



June 24, 2020

Dear Pacific Biosciences of California, Inc. Stockholder:

You are cordially invited to attend our 2020 Annual Meeting of Stockholders including any adjournments and postponements thereof (the “Annual Meeting”), which will be held virtually on Tuesday, August 4, 2020 at 9:00 a.m. Pacific Time on the internet at www.meetingcenter.io/296173096. To access the virtual meeting, please have your notice or proxy card in hand when you visit the website. The password for this virtual meeting is – PACB2020.

During the Annual Meeting, stockholders will be asked to vote on the proposals set forth in the Notice of Annual Meeting of Stockholders and as more fully described in the accompanying proxy statement.

It is important that your shares are represented and voted at the Annual Meeting. Whether or not you plan to attend, please ensure your representation at the Annual Meeting by voting as soon as possible. We urge you to review carefully the proxy materials and to vote:

- “FOR” each of the three nominees for our Class I directors;
- “FOR” the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020;
- “FOR” the advisory approval of our executive compensation; and
- “FOR” the 2020 Equity Incentive Plan.

Thank you for your continued support of Pacific Biosciences.

Sincerely,

Michael Hunkapiller, Ph.D.
President and Chief Executive Officer

PACIFIC BIOSCIENCES OF CALIFORNIA, INC.
NOTICE OF 2020 ANNUAL MEETING OF STOCKHOLDERS
To Be Held on August 4, 2020
9:00 a.m. Pacific Time

Pacific Biosciences of California, Inc.'s 2020 Annual Meeting of Stockholders will be held virtually on Thursday, August 4, 2020 at 9:00 a.m. Pacific Time online via live webcast. You will be able to attend and participate in the Annual Meeting online, vote your shares electronically and submit your questions prior to and during the meeting by visiting: www.meetingcenter.io/296173096. To access the virtual meeting, please have your notice or proxy card in hand when you visit the website. The password for this virtual meeting is – PACB2020.

During the Annual Meeting, our stockholders will be asked:

- To elect each of the three Class I directors nominated by our Board of Directors and named in this Proxy Statement to serve for a three-year term and until their successors are duly elected and qualified;
- To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020;
- To approve, on an advisory basis, the compensation of the Company's named executive officers;
- To approve the 2020 Equity Incentive Plan; and
- To transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof.

Stockholders of record who owned shares of our common stock at 5:00 p.m. Pacific Time on June 15, 2020 are entitled to receive notice of, attend, and vote at the Annual Meeting. A complete list of these stockholders will be available at our corporate offices at 1305 O'Brien Drive, Menlo Park, California 94025 during regular business hours for ten days prior to the Annual Meeting. This list also will be available during the Annual Meeting on the virtual meeting website during the meeting. A stockholder may examine the list for any legally valid purpose related to the Annual Meeting.

We are furnishing proxy materials to stockholders primarily over the internet. We believe that this process expedites stockholders' receipt of proxy materials, lowers the costs of the Annual Meeting and conserves natural resources. On or about June 24, 2020, we expect to mail to our stockholders a Notice of Internet Availability of Proxy Materials (the "Notice") containing instructions on how to access our proxy statement for the Annual Meeting and Annual Report on Form 10-K for the fiscal year ended December 31, 2019 ("Annual Report"). This Notice provides instructions on how to vote online or by telephone and includes instructions on how to receive a paper copy of proxy materials by mail. We also include in the Notice instructions on how you can request a paper copy of the proxy materials.

YOUR VOTE IS IMPORTANT. Whether or not you plan to attend the Annual Meeting, please submit your vote via the internet, telephone or mail as soon as possible. For stockholders who have previously sent in proxies, we ask that you submit new proxies in advance of the Annual Meeting.

By Order of the Board of Directors,



Brett Atkins, J.D., Ph.D.
General Counsel and Corporate Secretary

Menlo Park, California
June 24, 2020

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PACIFIC BIOSCIENCES OF CALIFORNIA, INC.
1305 O'Brien Drive,
Menlo Park, California 94025

PROXY STATEMENT
FOR THE ANNUAL MEETING OF STOCKHOLDERS
To Be Held on August 4, 2020

GENERAL INFORMATION

We are furnishing you with these proxy materials in connection with the solicitation by the Board of Directors of Pacific Biosciences of California, Inc. of proxies to be used at our 2020 Annual Meeting of Stockholders (the "Annual Meeting"). The Annual Meeting will be held virtually on August 4, 2020 at 9:00 a.m. Pacific Time on the internet at www.meetingcenter.io/296173096. You will be able to attend and participate in the Annual Meeting online, vote your shares electronically and submit your questions prior to and during the meeting. To access the virtual meeting, please have your notice or proxy card in hand when you visit the website. The password for this virtual meeting is – PACB2020.

This Proxy Statement contains important information regarding our virtual Annual Meeting, the proposals on which you are being asked to vote, information you may find useful in determining how to vote, and information about voting procedures. As used herein, "we," "us," "our," "Pacific Biosciences" or the "Company" refer to Pacific Biosciences of California, Inc., a Delaware corporation.

The information provided in the "question and answer" format below is for your convenience only and is merely a summary of the information contained in this Proxy Statement. You should read this entire Proxy Statement carefully. Information contained on, or that can be accessed through, our website is not intended to be incorporated by reference into this Proxy Statement and references to our website address in this Proxy Statement are inactive textual references only.

QUESTIONS AND ANSWERS ABOUT THE ANNUAL MEETING AND THESE PROXY MATERIALS

What matters will be voted on at the Virtual Annual Meeting?

The following matters will be voted on at the Virtual Annual Meeting:

- Proposal 1: The election of the each of the three Class I directors nominated by our Board of Directors and named in this Proxy Statement to serve for a three-year term and until their successors are duly elected and qualified;
- Proposal 2: The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020;
- Proposal 3: To approve, on an advisory basis, the compensation of the Company's named executive officers;
- Proposal 4: To approve the 2020 Equity Incentive Plan; and
- To transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof.

How does the Board of Directors recommend that I vote?

Our Board of Directors recommends that you vote:

- "FOR" each of the three nominees for our Class I directors;

- “FOR” the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020;
- “FOR” the advisory approval of our executive compensation; and
- “FOR” the 2020 Equity Incentive Plan.

Will there be any other items of business on the agenda?

If any other items of business or other matters are properly brought before the virtual Annual Meeting, your proxy gives discretionary authority to the persons named on the proxy card with respect to those items of business or other matters. The persons named on the proxy card intend to vote the proxy in accordance with their best judgment. Our Board of Directors does not intend to bring any other matters to be voted on at the virtual Annual Meeting. We are not currently aware of any other matters that may properly be presented by others for action at the virtual Annual Meeting.

Who is entitled to vote at the Virtual Annual Meeting?

Holders of our common stock at 5:00 p.m. Pacific Time on June 15, 2020, which we refer to as the record date, may vote at the virtual Annual Meeting. Each stockholder is entitled to one vote for each share of our common stock held as of the record date.

A complete list of these stockholders will be available at our corporate offices at 1305 O’Brien Drive, Menlo Park, California 94025 during regular business hours for the ten days prior to the virtual Annual Meeting. This list also will be available during the Annual Meeting on the virtual meeting website during the meeting. A stockholder may examine the list for any legally valid purpose related to the virtual Annual Meeting.

What is the difference between holding shares as a stockholder of record and as a beneficial owner?

Stockholders of Record. You are a stockholder of record if at 5:00 p.m. Pacific Time on the record date your shares were registered directly in your name with Computershare Trust Company, N.A., our transfer agent.

Beneficial Owner. You are a beneficial owner if at 5:00 p.m. Pacific Time on the record date your shares were held by a brokerage firm, bank or other nominee and not in your name. Being a beneficial owner means that, like many of our stockholders, your shares are held in “street name.” As the beneficial owner, you have the right to direct your broker, bank or nominee how to vote your shares by following the voting instructions your broker, bank or other nominee provides. If you do not provide your broker, bank or nominee with instructions on how to vote your shares, your broker, bank or nominee will not be able to vote your shares with respect to the proposals. Please see “*What if I do not specify how my shares are to be voted?*” for more information.

Why did I receive a Notice of Internet Availability of Proxy Materials instead of a full set of proxy materials?

In accordance with the rules of the SEC, we have elected to furnish our proxy materials, including this proxy statement and the Annual Report primarily via the internet. The Notice containing instructions on how to access our proxy materials is first being mailed on or about June 24, 2020 to all stockholders entitled to vote at the virtual Annual Meeting. Stockholders may request to receive all future proxy materials in printed form by mail or electronically by e-mail by following the instructions contained in the Notice. We encourage stockholders to take advantage of the availability of our proxy materials on the internet to help reduce the environmental impact of our annual meetings of stockholders.

How can I attend the Annual Meeting?

The Annual Meeting will be a completely virtual meeting of stockholders, which will be conducted exclusively by webcast. You are entitled to participate in the Annual Meeting only if you were a stockholder of

the Company as of the close of business on the record date, June 15, 2020, or if you hold a valid proxy for the Annual Meeting. No physical meeting will be held.

You will be able to attend the Annual Meeting online and submit your questions during the meeting by visiting www.meetingcenter.io/296173096. You also will be able to vote your shares online by attending the Annual Meeting by webcast.

To participate in the Annual Meeting, you will need to review the information included on your Notice, on your proxy card or on the instructions that accompanied your proxy materials. The password for the meeting is PACB2020.

If you hold your shares through an intermediary, such as a bank or broker, you must register in advance using the instructions below.

