately preceding trading date), as reported by the New York Stock Exchange or the American Stock Exchange, or, if such price is not reported, then on the nearest preceding trading day during which a sale occurred; or

(ii) if such stock is not traded on either exchange but is quoted on NASDAQ or a successor quotation system (A) the last sales price (if the stock is then listed as a National Market Issue under The Nasdaq National Market System or any successor system) or

(B) the mean of the bid and asked prices per-share of the Common Shares as reported by the NASDAQ or successor; or

(iii) in the event the Common Shares are not listed on a stock exchange or quoted on NASDAQ but is otherwise traded in the over-the-counter market, the Fair Market Value per share shall be the mean between the most recent representative bid and asked prices; or

(iv) if subsections (i)-(iii) do not apply, the fair market value established in good faith by the Board.

8. Exercise of Option.

(a) Unless a participant withdraws from a Purchase Period as provided in Section 10, his or her option for the purchase of Shares will be exercised automatically on each Purchase Date of a Purchase Period, and the maximum number of full Shares subject to the option will be purchased at the applicable Purchase Price with the accumulated Contributions in his or her account. No fractional Shares shall be sold or issued pursuant to the Plan. Any payroll deductions accumulated in a participant's account that are not sufficient to purchase a full Share shall be retained in the participant's account for the subsequent Purchase Period, subject to earlier withdrawal by the participant as provided in Section 10. Any other amounts left over in a participant's account after a Purchase Date shall be returned to the participant. The Shares purchased upon exercise of an option hereunder shall be deemed to be transferred to the participant on the Purchase Date. During his or her lifetime, a participant's option to purchase Shares hereunder is exercisable only by him or her.

(b) Where payroll deductions on behalf of participants who are citizens or residents of countries other than the United States (without regard to whether they are also citizens of the United States or resident aliens) are prohibited by applicable law, the Administrator may establish a Non-United States Offering covering all eligible Employees of one or more Designated Subsidiaries subject to such prohibition on payroll deductions. The Non-United States Offering shall provide another method for payment of the Purchase Price with such terms and conditions as shall be administratively convenient and comply with applicable law. On each Purchase Date of the Offering Period applicable to a Non-United States Offering, each participant who has not withdrawn from the Purchase Period pursuant to Section 10 and whose participation in such Offering Period has not otherwise terminated before such Purchase Date shall automatically acquire pursuant to the exercise of the participant's option a number of whole Shares determined in accordance with Section 8(a) to the extent of the total amount of the participant's plan account balance accumulated during the Offering Period in accordance with the method established by the Administrator and not previously applied toward the purchase of Shares. However, in no event shall the number of Shares purchased by a participant during such Offering Period exceed the number of Shares subject to the participant's option. The Company shall return to a participant in a Non-United States Offering in accordance with Section 8(a) any excess payroll deductions received from such participant.

9. Delivery.

As promptly as practicable after each Purchase Date of each Purchase Period, the number of Shares purchased by each participant upon exercise of his or her option shall be deposited into an account established in the participant's name with a Designated Broker.

10. Voluntary Withdrawal; Termination of Employment.

(a) Subject to applicable securities law restrictions (e.g., the Company's insider trading policy), a participant may withdraw all but not less than all the Contributions credited to his or her account under the Plan at any time prior to each Purchase Date by giving the Company or the Designated Broker a notice of withdrawal in the form or manner designated by the Company or the Designated Broker (the "Notice of Withdrawal") prior to the date determined and communicated by the Administrator. All of the participant's Contributions credited to his or her account will be paid to him or her promptly after receipt of his or her Notice of Withdrawal, no further Contributions for the purchase of Shares will be made during such Purchase Period, and his or her option will be automatically terminated.

(b) Upon termination of the participant's Continuous Status as an Employee prior to the Purchase Date of a Purchase Period for any reason, including retirement or death, the Contributions credited to his or her account will be returned to him or her or, in the case of his or her death, to the person or persons entitled thereto under Section 14, and his or her option will be automatically terminated.

(c) In the event an Employee fails to remain in Continuous Status as an Employee of the Company during the Purchase Period in which the employee is a participant, he or she will be deemed to have elected to withdraw from such Purchase Period and the Contributions credited to his or her account will be returned to him or her and his or her option will be automatically terminated.