The online meeting will begin promptly at 9:00 a.m., Pacific Time on August 4, 2020. We encourage you to access the meeting prior to the start time leaving ample time for the check in. Please follow the registration instructions as outlined in this proxy statement.

How do I register to attend the Annual Meeting virtually on the Internet?

If you are a registered stockholder (i.e., you hold your shares through our transfer agent, Computershare), you do not need to register to attend the Annual Meeting virtually on the internet. Please follow the instructions on the notice or proxy card that you received.

If you hold your shares through an intermediary, such as a bank or broker, you must register in advance to attend the Annual Meeting virtually on the internet.

To register to attend the Annual Meeting online by webcast you must submit proof of your proxy power (legal proxy) reflecting your Company holdings along with your name and email address to Computershare. Requests for registration must be labeled as “Legal Proxy” and be received no later than 5:00 p.m., Eastern Time, on July 30, 2020.

You will receive a confirmation of your registration by email after we receive your registration materials.

Requests for registration should be directed to us at the following:

By email:

Forward the email from your broker, or attach an image of your legal proxy, to legalproxy@computershare.com

By mail:

Computershare
Pacific Biosciences of California, Inc. Legal Proxy
P.O. Box 43001
Providence, RI 02940-3001

Do I have to do anything in advance if I plan to attend the Virtual Annual Meeting?

If you are a stockholder of record, you do not need to do anything in advance to attend or vote your shares electronically at the virtual Annual Meeting. If you are a beneficial owner, you must bring a legal proxy from the organization that holds your shares in order to vote your shares electronically at the virtual Annual Meeting.

Why would you hold a virtual Annual Meeting?

We decided to hold a virtual meeting this year because of the public health risks associated with gathering our management, directors and stockholders for an in-person meeting during the COVID-19 pandemic. We believe this format would also allow for greater participation of our stockholders, particularly since our stockholders' travel may be restricted due to coronavirus. Also, our stockholders would maintain the same rights as they would have at an in-person meeting since they will have the opportunity to ask questions online.

How do I ask questions during a virtual Annual Meeting?

Because the Annual Meeting is held virtually, you will be able to attend the Annual Meeting online and submit your questions during the meeting and entering your control number included on your proxy card or on the instructions that accompanied your proxy materials. Questions pertinent to meeting matters will be answered during the meeting, subject to time constraints. Questions regarding personal matters are not pertinent to meeting matters and therefore will not be answered.

How do I vote and what are the voting deadlines?

Stockholders of Record. If you are a stockholder of record, there are several ways for you to vote your shares:

- **By mail.** If you received printed proxy materials, you may submit your vote by completing, signing and dating each proxy card received and returning it in the prepaid envelope. Sign your name exactly as it appears on the proxy card. Proxy cards submitted by mail must be received no later than August 3, 2020 to be voted at the virtual Annual Meeting.
- **By telephone or via the internet.** You may vote your shares by telephone at 1-800-652-8683 or via the internet at www.investorvote.com/PACB by following the instructions provided in the proxy card. If you vote by telephone or via the internet, you do not need to return a proxy card by mail. Internet and telephone voting are available 24 hours a day. Votes submitted by telephone or via the internet must be received by 11:59 p.m. Eastern Time on August 3, 2020.
- **Electronically at the virtual Annual Meeting.** You may vote your shares electronically at the virtual Annual Meeting. Even if you plan to attend the virtual Annual Meeting, we recommend that you also submit your proxy card or voting instructions or vote by telephone or via the internet by the applicable deadline so that your vote will be counted if you later decide not to attend the virtual Annual Meeting.

Beneficial Owners. If you are a beneficial owner of your shares, you should have received the proxy materials and voting instructions from the broker, bank or other nominee holding your shares. You should follow the voting instructions provided by your broker, bank or nominee in order to instruct your broker, bank or other nominee on how to vote your shares. The availability of telephone and internet voting will depend on the voting process of the broker, bank or nominee. Shares held beneficially may be voted electronically at the virtual Annual Meeting only if you obtain a legal proxy from the broker, bank or nominee giving you the right to vote the shares.

Whether or not you plan to attend the virtual Annual Meeting, we urge you to vote by proxy to ensure your vote is counted. **For stockholders who have previously sent in proxies, we ask that you submit new proxies in advance of the Annual Meeting.**

Can I revoke or change my vote after I submit my proxy?

Stockholders of Record. If you are a stockholder of record, you may revoke your proxy at any time before it is voted at the virtual Annual meeting by:

- Signing and returning a new proxy card with a later date;
- Entering a new vote by telephone or via the internet by 11:59 p.m. Eastern Time on August 3, 2020;

- Delivering a written revocation to our Corporate Secretary at Pacific Biosciences of California, Inc., 1305 O'Brien Drive, Menlo Park, California 94025, by 11:59 p.m. Eastern Time on August 3, 2020; or
- Attending the virtual Annual Meeting and voting electronically.

Beneficial Owners. If you are a beneficial owner of your shares, you must contact the broker, bank or other nominee holding your shares and follow their instructions for changing your vote.

What is the effect of giving a proxy?

Proxies are solicited by and on behalf of our Board of Directors. Michael Hunkapiller, Susan K. Barnes and Brett Atkins have been designated as proxies by our Board of Directors. When proxies are properly dated, executed and returned, the shares represented by such proxies will be voted at the virtual Annual Meeting in accordance with the instructions of the stockholder. If no specific instructions are given, however, the shares will be voted in accordance with the recommendations of our Board of Directors. If any matters not described in this proxy statement are properly presented at the virtual Annual Meeting, the proxy holders will use their own judgment to determine how to vote the shares. If the virtual Annual Meeting is adjourned, the proxy holders can vote the shares on the new Annual Meeting date as well, unless you have properly revoked your proxy instructions, as described above.

For stockholders who have previously sent in proxies, we ask that you submit new proxies in advance of the Annual Meeting.

What if I do not specify how my shares are to be voted?

Stockholders of Record. If you are a stockholder of record and you submit a proxy, but you do not provide voting instructions, your shares will be voted:

- “FOR” each of the three nominees for our Class I directors (Proposal 1);
- “FOR” the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020 (Proposal 2);
- “FOR” the advisory approval of our executive compensation (Proposal 3); and
- “FOR” the 2020 Equity Incentive Plan (Proposal 4).
- In the discretion of the named proxies regarding any other matters properly presented for a vote at the Annual Meeting.

Beneficial Owners. If you are a beneficial owner and you do not provide the broker, bank or other nominee that holds your shares with voting instructions, the broker, bank or other nominee will determine if it has the discretionary authority to vote on the particular matter. Under the rules of The Nasdaq Stock Market, brokers, banks and other nominees do not have discretion to vote on non-routine matters such as Proposal 1. Therefore, if you do not provide voting instructions to your broker, bank or other nominee, your broker, bank or other nominee may not vote your shares on Proposal 1.

What constitutes a quorum, and why is a quorum required?

We need a quorum of stockholders to hold our virtual Annual Meeting. A quorum exists when at least a majority of the outstanding shares entitled to vote at 5:00 p.m. Pacific Time on the record date are represented at the virtual Annual Meeting either remotely or by proxy. As of 5:00 p.m. Pacific Time on June 15, 2020, we had 154,311,164 shares of common stock outstanding and entitled to vote at the virtual Annual Meeting, meaning that 77,155,582 shares of common stock must be represented remotely or by proxy to constitute a quorum.

Your shares will be counted towards the quorum if you submit a proxy or vote at the virtual Annual Meeting. Abstentions and broker non-votes will also count towards the quorum requirement. If there is not a quorum, a majority of the shares present at the virtual Annual Meeting may adjourn the meeting to a later date.

What is the effect of a broker non-vote?

Brokers, banks or other nominees who hold shares of our common stock for a beneficial owner have the discretion to vote on routine proposals when they have not received voting instructions from the beneficial owner at least ten days prior to the Annual Meeting. A broker non-vote occurs when a broker, bank or other nominee does not receive voting instructions from the beneficial owner and does not have the discretion to direct the voting of the shares. Broker non-votes will be counted for purposes of calculating whether a quorum is present at the virtual Annual Meeting, but will not be counted for purposes of determining the number of votes present remotely or represented by proxy and entitled to vote with respect to a particular proposal.

Thus, a broker non-vote will not impact our ability to obtain a quorum and will not otherwise affect the outcome of the vote on a proposal that requires a plurality of votes cast or the approval of a majority of the votes present remotely or represented by proxy and entitled to vote (Proposals 1, 2, 3 and 4).

What is the vote required for each proposal?

Proposal	Vote Required	Broker Discretionary Voting Allowed
Proposal 1—Election of three Class I directors	Majority of the shares entitled to vote and present remotely or represented by proxy	No
Proposal 2—Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm	Majority of the shares entitled to vote and present remotely or represented by proxy	Yes
Proposal 3—Non-binding Advisory approval of our executive compensation	Majority of the shares entitled to vote and present remotely or represented by proxy	No
Proposal 4—Approve 2020 Equity Incentive Plan	Majority of the shares entitled to vote and present remotely or represented by proxy	No

With respect to Proposal 1, you may vote FOR a nominee, AGAINST a nominee, or ABSTAIN from voting on a nominee. A nominee will be elected if the votes cast for such nominee’s election exceed the votes cast against such nominee’s election. You may not cumulate votes in the election of directors. If you ABSTAIN from voting on a nominee, the abstention will not be counted as a vote “FOR” or “AGAINST” such nominee’s election and will not have an effect on the outcome of the vote.

With respect to Proposals 2, 3 and 4, you may vote FOR, AGAINST or ABSTAIN. If you ABSTAIN from voting on these proposals, the abstention will have the same effect as a vote AGAINST Proposal 2, 3 and 4.

Who will count the votes?

Computershare Trust Company, N.A., our transfer agent, has been engaged to receive and tabulate stockholder votes. Computershare will separately tabulate FOR and AGAINST votes, abstentions, and broker non-votes. Computershare will also certify the election results and perform any other acts required by the Delaware General Corporation Law.

Who is paying for the costs of this proxy solicitation?

We will bear the entire cost of proxy solicitation, including the preparation, assembly, printing, mailing and distribution of the proxy materials. Solicitations may be made personally or by mail, facsimile, telephone, messenger, or via the internet by our personnel who will not receive additional compensation for such solicitation. In addition, we will reimburse brokerage firms and other custodians for their reasonable out-of-pocket expenses for forwarding the proxy materials to stockholders.

How can I find the results of the Virtual Annual Meeting?

Preliminary results will be announced at the virtual Annual Meeting. Final results also will be published in a Current Report on Form 8-K to be filed with the SEC after the virtual Annual Meeting.

I share an address with another stockholder, and we received only one paper copy of the proxy materials. How may I obtain an additional copy of the proxy materials?

The SEC has adopted rules that allow a company to deliver a single proxy statement or annual report to an address shared by two or more of its stockholders. This method of delivery, known as “householding,” permits us to realize significant cost savings, reduces the amount of duplicate information stockholders receive, and reduces the environmental impact of printing and mailing documents to our stockholders. Under this process, certain stockholders will receive only one copy of our proxy materials and any additional proxy materials that are delivered until such time as one or more of these stockholders notifies us that they want to receive separate copies. Any stockholders who object to or wish to begin householding may notify our Investor Relations Department at ir@pacificbiosciences.com, 650-521-8450 or Investor Relations, Pacific Biosciences of California, Inc., 1305 O’Brien Drive, Menlo Park, CA 94025.

What is the deadline to propose actions for consideration at next year’s annual meeting of stockholders or to nominate individuals to serve as directors?

Stockholder Proposals for 2021 Annual Meeting

The submission deadline for stockholder proposals to be included in our proxy materials for the 2021 annual meeting of stockholders pursuant to Rule 14a-8 of the Exchange Act is February 24, 2021 except as may otherwise be provided in Rule 14a-8. All such proposals must be in writing and received by our Corporate Secretary at Pacific Biosciences of California, Inc., 1305 O’Brien Drive, Menlo Park, CA 94025 by close of business on the required deadline in order to be considered for inclusion in our proxy materials for the 2021 annual meeting of stockholders. Submission of a proposal before the deadline does not guarantee its inclusion in our proxy materials.

Advance Notice Procedure for 2021 Annual Meeting

Under our Bylaws, director nominations and other business may be brought at an annual meeting of stockholders only by or at the direction of the Board of Directors or by a stockholder entitled to vote who has submitted a proposal in accordance with the requirements of our Bylaws as in effect from time to time. For the 2021 annual meeting of stockholders, a stockholder notice must be received by our Corporate Secretary at Pacific Biosciences of California, Inc., 1305 O’Brien Drive, Menlo Park, CA 94025, no earlier than April 6, 2021 and no later than May 6, 2021. However, if the 2021 annual meeting of stockholders is advanced by more than 25 days prior to or delayed by more than 25 days after the one-year anniversary of the 2020 Annual Meeting of Stockholders, then, for notice by the stockholder to be timely, it must be received by our Corporate Secretary not earlier than the close of business on the 120th day prior to the 2021 annual meeting of stockholders and not later than the close of business on the later of (i) the 90th day prior to the 2021 annual meeting of stockholders, or (ii) the tenth day following the day on which public announcement of the date of such annual meeting is first made. Please refer to the full text of our advance notice Bylaw provisions for additional information and requirements. A copy of our Bylaws has been filed with the Annual Report and may be obtained by writing to our Corporate Secretary at the address listed above.

CORPORATE GOVERNANCE

Overview

The Board of Directors oversees our Chief Executive Officer and other senior management in the competent and ethical operation of our business and affairs and assures that the long-term interests of the stockholders are being served. The key practices and procedures of the Board of Directors are outlined in the Corporate Governance Guidelines available on our website at www.pacb.com, under “Corporate Governance.”

Board Leadership Structure

In accordance with our Corporate Governance Guidelines, the Board of Directors believes that the roles of Chairman and Chief Executive Officer may be filled by the same or different individuals. This allows the Board of Directors flexibility to determine whether the two roles should be combined or separated based upon the needs of the Company and the Board of Director’s assessment of our leadership from time to time.

In March 2020, in conjunction with its annual review of the leadership structure of the Board of Directors and in keeping with good governance practices, the Board of Directors decided to separate the Chair and Chief Executive Officer positions. The Board of Directors appointed Christian O. Henry as Chairman of the Board of Directors. Michael Hunkapiller will continue to serve as a member of the Board of Directors and the President and Chief Executive Officer of the Company.

The Board of Directors has determined that the separation of the roles of Chairman of the Board of Directors and President and Chief Executive Officer is appropriate at this time as it allows our President and Chief Executive Officer to focus primarily on management responsibilities and corporate strategy, while allowing the Chairman to focus on leadership of the Board of Directors, providing feedback and advice to the President and Chief Executive Officer and providing a channel of communication between the members of the Board of Directors and the President and Chief Executive Officer. The Chairman of the Board of Directors presides over all meetings of our Board of Directors and works with the President and Chief Executive Officer to develop agendas for meetings of our Board of Directors. He also works with the Board of Directors to drive decisions about particular strategies and policies and, in concert with the independent committees of the Board of Directors, facilitates a performance evaluation process of the Board of Directors.

In light of the appointment of an independent Chairman, the Board of Directors eliminated the position of Lead Independent Director. As a result, William Ericson will no longer serve as the Company’s Lead Independent Director, but will continue to serve as a member of the Board of Directors, Chair of the Compensation Committee of the Board of Directors and member of the Corporate Governance and Nominating Committee of the Board of Directors.

In the absence of the Chairman at a meeting of the Board of Directors, Dr. Hunkapiller presides over the meeting, whereas during executive sessions of the independent directors, an independent director in attendance presides over the meeting and provides feedback from the executive session to the Chairman, President and Chief Executive Officer and other senior management.

The Board’s Role in Risk Oversight

Our management has the day-to-day responsibility for identifying risks facing us, including implementing suitable mitigating processes and controls, assessing risks in relation to Company strategies and objectives, and appropriately managing risks in a manner that serves the best interests of the Company, our stockholders, and other stakeholders. Our Board of Directors is responsible for ensuring that an appropriate culture of risk management exists within the Company and for setting the right “tone at the top,” overseeing our aggregate risk profile, and assisting management in addressing specific risks.

Generally, various committees of our Board of Directors oversee risks associated with their respective areas of responsibility and expertise. For example, our Audit Committee oversees, reviews and discusses with management and the independent auditors risks associated with our internal controls and procedures for financial reporting and the steps management has taken to monitor and mitigate those exposures; our Audit Committee also oversees the management of other risks, including those associated with foreign exchange fluctuation, compliance with the United States Foreign Corrupt Practices Act of 1977. Our Compensation Committee oversees the management of risks associated with our compensation policies, plans and practices. Our Corporate Governance and Nominating Committee oversees the management of risks associated with director independence and Board of Directors composition and organization. Our Science and Technology Committee assists the Board of Directors in its oversight of our strategies to make use of science and technology and our quality strategy and processes. Management and other employees report to the Board of Directors and/or relevant committee from time to time on risk-related issues.

Director Independence

Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our Board of Directors has determined that none of Messrs. Ericson, Henry, Livingston and Mohr, and Drs. Botstein, Milligan and Shapiro, representing seven of our nine directors has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is “independent” as that term is defined under the rules of The Nasdaq Stock Market.

Our Board of Directors also determined that Messrs. Livingston and Mohr and Dr. Milligan, who comprise our Audit Committee, Messrs. Ericson, Henry and Mohr and Dr. Milligan, who comprise our Compensation Committee, Messrs. Ericson and Livingston, and Dr. Shapiro, who comprise our Corporate Governance and Nominating Committee, satisfy the independence standards for those committees established by applicable SEC rules, including Rule 10A-3 of the Exchange Act, and the rules of The Nasdaq Stock Market. In making this determination, our Board of Directors considered the relationships that each non-employee director has with us and all other facts and circumstances that our Board of Directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

The Board of Directors believes that the independence of the Board members satisfies the independence standards established by applicable SEC rules and the rules of The Nasdaq Stock Market.

Director Nominations

Candidates for nomination to our Board of Directors are selected by the Corporate Governance and Nominating Committee in accordance with the committee’s charter, our Certificate of Incorporation and Bylaws, our Corporate Governance Guidelines, and the criteria adopted by the Board of Directors regarding director candidate qualifications. The Corporate Governance and Nominating Committee will evaluate all candidates in the same manner and using the same criteria, regardless of the source of the recommendation.

The Corporate Governance and Nominating Committee may retain recruiting professionals to assist in identifying and evaluating candidates for director nominees. Although the Board of Directors does not maintain a specific policy with respect to board diversity, the Board of Directors believes that it should be a diverse body and the Corporate Governance and Nominating Committee considers a broad range of backgrounds and experiences. The Corporate Governance Guidelines, Stockholder Nomination Policy (as hereinafter defined) and Charter of the Corporate Governance and Nominating Committee set out that in making determinations regarding nominations of directors, the Corporate Governance and Nominating Committee considers factors such as character, integrity, judgment, diversity, independence, area of expertise, corporate experience, length of service, and understanding of the Company’s business. The Corporate Governance and Nominating Committee considers the following minimum qualifications to be satisfied by any nominee to the Board of Directors: the highest

personal and professional ethics and integrity; proven achievement and competence in the nominee's field and the ability to exercise sound business judgment; skills that are complementary to those of the existing Board of Directors; the ability to assist and support management and make significant contributions to the Company's success; and an understanding of the fiduciary responsibilities that is required of a member of the Board of Directors and the commitment of time and energy necessary to diligently carry out those responsibilities.