(d) If a participant withdraws from a Purchase Period, the participant may enroll as a new participant in a subsequent Offering Period for which such participant is otherwise eligible by completing and submitting Subscription Materials pursuant to Section 5(a).

11. Interest.

No interest shall accrue on the Contributions of a participant in the Plan.

12. Shares.

(a) Subject to Section 18, the maximum number of Shares that participants may purchase pursuant to the Plan for Offering Periods beginning after on or after May 1, 2005 shall be seven million (7,000,000) Shares. The Shares that participants purchase pursuant to the Plan shall be newly-issued Shares, treasury Shares, or Shares purchased by the Designated Broker on the open market provided, however, that no more than seven million (7,000,000) Shares, (as adjusted pursuant to Section 18) shall be purchased pursuant to options under the Plan. In the latter case, to the extent the Purchase Price for Shares is below their Fair Market Value for any Purchase Period, the Company shall pay the Designated Broker such amounts as are necessary to subsidize the Purchase Price for Shares purchased on the open market.

(b) The participant shall have no interest (including no right to receive any dividends) or voting right in Shares covered by his or her option until such option has been exercised.

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

13. Administration.

(a) The Administrator shall supervise and administer the Plan, and shall have full and exclusive discretionary authority to construe, interpret, and apply the terms of the Plan, to determine eligibility, to adjudicate all disputed claims under the Plan, to adopt, amend and rescind any rules deemed appropriate for the administration of the Plan, and to make all other determinations necessary or advisable for the administration of the Plan. Every finding, decision, and determination made by the Administrator shall, to the full extent permitted by law, be final and binding upon all parties. No person acting individually or jointly as the Administrator shall be liable for any action or determination made in good faith with respect to the Plan or any participant.

(b) The Administrator shall have the power, in its discretion, to adopt one or more sub-plans of the Plan as the Administrator deems necessary or desirable to comply with the laws or regulations, tax policy, accounting principles or custom of foreign jurisdictions applicable to employees of a Subsidiary business entity of the Company, provided that any such sub-plan shall not be within the scope of an “employee stock purchase plan” within the meaning of Section 423 of the Code. Any of the provisions of any such sub-plan may supersede the provisions of this Plan, other than Section 12. Except as superseded by the provisions of a sub-plan, the provisions of this Plan shall govern such sub-plan. Alternatively and in order to comply with the laws of a foreign jurisdiction, the Administrator shall have the power, in its discretion, to grant options to citizens or residents of a non-U.S. jurisdiction (without regard to whether they are also citizens of the United States or resident aliens) that provide terms which are less favorable than or different from the terms of an option granted under the same Offering Period to Employees resident in the United States.

(c) Power to Establish Separate Offerings with Varying Terms. The Administrator shall have the power, in its discretion, to establish separate, simultaneous or overlapping Offering Periods having different terms and conditions and to designate the Designated Subsidiary or Subsidiaries that may participate in a particular Offering Period, provided that each Offering Period shall individually comply with the terms of the Plan and the requirements of Section 423(b)(5) of the Code that all participants granted options pursuant to such Offering Period shall have the same rights and privileges within the meaning of such section.

14. Designation of Beneficiary.

(a) A participant may designate a beneficiary who is to receive any Shares and cash, if any, from the participant’s account under the Plan in the event of such participant’s death subsequent to the end of a Purchase Period but prior to delivery to him or her of such Shares and cash. In addition, a participant may designate a beneficiary who is to receive any cash from the Participant’s account under the Plan in the event of such participant’s death prior to the Purchase Date. If a participant is married and the designated beneficiary is not the spouse, spousal consent shall be required for such designation to be effective. Beneficiary designations under this Section 14(a) shall be made in the form and in the manner as directed by the Company.

(b) Such designation of beneficiary may be changed by the participant (and his or her spouse, if any) at any time by written notice in accordance with Section 14(a). In the event of the death of a participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such participant’s death, the Company shall deliver such Shares and/or cash to the executor or administrator of the estate of the participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such Shares and/or cash to the spouse or to any one or more dependents or relatives of the participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

15. Transferability.

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

16. Use of Funds.

All Contributions received or held by the Company under the Plan may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such Contributions.

17. Reports.

Individual recordkeeping accounts will be maintained for each participant in the Plan. Statements of account will be provided to participating Employees at least annually by the Designated Broker, which statements will set forth the amounts of Contributions, the per Share Purchase Price, the number of Shares purchased, and the remaining cash balance, if any.

18. Adjustments Upon Corporate Transactions.

(a) In the event of a proposed dissolution or liquidation of the Company, any Purchase Period then in progress will terminate immediately prior to the consummation of such action, unless otherwise provided by the Board. In the event of a Corporate Transaction, each option outstanding under the Plan shall be assumed or an equivalent option shall be substituted by the successor corporation or a parent or Subsidiary of such successor corporation. In the event that the successor corporation refuses to assume or substitute for outstanding options, each Purchase Period then in progress shall be shortened and a new Purchase Date shall be set (the "New Purchase Date"), as of which date any Purchase Period then in progress will terminate. The New Purchase Date shall be on or before the date of consummation of the transaction and the Board shall provide reasonable notice to each participant in writing prior to the New Purchase Date, that the Purchase Date for his or her option has been changed to the New Purchase Date and that his or her option will be exercised automatically on the New Purchase Date, unless prior to such date he or she has withdrawn from the Purchase Period as provided in Section 10.

(b) For purposes of this Section 18, an option granted under the Plan shall be deemed to be assumed, without limitation, if, at the time of issuance of the stock or other consideration upon a Corporate Transaction, each holder of an option under the Plan would be entitled to receive upon exercise of the option the same number and kind of shares of stock or the same amount of property, cash or securities as such holder would have been entitled to receive upon the occurrence of the transaction if the holder had been, immediately prior to the transaction, the holder of the number of Shares covered by the option at such time (after giving effect to any adjustments in the number of Shares covered by the option as provided for in this Section 18); provided, however, that if the consideration received in the transaction is not solely common stock of the successor corporation or its parent (as defined in Section 424(e) of the Code), the Board may, with the consent of the successor corporation, provide for the consideration to be received upon exercise of the option to be solely common stock of the successor corporation or its parent equal in Fair Market Value to the per Share consideration received by holders of Common Shares in the transaction.

(c) The Administrator shall equitably adjust the number of Shares covered by each outstanding option, and the number of Shares that may be purchased pursuant to options under the Plan, as well as the price per Share covered by each such outstanding option, to reflect any increase or decrease in the number of issued Shares resulting from a stock-split, reverse stock-split, stock dividend, combination, recapitalization or reclassification of the Shares, or any other increase or decrease in the number of issued Shares effected without receipt of consideration by the Company. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be required to be made with respect to, the number or price of Shares subject to any option.

19. Amendment or Termination.

(a) The Board may at any time and for any reason terminate or amend the Plan. Except as provided in Section 18, no such termination of the Plan may affect options previously granted, provided that the Plan or a Purchase Period may be terminated by the Board on a Purchase Date or by the Board's setting a new Purchase Date with respect to a Purchase Period then in progress if the Board determines that termination of the Plan and/or the Purchase Period is in the best interests of the Company and the stockholders, or if continuation of the Plan and/or the Purchase Period would cause the Company to incur adverse accounting charges as a result of a change after the effective date of the Plan in the generally accepted accounting rules applicable to the Plan. Except as provided in Section 18 and in this Section 19, no amendment to the Plan shall make any change in any option previously granted that adversely affects the rights of any participant. In addition, to the extent the Administrator considers it appropriate to conform the Plan with Rule 16b-3 under the Exchange Act, Section 423 of the Code, or any other applicable law, regulation, or stock exchange rule, the Company shall obtain stockholder approval in such a manner and to such a degree as so required.

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

(c) The Company may adopt rules or procedures relating to the operation and administration of the Plan to accommodate the specific requirements of local laws and procedures. Without limiting the generality of the foregoing, the Company specifically authorizes the Administrator to adopt rules and procedures regarding handling of payroll deductions, payment of interest, conversion of local currency, payroll tax, withholding procedures and handling of stock certificates which vary with local requirements.