Based on the Corporate Governance and Nominating Committee's recommendation, the Board of Directors selects director nominees and recommends them for election by our stockholders, and also fills any vacancies that may arise between annual meetings of stockholders.

The Corporate Governance and Nominating Committee has a policy regarding the consideration of director candidates (the "Stockholder Nomination Policy"). Under the Stockholder Nomination Policy, the Corporate Governance and Nominating Committee will consider recommendations for candidates to the Board of Directors from stockholders holding at least five percent (5%) of the Company's common stock continuously for at least twelve (12) months prior to the date of the submission of the recommendation. The Corporate Governance and Nominating Committee will consider director candidates who are timely proposed by our stockholders in accordance with our Bylaws and other procedures established from time to time by the Corporate Governance and Nominating Committee.

If you would like the Corporate Governance and Nominating Committee to consider a prospective director candidate, please follow the procedures in our Bylaws and submit the candidate's name and qualifications to: Corporate Secretary, Pacific Biosciences of California, Inc., 1305 O'Brien Drive, Menlo Park, CA 94025.

Codes of Business Conduct

We have adopted a code of business conduct that is applicable to all of our employees, officers, and directors. Our code of business conduct is available on the Investor Relations page of our website at www.pacb.com under "Corporate Governance". We will post amendments to or waivers of our code of business conduct on the same website.

Communication with the Board of Directors

Any stockholder communication with our Board of Directors or individual directors should be directed to Pacific Biosciences of California, Inc., c/o Corporate Secretary, 1305 O'Brien Drive, Menlo Park, CA 94025. The Corporate Secretary will forward these communications, as appropriate, directly to the director(s). The independent directors of the Board of Directors review and approve the stockholder communication process periodically in an effort to enable an effective method by which stockholders can communicate with the Board of Directors.

BOARD OF DIRECTORS AND COMMITTEES OF THE BOARD

Board and Committee Meetings

Our Board of Directors and its committees meet throughout the year on a set schedule, hold special meetings as needed, and act by written consent from time to time. During fiscal year 2019, our Board of Directors held 6 meetings. Each director attended at least 75% of the aggregate of (i) the total number of meetings of our Board of Directors held during the period for which he or she has been a director and (ii) the total number of meetings held by all committees of our Board of Directors on which he or she served during the periods that he or she served. Although we do not have a formal policy regarding attendance by members of our Board of Directors at annual meetings of stockholders, we encourage, but do not require, our directors to attend. One of our nine board members attended our January 24, 2019 Special Meeting of Stockholders, and four of our nine board members attended our June 18, 2019 Annual Meeting of Stockholders.

The names of the nominees and directors, their ages as of June 1, 2020 and certain other information about them are set forth below:

<u>Name of Director</u>	<u>Age</u>	<u>Position</u>	<u>Class and Term</u>
David Botstein, Ph.D.	77	Director	Class III, term expires 2022
William Ericson	61	Director	Class III, term expires 2022
Christian O. Henry (1)	52	Chairman of the Board of Directors	Class I, term expires 2020
Michael Hunkapiller, Ph.D. (1)	71	President, Chief Executive Officer and Director	Class II, term expires 2021
Randy Livingston	66	Director	Class II, term expires 2021
John F. Milligan, Ph.D.	59	Director	Class I, term expires 2020
Marshall Mohr	64	Director	Class II, term expires 2021
Kathy Ordoñez	69	Director	Class III, term expires 2022
Lucy Shapiro, Ph.D.	79	Director	Class I, term expires 2020

- (1) On March 2, 2020, the Board appointed Mr. Henry as Chairman of the Board. Dr. Hunkapiller continues to serve as a member of the Board and the President and Chief Executive Officer of the Company. On June 10, 2020, the Company announced that Dr. Hunkapiller will retire as President and Chief Executive Officer by the end of 2020, and will remain a member of the Board.

The principal occupations and positions and directorships for at least the past five years of our directors and director nominees, as well as certain information regarding their individual experience, qualifications, attributes and skills that led our Board of Directors to conclude that they should serve on the Board of Directors, are described below. There are no family relationships among any of our directors or executive officers.

Michael Hunkapiller, Ph.D. became our President and Chief Executive Officer in 2012. He was Chairman of our Board of Directors from 2011 until March 2, 2020 and has served on our Board of Directors since 2005. Since November 2004, Dr. Hunkapiller has been a General Partner at Alloy Ventures, or Alloy, a venture capital firm. Prior to Alloy, Dr. Hunkapiller spent 21 years at Applied Biosystems Inc. At Applied Biosystems, he held various positions, most recently serving as president and general manager. Dr. Hunkapiller holds a Ph.D. in Chemical Biology from the California Institute of Technology and a B.S. in Chemistry from Oklahoma Baptist University. We believe that Dr. Hunkapiller possesses specific attributes that qualify him to serve as a member of our Board of Directors, including his long history with us, as well as his extensive experience at Applied Biosystems. Dr. Hunkapiller will retire from his role as our Chief Executive Officer and President by the end of fiscal year 2020. Dr. Hunkapiller will continue to serve as a member of our Board of Directors.

David Botstein, Ph.D. has been a member of our Board of Directors since 2012. Since January 2014, Dr. Botstein has been the Chief Scientific Officer at Calico Life Sciences, L.L.C. Dr. Botstein was formerly Director of the Lewis-Sigler Institute for Integrative Genomics and Anthony B. Evnin Professor of Genomics at

Princeton University, where he served from 2003 to 2013. From 1990 to 2003 he was Chairman of the Department of Genetics at Stanford University. Previously, he was Vice President for Science at Genentech, Inc. He is a member of the National Academy of Sciences and the Institute of Medicine and has received numerous awards for his achievements in science. Dr. Botstein has made fundamental contributions to modern genetics, including the discovery of many yeast and bacterial genes and the establishment of key techniques that are commonly used today. In 1980, Dr. Botstein and three colleagues proposed a method for mapping genes that laid the groundwork for the Human Genome Project. Dr. Botstein holds a Ph.D. in Human Genetics from the University of Michigan and an A.B. in Biochemical Sciences from Harvard. We believe that Dr. Botstein possesses specific attributes that qualify him to serve as a member of our Board of Directors, including his extensive experience in the life sciences industry.

William Ericson has been a member of our Board of Directors since 2004. Mr. Ericson has been the Founding Partner at Wildcat Venture Partners since 2016 where he focuses on investments in Digital Health. He is also a Managing Partner at Mohr Davidow Ventures (MDV) where he has led the firm's focus on personalized medicine investing since 2003. Mr. Ericson has also served as a director of Adamas Pharmaceuticals, Inc. since 2005. Mr. Ericson holds a B.S.F.S. from Georgetown University School of Foreign Service and a J.D. from Northwestern University School of Law. We believe that Mr. Ericson possesses specific attributes that qualify him to serve as a member of our Board of Directors, including his experience with multiple companies in the life sciences industry and his focus on companies with molecular diagnostic platforms that concentrate on personalized medicine.

Christian O. Henry has been a member of our Board of Directors since 2018 and was appointed as Chairman of the Board of Directors on March 2, 2020. Mr. Henry served as Executive Vice President & Chief Commercial Officer of Illumina, Inc. ("Illumina") from 2015 through January 2017, and previously served as Senior Vice President & Chief Commercial Officer from 2014 to 2015, Senior Vice President & General Manager Genomic Solutions from 2012 to 2014, Senior Vice President, Chief Financial Officer & General Manager Life Sciences from 2010 to 2012, Senior Vice President, Corporate Development & Chief Financial Officer from 2009 to 2010, Senior Vice President & Chief Financial Officer from 2007 to 2009, and Vice President & Chief Financial Officer from 2005 to 2006. Prior to joining Illumina, Mr. Henry served as the Chief Financial Officer of Tickets.com, Inc. from 2003 to 2005. From 1999 to 2003, Mr. Henry served as Vice President, Finance & Corporate Controller of Affymetrix, Inc. (acquired by Thermo Fisher Scientific in 2016). In 1997, Mr. Henry joined Nektar Therapeutics (formerly Inhale Therapeutic Systems, Inc.), as Corporate Controller, and later as its Chief Accounting Officer from 1997 to 1999. In 1996, Mr. Henry served as General Accounting Manager of Sugan, Inc. Mr. Henry began his career in 1992 at Ernst & Young LLP, where he was a Senior Accountant through 1996. Mr. Henry currently serves as a director and Chairman of the board of WAVE Life Sciences Ltd. Mr. Henry holds a B.A. in biochemistry and cell biology from the University of California, San Diego and an M.B.A., with a concentration in finance, from the University of California, Irvine. We believe that Mr. Henry possesses specific attributes that qualify him to serve as a member of our Board of Directors including his over 20 years of experience in growing companies in the life sciences industry.

Randy Livingston has been a member of our Board of Directors since 2009. He has served as Vice President for Business Affairs and Chief Financial Officer of Stanford University since March 2001. In October 2017, he was also named University Liaison for Stanford Medicine and a director of Stanford Health Care and Lucile Packard Children's Hospital at Stanford. Before joining Stanford University, Mr. Livingston served as chief financial officer for multiple technology and life science companies in Silicon Valley. Mr. Livingston currently serves as a director of eHealth, Inc. He also served as a director of Genomic Health, Inc. from 2004 to 2016. Mr. Livingston holds a B.S. in Mechanical Engineering and an M.B.A. from Stanford University. We believe that Mr. Livingston possesses specific attributes that qualify him to serve as a member of our Board of Directors, including his executive experience and his financial and accounting expertise with public companies.

John F. Milligan, Ph.D. has been a member of our Board of Directors since 2013. Dr. Milligan joined Gilead Sciences Inc. in 1990 as a research scientist and was appointed Director of Project Management and

Project Team Leader for the Gilead Hoffmann-La Roche Tamiflu® collaboration in 1996. In 2002, Dr. Milligan was appointed Chief Financial Officer of Gilead. He was named Gilead's Chief Operating Officer in 2007 and President in 2008. Dr. Milligan was appointed Chief Executive Officer and elected to the board of directors of Gilead in 2016. On December 31, 2018, Dr. Milligan retired as Chief Executive Officer of Gilead and resigned from the board of directors. Dr. Milligan is the Chair of the board of trustees of Ohio Wesleyan University. Dr. Milligan received his B.A. from Ohio Wesleyan University, his Ph.D. in biochemistry from the University of Illinois and was an American Cancer Society postdoctoral fellow at the University of California at San Francisco. We believe that Dr. Milligan possesses specific attributes that qualify him to serve as a member of our Board of Directors, including his executive experience and his financial expertise in the life sciences industry.

Marshall Mohr has been a member of our Board of Directors since 2012. Since March 2006, he has been Executive Vice President and Chief Financial Officer of Intuitive Surgical, Inc., a provider of surgical robotics. Prior to joining Intuitive Surgical, Mr. Mohr served as Vice President and Chief Financial Officer of Adaptec, Inc. Before 2003, Mr. Mohr was an audit partner with PricewaterhouseCoopers LLP where he was most recently the managing partner of the firm's West Region Technology Industry Group and led its Silicon Valley accounting and audit advisory practice. Since 2005, Mr. Mohr has been a member of the board of directors and Chairman of the audit committee of Plantronics, Inc., a provider of lightweight communications headsets and telephone headset systems, and also served as a member of the board of directors and Chairman of the audit committee of Atheros Communications, Inc., a developer of semiconductor system solutions for wireless communications products, from November 2003 to May 2011 when Atheros was sold to Qualcomm, Inc. Mr. Mohr holds a Bachelor of Business Administration in Accounting and Finance from Western Michigan University. We believe that Mr. Mohr possesses specific attributes that qualify him to serve as a member of our Board of Directors, including his experience in financial and accounting matters.

Kathy Ordoñez has been a member of our Board of Directors since December 2014. She served as our Chief Commercial Officer and Executive Vice President from October 2017 to October 2018. Ms. Ordoñez brings more than 30 years of experience in the life sciences and diagnostics industries. From January 2012 until June 2013, Ms. Ordoñez was a Senior Vice President at Quest Diagnostics Incorporated, a leading provider of diagnostic information services, where she was initially responsible for leading their R&D effort and later provided oversight to multiple businesses commercializing diagnostic products and testing services. Ms. Ordoñez joined Quest Diagnostics as part of its acquisition in 2011 of Celera Corporation, a leading provider of genetic testing products for HIV resistance, cystic fibrosis and high complexity tissue transplantation. From April 2002 until May 2011, Ms. Ordoñez was the Chief Executive Officer at Celera, and she founded Celera Diagnostics in December 2000. From 1985 until 2000, Ms. Ordoñez held several senior positions at Hoffmann-La Roche, overseeing the formation of Roche Molecular Systems, where she served as President and Chief Executive Officer, and led the wide-scale commercial application of the Polymerase Chain Reaction (PCR) technology to the research, diagnostic and forensic fields. Ms. Ordoñez also served as a member of the board of directors and non-executive Chairman, and Chief Executive Officer of RainDance Technologies, Inc., which was sold to Bio-Rad Laboratories, Inc. in February 2017 and has served as a member of the board of directors of Quidel Corporation since July 2019. We believe that Ms. Ordoñez possesses specific attributes that qualify her to serve as a member of our Board of Directors, including her extensive experience in the life sciences and diagnostic industries.

Lucy Shapiro, Ph.D. has been a member of our Board of Directors since 2012. Dr. Shapiro currently serves as the Virginia and D.K. Ludwig Professor of Cancer Research and the Director of the Beckman Center for Molecular and Genetic Medicine at Stanford University's School of Medicine, where she has been a faculty member since 1989. Dr. Shapiro is a co-founder and director of Anacor Pharmaceuticals, Inc. which was acquired by Pfizer Inc. in 2016. In 2016 she founded a second anti-infectives company, Boragen, LLC. In 1989, Dr. Shapiro founded Stanford University's Department of Developmental Biology, and served as its Chairman from 1989 to 1997. Prior to that, Dr. Shapiro served as Chair of the Department of Microbiology and Immunology in the College of Physicians and Surgeons of Columbia University. She received a B.A. from Brooklyn College and a Ph.D. in Molecular Biology from the Albert Einstein College of Medicine. Dr. Shapiro has received numerous awards including the National Medal of Science. She has been elected to the National

Academy of Sciences, the American Academy of Microbiology, the American Academy of Arts and Sciences and the National Academy of Medicine for her work in the fields of molecular biology and microbiology. Dr. Shapiro previously served as a non-executive director of GlaxoSmithKline plc from 2001 to 2006 and Anacor Pharmaceuticals, Inc. from 2001 to 2016. Dr. Shapiro was also a director of Gen-Probe, Inc. from 2008 to 2012. We believe that Dr. Shapiro possesses specific attributes that qualify her to serve as a member of our Board of Directors, including her extensive experience in the life sciences industry.

Board Committees

Our Board of Directors has an Audit Committee, a Compensation Committee, a Corporate Governance and Nominating Committee and a Science and Technology Committee, each of which has the composition and the responsibilities described below. The Audit Committee, Compensation Committee, Corporate Governance and Nominating Committee, and Science and Technology Committee all operate under charters approved by our Board of Directors, which charters are available on the Investors Relations page of our website at www.pacb.com under “Corporate Governance”. Our Board of Directors from time to time establishes additional committees to address specific needs.

The following table sets forth (i) the four standing committees of the Board of Directors, (ii) the current members of each committee and (iii) the number of meetings held by each committee in fiscal year 2019:

<u>Name of Director</u>	<u>Audit</u>	<u>Compensation</u>	<u>Corporate Governance and Nominating</u>	<u>Science and Technology</u>
David Botstein, Ph.D.				X
William Ericson		X (chair)	X	
Christian O. Henry		X		
Randy Livingston	X (chair)		X	
John F. Milligan, Ph.D.	X	X		
Marshall Mohr	X	X		
Kathy Ordoñez				X (chair)
Lucy Shapiro, Ph.D.			X (chair)	X
Number of meetings held during 2019	8	7	3	3

Audit Committee

Our Audit Committee oversees our corporate accounting and financial reporting process and assists the Board of Directors in monitoring our financial systems and our legal and regulatory compliance. Our Audit Committee is responsible for, among other things:

- providing oversight of our accounting and financial reporting processes and the audit of our financial statements;
- assisting the Board of Directors in oversight of: (i) the integrity of our financial statements, (ii) our compliance with legal and regulatory requirements, (iii) the independent auditor’s qualifications, independence and performance, and (iv) our internal accounting and financial controls; and
- providing to the Board of Directors such information and materials as it may deem necessary to make the Board of Directors aware of significant financial matters that require the attention of the Board of Directors.

The members of our Audit Committee are Messrs. Livingston and Mohr and Dr. Milligan. Mr. Livingston serves as our Audit Committee chair. Our Board of Directors has determined that each member of the Audit Committee meets the financial literacy requirements under the rules of The Nasdaq Stock Market and the SEC and each member of our Audit Committee qualifies as an Audit Committee financial expert as defined under SEC rules and regulations. We believe that the composition of our Audit Committee meets the requirements for

independence under, and the functioning of our Audit Committee complies with, all applicable requirements of The Nasdaq Stock Market and SEC rules and regulations.

Compensation Committee

Our Compensation Committee oversees our corporate compensation policies, plans and programs. The Compensation Committee is responsible for, among other things:

- providing oversight of our compensation policies, plans and programs;
- assisting the Board of Directors in discharging its responsibilities relating to: (i) oversight of the compensation of our Chief Executive Officer and other executive officers (including officers reporting under Section 16 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)), (ii) evaluating and approving our executive officer compensation plans, policies and programs, and (iii) evaluating and approving director compensation;
- assisting the Board of Directors in administering the Company’s equity compensation plans for its employees and directors; and
- providing oversight of, and advising the Board of Directors on, our Chief Executive Officer succession planning.

The members of our Compensation Committee are Messrs. Ericson, Mohr and Henry and Dr. Milligan. Mr. Ericson serves as the chair of our Compensation Committee.

Our Board of Directors has determined that each member of our Compensation Committee is independent within the meaning of the independent director guidelines of the Nasdaq Stock Market. We believe that the composition of our Compensation Committee meets the requirements for independence under, and the functioning of our Compensation Committee complies with, all applicable requirements of the Nasdaq Stock Market and SEC rules and regulations.

Corporate Governance and Nominating Committee

Our Corporate Governance and Nominating Committee oversees and assists our Board of Directors in reviewing and recommending corporate governance policies and nominees for election to our Board of Directors. The Corporate Governance and Nominating Committee is responsible for, among other things:

- overseeing, reviewing, and making periodic recommendations concerning our corporate governance policies;
- recommending candidates for election to the Board of Directors and for appointment to each committee of the Board of Directors; and
- overseeing the evaluation of the Board of Directors.