(d) The Administrator may also adopt sub-plans applicable to the Company or to particular Subsidiaries, or locations, which sub-plans may be designed to be outside the scope of Section 423 of the Code. The rules of such sub-plans may take precedence over other provisions of this Plan, but unless otherwise superseded by the specific terms of such sub-plan, the provisions of this Plan shall govern the operation of such sub-plan. In addition, the Administrator may adopt rules or procedures relating to the operation and administration of the Plan to accommodate the specific requirements of local laws and procedures. Without limiting the generality of the foregoing, the Company is specifically authorized to adopt rules and procedures regarding handling of payroll deductions, payment of interest, conversion of local currency, payroll tax, withholding procedures and handling of stock certificates which vary with local requirements.

20. Notices.

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

21. Conditions Upon Issuance of Shares.

Shares shall not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such Shares pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, applicable state securities laws, and the requirements of any stock exchange upon which the Shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

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

22. Term of Plan; Effective Date.

The Plan, as amended and restated herein, shall become effective on April 12, 2019, provided that the effectiveness of the Plan, as amended and restated herein, shall be contingent on the Company's receipt of approval in by a vote of a majority of the votes cast at a duly held meeting of the Company's stockholders (or by such other stockholder vote that the Administrator determines to be sufficient for the issuance of Shares or stock options according to the Company's governing documents and applicable state law). The Plan shall continue in effect until terminated under Section 19. In the event that the Plan, as amended and restated herein, does not receive stockholder approval, then the Plan, as amended and restated herein, shall not become effective and the Plan as in effect prior to this amendment and restatement will continue in full force and effect and continue to apply to ongoing Offering Periods that were in effect prior to the Plan's termination on May 2, 2018.

23. Additional Restrictions of Rule 16b-3.

The terms and conditions of options granted hereunder to, and the purchase of Shares by, persons subject to Section 16 of the Exchange Act shall comply with the applicable provisions of Rule 16b-3. This Plan shall be deemed to contain, and such options shall contain, and the Shares issued upon exercise thereof shall be subject to, such additional conditions and restrictions as may be required by Rule 16b-3 to qualify for the maximum exemption from Section 16 of the Exchange Act with respect to Plan transactions.

24. Notice of Disqualifying Dispositions.

By electing to participate in the Plan, each participant agrees to notify the Company in writing immediately after the participant sells, transfers or otherwise disposes of any Shares acquired under the Plan, if such disposition occurs within the earlier of (i) two (2) years of the Offering Date, or (ii) one (1) year of the Purchase Date, associated with such Shares. Each participant further agrees to provide any information about a disposition of Shares as may be requested by the Company to assist it in complying with any applicable tax laws.

25. Withholding of Taxes.

Each participant must make adequate provision for all applicable federal, state, or other tax withholding obligations which may arise upon the exercise of any option or the disposition of any Shares.

26. No Employment Rights.

The Plan does not create, directly or indirectly, any right for the benefit of any employee or class of employees to purchase any Shares from the Company (other than as expressly provided in, and subject to the terms and conditions of, the Plan), or create in any employee or class of employees any right with respect to continuation of employment by the Company or any Subsidiary, and it shall not be deemed to interfere in any way with the Company's or any Subsidiary's right to terminate, or otherwise modify, an employee's employment at any time.

27. Offsets.

To the extent permitted by law, the Company shall have the absolute right to withhold any amounts payable to any participant under the terms of the Plan to the extent of any amount owed for any reason by such participant to the Company or any Subsidiary and to set off and apply the amounts so withheld to payment of any such amount owed to the Company or any Subsidiary, whether or not such amount shall then be immediately due and payable and in such order or priority as among such amounts owed as the Board or its committee, in its sole discretion, shall determine.

28. Captions.

The captions of the sections and paragraphs of this Plan have been inserted solely as a matter of convenience and in no way define or limit the scope or intent of any provision of the Plan. References to sections herein are to the specified sections of this Plan unless another reference is specifically stated. Wherever used herein, a singular number shall be deemed to include the plural unless a different meaning is required by the context.

29. Governing Law.

The internal laws of the State of Delaware shall govern all matters relating to this Plan except to the extent superseded by the laws of the United States.

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