The members of our Corporate Governance and Nominating Committee are Messrs. Ericson and Livingston and Dr. Shapiro. Dr. Shapiro serves as the chair of our Corporate Governance and Nominating Committee. Our Board of Directors has determined that each member of our Corporate Governance and Nominating Committee is independent within the meaning of the independent director guidelines of The Nasdaq Stock Market.

Science and Technology Committee

Our Science and Technology Committee oversees and assists our Board of Directors in reviewing relevant science and technology matters related to the Company. The Science and Technology Committee is responsible for, among other things:

- serving in an advisory role and recommending other external advisors to assist us with the use of our science and technology;

- overseeing our innovation strategy, including periodic reviews of our research and development (R&D) portfolio and its overall competitiveness, the science and technology underlying major R&D initiatives, the competitive environment, and disruptive technology impacts;
- periodically conducting targeted reviews of our patent portfolio and strategy;
- advising the Board of Directors on the scientific and R&D aspects of major technology-based transactions and licensing agreements that require Board of Directors approval;
- reviewing the Company's overall quality strategy and processes in place to monitor and control product quality;
- periodically reviewing results of product quality and quality system assessments by us and external parties; and
- reviewing important product quality issues and field actions by us.

The members of our Science and Technology Committee are Drs. Botstein and Shapiro and Ms. Ordoñez. Ms. Ordoñez serves as the chair of our Science and Technology Committee.

Director Compensation

Employee directors are not compensated for Board of Directors services in addition to their regular employee compensation.

For 2019, the non-employee members of the Board of Directors were compensated as follows:

Cash compensation: Each non-employee member of the Board of Directors was eligible to receive the following cash compensation:

(1) In April 2019, in light of the then-in-process merger with Illumina, the Board of Directors decided to amend the Company's Outside Director Compensation Policy to terminate each non-employee director's annual stock option grant to purchase 25,000 of the Company's common stock and increase each non-employee director's cash retainer from \$35,000 to \$135,000, effective April 11, 2019.

(2) the chair of our Audit Committee is paid an annual retainer of \$20,000 and members of our Audit Committee other than the chair are paid an annual retainer of \$10,000;

(3) the chair of our Compensation Committee is paid an annual retainer of \$14,000, and members of our Compensation Committee other than the chair are paid an annual retainer of \$7,000;

(4) the chair of our Corporate Governance and Nominating Committee is paid an annual retainer of \$10,000, and members of our Corporate Governance and Nominating Committee other than the chair are paid an annual retainer of \$5,000;

(5) the chair of our Science and Technology Committee is paid an annual retainer of \$10,000, and the members of our Science and Technology Committee other than the chair are paid an annual retainer of \$5,000; and

(6) our lead independent director is paid an annual retainer of \$15,000.

We reimburse our non-employee directors for all reasonable out-of-pocket expenses incurred in the performance of their duties as directors.

Equity Compensation: Each new non-employee director receives a stock option grant to purchase 35,000 shares of our common stock under the terms of the 2010 Outside Director Equity Incentive Plan (the “2010 Director Plan”). These initial awards will vest over three years, with one-third of the shares subject to the option vesting on the one-year anniversary of the date of grant, and the remaining shares vesting monthly over the following two years, provided such non-employee director continues to serve as a director through each vesting date. In addition, each non-employee director automatically receives an annual stock option grant to purchase 25,000 shares of our common stock on the date of the annual meeting beginning on the date of the first annual meeting that is held at least four months after such non-employee director received his or her initial award, provided such non-employee director continues to serve as a director through such date. Such annual awards vest monthly over one year, provided such non-employee director continues to serve as a director through each vesting date.

In connection with Mr. Henry’s appointment as Chairman of the Board, effective March 2, 2020, Mr. Henry received an additional annual retainer of \$35,000 as well as a stock option to purchase 35,000 shares of the Company’s common stock.

Our Compensation Committee consulted with an independent compensation consultant, Radford, to perform an analysis of our outside director compensation policy relative to prevailing market data. Based on its review, the Board of Directors decided to make changes to existing cash and equity-based compensation levels. With respect to Board service, our Board of Directors approved compensation to each non-employee member of the Board as follows, effective June 21, 2020:

Cash compensation: Each non-employee member of the Board of Directors was eligible to receive the following cash compensation:

(1) Each Outside Director will be paid an annual cash retainer of \$35,000. There are no per-meeting attendance fees for attending Board meetings. This cash compensation will be paid quarterly in equal installments in advance.

(2) the chair of our Audit Committee is paid an annual retainer of \$20,000 and members of our Audit Committee other than the chair are paid an annual retainer of \$10,000;

(3) the chair of our Compensation Committee is paid an annual retainer of \$14,000, and members of our Compensation Committee other than the chair are paid an annual retainer of \$7,000;

(4) the chair of our Corporate Governance and Nominating Committee is paid an annual retainer of \$10,000, and members of our Corporate Governance and Nominating Committee other than the chair are paid an annual retainer of \$5,000;

(5) the chair of our Science and Technology Committee is paid an annual retainer of \$10,000, and the members of our Science and Technology Committee other than the chair are paid an annual retainer of \$5,000; and

(6) the chair of board is paid an annual retainer of \$35,000.

We reimburse our non-employee directors for all reasonable out-of-pocket expenses incurred in the performance of their duties as directors.

Equity compensation:

Each new non-employee director receives a stock option grant to purchase 35,000 shares of our common stock under the terms of the 2010 Director Plan, or, following termination of such plan, the Company’s 2020

Equity Incentive Plan. These initial awards will vest over three years, with one-third of the shares subject to the option vesting on the one-year anniversary of the date of grant, and the remaining shares vesting monthly over the following two years, provided such non-employee director continues to serve as a director through each vesting date.

In addition, each non-employee director automatically receives an annual stock option grant with a grant date fair value of \$100,000, beginning on the date of the first annual meeting of our stockholders that is held at least four months after such non-employee director initially began to provide continuous service as a non-employee director, provided such non-employee director continues to serve as a director through such date. Such annual awards vest monthly over one year, or if earlier, on the date of the next annual meeting of our stockholders, provided such non-employee director continues to serve as a director through each vesting date.

Limitation:

Non-employee directors may not be granted, in any fiscal year, awards and any other compensation (including without limitation any cash retainers or fees) that, in the aggregate, exceed \$500,000, provided that such amount is increased to \$1,000,000 in the fiscal year of his or her initial service as a non-employee director. Any awards or other compensation provided to an individual for his or her services as an employee or consultant (other than as a non-employee director) are excluded from such calculation.

In the event of a “change in control,” as defined in the 2010 Director Plan, with respect to awards granted under the 2010 Director Plan to non-employee directors, the participant non-employee director will fully vest in and have the right to exercise awards as to all shares underlying such awards and all restrictions on awards will lapse, and all performance goals or other vesting criteria will be deemed achieved at 100% of target level and all other terms and conditions met. See the section titled, “Proposal 4: Approval of 2020 Equity Incentive Plan” for details regarding the treatment of awards that may be granted to non-employee directors under the Company’s 2020 Equity Incentive Plan.

The following table sets forth information concerning compensation paid or accrued for services rendered to us by the non-employee members of our Board of Directors for the fiscal year ended December 31, 2019. Compensation paid to Dr. Hunkapiller is included in the section entitled “Executive Compensation” and excluded from the table below:

<u>Name</u>	<u>Fees earned or paid in cash (\$) (1)</u>	<u>Option Awards (\$)</u>	<u>Total (\$)</u>
David Botstein, Ph.D.	98,333	—	98,333
William Ericson	127,333	—	127,333
Christian O. Henry	100,333	—	100,333
Randy Livingston	118,333	—	118,333
John F. Milligan, Ph.D.	110,333	—	110,333
Marshall Mohr	110,333	—	110,333
Kathy Ordoñez	103,333	—	103,333
Lucy Shapiro, Ph.D.	108,333	—	108,333

- (1) In April 2019, in light of the then-in-process merger with Illumina, the Board of Directors decided to amend the Company’s Outside Director Compensation Policy to terminate each non-employee director’s annual stock option grant to purchase 25,000 of the Company’s common stock and increase each non-employee director’s cash retainer from \$35,000 to \$135,000, effective April 11, 2019.

The aggregate number of shares subject to stock options outstanding and exercisable, restricted stock units with time-based vesting (“RSUs”) and restricted stock units with performance-based vesting (“PSUs”) outstanding at December 31, 2019 for each non-employee director is as follows:

<u>Name</u>	<u>Aggregate Number of Stock Options Outstanding</u>	<u>Aggregate Number of Stock Options Exercisable</u>	<u>Aggregate Number of RSUs Outstanding</u>	<u>Aggregate Number of PSUs Outstanding</u>
David Botstein, Ph.D.	185,000	185,000	—	—
William Ericson	212,500	212,500	—	—
Christian O. Henry	35,000	16,527	—	—
Randy Livingston	217,500	217,500	—	—
John F. Milligan, Ph.D.	160,000	160,000	—	—
Marshall Mohr	210,000	210,000	—	—
Kathy Ordoñez (1)	547,500	320,412	32,813	43,750
Lucy Shapiro, Ph.D.	83,334	83,334	—	—

- (1) Ms. Ordoñez’s figures include the stock options, RSUs and PSUs granted to her during her tenure as Chief Commercial Officer and Executive Vice President from October 30, 2017 to October 30, 2018.

PROPOSAL 1: ELECTION OF DIRECTORS

Our Certificate of Incorporation provides for a classified Board of Directors. Each person elected as a Class I director at the Annual Meeting will serve for a three-year term expiring on the date of the 2023 annual meeting of stockholders.

Our Board of Directors has nominated Christian O. Henry, John F. Milligan, Ph.D., and Lucy Shapiro, Ph.D. for election as Class I directors at the Annual Meeting. Please refer to “Board of Directors and Committees of the Board” section above for the nominees’ biographies.

Each nominee will be elected separately by a majority vote. A given nominee will be elected if the votes cast for such nominee’s election exceed the votes cast against such nominee’s election. In the event a nominee is unable or declines to serve as a director, the proxies will be voted at the Annual Meeting for any nominee who may be designated by the Board of Directors to fill the vacancy. As of the date of this Proxy Statement, the Board of Directors is not aware of any nominee who is unable or will decline to serve as a director.

Summary information regarding our Class I nominees, as well as directors not up for election at the Annual Meeting is set forth below.

<u>Name of Director</u>	<u>Age</u>	<u>Principal Occupation</u>	<u>Director Since</u>
Class I Nominees (term to expire in 2020)			
Christian O. Henry	52	Chairman of the Board of Directors	2018
John F. Milligan, Ph.D.	59	Retired Chief Executive Officer and President of Gilead Sciences Inc.	2013
Lucy Shapiro, Ph.D.	79	Virginia and D.K. Ludwig Professor of Cancer Research and the Director of the Beckman Center for Molecular and Genetic Medicine at Stanford University’s School of Medicine.	2012
Class II Directors (term to expire in 2021)			
Michael Hunkapiller, Ph.D.	71	President and Chief Executive Officer of Pacific Biosciences of California, Inc.	2005
Randy Livingston	66	Vice President for Business Affairs and Chief Financial Officer of Stanford University.	2009
Marshall Mohr	64	Executive Vice President and Chief Financial Officer of Intuitive Surgical, Inc.	2012
Class III Directors (term to expire in 2022)			
David Botstein, Ph.D.	77	Chief Scientific Officer of Calico Life Sciences.	2012
William Ericson	61	Managing Partner of Mohr Davidow Ventures and Founding Partner of Wildcat Venture Partners.	2004
Kathy Ordoñez	69	Director	2014

There are no family relationships among any of the nominees, directors and/or any of our executive officers. Our executive officers serve at the discretion of the Board of Directors. Further information about our directors, including each of the Class I director nominees, is provided in the “Board of Directors and Committees of the Board” section above.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE “FOR” EACH OF THE THREE CLASS I DIRECTORS NOMINEES TO SERVE AS A CLASS I DIRECTOR.

PROPOSAL 2: RATIFICATION OF THE APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has appointed Ernst & Young LLP, independent registered public accounting firm, to audit our consolidated financial statements for the fiscal year ending December 31, 2020. Ernst & Young LLP has audited our consolidated financial statements since 2011. Representatives of Ernst & Young LLP are expected to be present at the Annual Meeting, will have the opportunity to make a statement if they desire to do so, and are expected to be available to respond to appropriate questions.

Stockholder ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm is not required by our Bylaws or otherwise. The Board of Directors, however, is submitting the appointment of Ernst & Young LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the appointment, the Audit Committee and the Board of Directors will reconsider whether or not to retain the firm. Even if the appointment is ratified, the Audit Committee in its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in the best interests of our Company and our stockholders.

Policy on Audit Committee's Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

The Audit Committee reviews and pre-approves all audit and permissible non-audit services provided by the independent registered public accounting firm. These services may include audit services, audit-related services and tax services, as well as specifically designated non-audit services which, in the opinion of the Audit Committee, will not impair the independence of the independent registered public accounting firm. Pre-approval generally is provided for up to one year, and any pre-approval is detailed as to the particular service or category of services and generally is subject to a specific budget. The independent registered public accounting firm and our management are required to periodically report to the Audit Committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, including the fees for the services performed to date. In addition, the Audit Committee also may pre-approve particular services on a case-by-case basis, as necessary or appropriate.

The following table sets forth the approximate aggregate fees billed to us by Ernst & Young in fiscal years 2019 and 2018 (in thousands):

<u>Fee Category</u>	<u>2019</u>	<u>2018</u>
Audit Fees	\$ 1,197	\$ 1,117
Audit-related Fees	—	—
Tax Fees	—	—
All Other Fees	<u>2</u>	<u>2</u>
Total Fees	<u>\$ 1,199</u>	<u>\$ 1,119</u>

Audit Fees consisted of professional services rendered in connection with the audit of our annual consolidated financial statements and quarterly review of our condensed financial statements. This category also includes advice on accounting matters that arose during the audit or the review of interim financial statements.

Audit-Related Fees consisted of fees for professional services that are reasonably related to the performance of the audit or review of our financial statements.

Tax Fees consisted of professional services rendered in connection with tax compliance, tax advice and tax planning.

All Other Fees consisted of fees paid for a subscription to an accounting research database.

The Audit Committee has concluded that the provision of the non-audit services listed above was compatible with maintaining the independence of Ernst & Young.

Vote Required

The ratification of the appointment of Ernst & Young requires the affirmative vote of a majority of the shares of our common stock present remotely or by proxy at the Annual Meeting and entitled to vote thereon. Abstentions will have the effect of a vote AGAINST the proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE “FOR” THE RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2020.

PROPOSAL 3: ADVISORY APPROVAL OF EXECUTIVE COMPENSATION

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, enables stockholders to approve, on an advisory or non-binding basis, the compensation of our named executive officers as disclosed pursuant to Section 14A of the Exchange Act. This proposal, commonly known as a “say-on-pay” proposal, gives our stockholders the opportunity to express their views on our named executive officers’ compensation as a whole. This approval is not intended to address any specific item of compensation or any specific named executive officer, but rather the overall compensation of all of our named executive officers and the philosophy, policies and practices described in this Proxy Statement.

The say-on-pay vote is advisory, and therefore not binding on us, the Compensation Committee or our Board of Directors. The say-on-pay vote will, however, provide information to us regarding investor sentiment about our executive compensation philosophy, policies and practices, which the Compensation Committee will be able to consider when determining executive compensation for the remainder of the current fiscal year and beyond. Our Board of Directors and our Compensation Committee value the opinions of our stockholders and to the extent there is any significant vote against the named executive officer compensation as disclosed in this Proxy Statement, we will communicate directly with stockholders to better understand the concerns that influenced the vote, consider our stockholders’ concerns and the Compensation Committee will evaluate whether any actions are necessary to address those concerns.

We believe that the information provided in the “Executive Compensation” section of this Proxy Statement, and in particular the information discussed in “Executive Compensation – Compensation Discussion and Analysis”, demonstrates that our executive compensation program was designed appropriately and is working to ensure management’s interests are aligned with our stockholders’ interests to support long-term value creation. Accordingly, we ask our stockholders to vote “FOR” the following resolution at the Annual Meeting.

“RESOLVED, that the stockholders approve, on an advisory basis, the compensation paid to the named executive officers, as disclosed in the proxy statement for the 2020 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the SEC, including the compensation tables and narrative discussion, and other related disclosure.”

Vote Required

The advisory approval of executive compensation requires the affirmative vote of a majority of the shares of our common stock present remotely or by proxy at the Annual Meeting and entitled to vote thereon. Abstentions will have the effect of a vote AGAINST the proposal, and broker non-votes will have no effect on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE “FOR” THE APPROVAL OF EXECUTIVE COMPENSATION.

PROPOSAL 4: APPROVAL OF 2020 EQUITY INCENTIVE PLAN

We are seeking stockholder approval of the Company's 2020 Equity Incentive Plan and its material terms (the "2020 Plan") so that we may continue to achieve our goals of attracting, motivating and retaining our service providers through grants of equity awards, which the Board of Directors believes to be in the best interests of the Company and its stockholders. The Board of Directors, Compensation Committee, and management believe that grants of equity awards to employees motivate high levels of performance to achieve our goals, provide an effective means for recognizing employee contributions that promote our success, and promote the closer alignment of the interests of employees with those of our stockholders by giving employees a perspective of an owner with an equity stake in the Company.

For the 2020 Plan's share reserve, which stockholders are being asked to approve, the maximum aggregate number of Shares that may be issued under the 2020 Plan is (i) 11,000,000 Shares, plus (ii) any Shares subject to stock options or similar awards granted under any of the Company's 2010 Equity Incentive Plan (the "2010 Plan"), 2010 Outside Director Equity Incentive Plan (the "2010 Director Plan"), or 2005 Stock Plan (collectively, the "Prior Plans") that, on or after the effective date of the 2020 Plan (which, if stockholders approve the 2020 Plan at the Annual Meeting, will be the date of the Annual Meeting), expire or otherwise terminate without having been exercised or issued in full and any Shares subject to awards granted under the Prior Plans that, on or after the effective date of the 2020 Plan, are forfeited to or repurchased by the Company due to failure to vest, with the maximum number of Shares to be added to the 2020 Plan pursuant to the foregoing clause (ii) equal to 26,903,587 Shares.

The Board of Directors has approved the 2020 Plan, subject to the approval of our stockholders at the Annual Meeting. The affirmative vote of the holders of a majority of the shares present remotely or represented by Proxy and entitled to vote at the Annual Meeting will be required to approve this proposal. The 2010 Plan and 2010 Director Plan will continue under their current terms and we will continue to grant future equity awards from the 2010 Plan and 2010 Director Plan, until such plans expire in July 2020. This would mean that we will soon be unable to continue making grants under the 2010 Plan and 2010 Director Plan, jeopardizing our ability to attract and retain the talent necessary for us to continue and succeed in our business. Notwithstanding the expirations of the 2010 Plan and 2010 Director Plan, those plans will continue to govern the terms of outstanding awards previously granted under such plans.

Background of the Share Reserve Under the 2020 Plan

We considered a number of factors regarding the appropriate number of Shares that would be reserved under the 2020 Plan, including the following:

- *Shares Available for Grant.* As of the end of fiscal 2019, 20,473,971 Shares were available for issuance under our 2010 Plan and 2010 Director Plan. On the following day on January 1, 2020, the number of Shares available for issuance under our 2010 Plan increased by 7,655,953 Shares and the number of Shares available for issuance under our 2010 Director Plan increased by 1,531,190 Shares pursuant to the automatic share reserve increase provision under such plans. After our fiscal end 2019, Shares subject to outstanding awards also may return and become available for issuance again under the 2010 Plan or 2010 Director Plan in accordance with the terms of such plans. However, upon stockholder approval of the 2020 Plan, no further awards will be granted under the 2010 Plan or 2010 Director Plan and any Shares available for issuance under such plans as of the plans' termination will not become available for grant under the 2020 Plan.
- *Shares Outstanding.* As of the end of fiscal 2019, under the 2010 Plan and 2010 Director Plan there were (i) 22,696,574 Shares subject to outstanding options, (ii) 1,086,290 Shares subject to outstanding restricted stock units, and (iii) 137,500 Shares subject to outstanding performance-based restricted stock units (assuming maximum achievement of any applicable performance goals).

- *Overhang.* As of the end of fiscal 2019, our overhang was 14%. We calculated overhang as the number of shares subject to equity awards outstanding as of the end of fiscal 2019 (and with respect to performance-based equity awards, based on the maximum number of Shares subject to such awards), divided by the sum of the number of Shares outstanding as of such date, and the number of Shares subject to equity awards under the 2010 Plan and 2010 Director Plan outstanding as of such date.
- *Burn Rate.* Burn rate measures our usage of our Shares for the 2010 Plan and 2010 Director Plan as a percentage of the total outstanding Shares. For our fiscal years 2019, 2018 and 2017, our burn rates were 0.6%, 1.8% and 4.1%, respectively. The rates were calculated as the number of our Shares subject to equity awards granted during the year, net of cancellations, divided by the weighted average number of our Shares outstanding during the year.
- *Forecasted Grants.* We anticipate that the Shares reserved under the 2020 Plan, based on currently projected share use, will be sufficient for the granting of equity awards under the 2020 Plan for approximately two years. However, future circumstances and business needs, such as higher than expected headcount increases and competitive pressures for attracting and retaining employees may result in a significant increase in projected equity award grants. In addition, as previously announced, our Chief Executive Officer will retire by the end of this year and our Chief Financial Officer will retire in August 2020. It is possible that any equity awards granted to a new Chief Executive Officer and new Chief Financial Officer may affect our share use under the 2020 Plan significantly.
- *Proxy Advisory Firm Guidelines.* In light of our significant institutional shareholder base, the Board of Directors and the Compensation Committee considered proxy advisory firm guidelines.

Reasons for Voting for the Proposal

The 2020 Plan has been designed consistent with best corporate governance practices.

- *Stockholder Approval is Required for Additional Shares.* The 2020 Plan does not contain any annual “evergreen” provision but instead reserves a fixed maximum number of shares for issuance under it. Stockholder approval will be required for increases in the shares issuable under the 2020 Plan.
- *No Liberal Share Recycling.* Shares used to pay the exercise price of an award granted under the 2020 Plan or to satisfy tax withholding obligations related to an award granted under the 2020 Plan will not become available for future grant under the 2020 Plan. In addition, upon the exercise of any stock appreciation right award granted under the 2020 Plan that is settled in Shares, the gross number of Shares exercised will cease to be available for issuance under the 2020 Plan.
- *Repricing Prohibition.* The 2020 Plan prohibits any program providing participants the opportunity to exchange awards granted under the 2020 Plan for awards of the same type, awards of a different type, and/or cash, have the exercise price of awards reduced, or transfer awards granted under the 2020 Plan to a financial institution or other person or entity selected by the administrator of the 2020 Plan.
- *Non-employee Director Limits.* Under the 2020 Plan, in any fiscal year of ours, no non-employee member of our Board of Directors may be granted, for his or her services on our Board of Directors, equity awards with an aggregate grant date fair value and any other compensation (including any cash retainers or fees) that in the aggregate exceed \$500,000, with such amount increased to \$1,000,000 in the fiscal year of his or her initial service as a non-employee member of our Board of Directors.
- *No Dividends on Options and Stock Appreciation Rights Until Shares Are Issued and No Dividend Payments on Other Awards While Unvested.* Under the 2020 Plan and except for adjustments due to certain corporate transactions specified in the 2020 Plan, no stock option or stock appreciation right will confer any rights to dividends or other stockholder rights with respect to its underlying Shares until such Shares are issued following exercise of the award, and any dividends that the administrator may determine will be payable on any other awards granted under the 2020 Plan will be subject to the same vesting criteria, forfeitability and/or transferability restrictions as apply to the Shares subject to the awards on which such dividends would be paid.

- *Clawback Policy.* The 2020 Plan provides that awards granted under the 2020 Plan will be subject to our clawback policy as may be established and/or amended from time to time to comply with applicable laws. The administrator of the 2020 Plan also may impose forfeiture of awards granted under the 2020 Plan as required by applicable laws as well as pursuant to such terms specified by the administrator in an award agreement. We adopted a clawback policy in April 2020, as discussed further in the section of this Proxy Statement entitled “Compensation Discussion and Analysis.”

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR THE APPROVAL OF THE 2020 EQUITY INCENTIVE PLAN.

Summary of the 2020 Equity Incentive Plan

The following is a summary of the principal features of the 2020 Plan and its operation, as most recently approved by our Board of Directors (the “Board”) and its Compensation Committee in June 2020, subject to stockholder approval. This summary does not contain all of the terms and conditions of the 2020 Plan and is qualified in its entirety by reference to the 2020 Plan as set forth in **Appendix A**.

General

The purposes of the 2020 Plan are to attract and retain the best available personnel for positions of substantial responsibility; to provide additional incentives to employees and consultants of ours and any of our parent or subsidiaries, and members of our Board; and to promote the success of our business. These incentives are provided through the grant of stock options, stock appreciation rights, restricted stock awards, restricted stock units, performance shares and performance units (each, an “Award”).

Authorized Shares

Upon stockholder approval of the 2020 Plan, and subject to adjustment upon certain changes in our capitalization as described in the 2020 Plan, the maximum aggregate number of Shares that will be available for issuance under the 2020 Plan will equal (i) 11,000,000 Shares, plus (ii) any Shares subject to stock options or similar awards granted under any of the 2010 Plan, 2010 Director Plan, or 2005 Stock Plan (which collectively are defined further above as the “Prior Plans”) that, on or after the effective date of the 2020 Plan, expire or otherwise terminate without having been exercised or issued in full and any Shares subject to awards granted under the Prior Plans that, on or after the effective date of the 2020 Plan, are forfeited to or repurchased by the Company due to failure to vest, with the maximum number of Shares to be added to the 2020 Plan pursuant to the foregoing clause (ii) equal to 26,903,587 Shares. As previously approved by our Board and its Compensation Committee in April 2020, the 2020 Plan provided that the number of Shares that will be available for issuance under the 2020 Plan pursuant to clause (i) of the preceding sentence would be 12,400,000. With the amendment and restatement of the Company’s proxy statement filed on April 28, 2020, such number of Shares that stockholders are being asked to approve under the 2020 Plan under such clause (i) has been adjusted downward by 1,400,000 Shares, to 11,000,000 Shares. Shares under the 2020 Plan may be our authorized but unissued, or reacquired common stock.

If an Award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an exchange program (as described further below), or is forfeited to or repurchased by the Company due to failure to vest, then the unpurchased Shares (or for Awards other than options or stock appreciation rights, the forfeited or repurchased Shares), which were subject thereto will become available for future grant or sale under the 2020 Plan (unless the 2020 Plan has terminated). With respect to stock appreciation rights that are settled in Shares, the gross number of Shares covered by the exercised portion of the Award will cease to be available under the 2020 Plan. Shares that actually have been issued under the 2020 Plan under any Award will not be returned to the 2020 Plan and will not become available for future distribution under the 2020 Plan; provided that

if Shares under Awards of restricted stock, restricted stock units, performance shares or performance units are repurchased by the Company or are forfeited to the Company due to failure to vest, such Shares will become available for future grant under the 2020 Plan. Shares used to pay the exercise price of an Award or to satisfy the tax withholding obligations related to an Award will not become available for future grant or sale under the 2020 Plan. To the extent an Award under the 2020 Plan is paid out in cash rather than Shares, the cash payment will not result in reducing the number of Shares available for issuance under the 2020 Plan.

Adjustments to Shares Subject to the 2020 Plan

In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, reclassification, repurchase, or exchange of our Shares or other securities, or other change in our corporate structure affecting the Shares occurs (other than any ordinary dividends or other ordinary distributions), the administrator of the 2020 Plan, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the 2020 Plan, will adjust the number and class of shares of stock that may be delivered under the 2020 Plan and/or the number, class, and price of shares of stock covered by each outstanding Award under the 2020 Plan, and the numerical share limits of the 2020 Plan.

Administration of the 2020 Plan

The 2020 Plan will be administered by the Board or a committee of individuals satisfying applicable laws appointed by the Board, including the Compensation Committee of the Board (the “administrator”). To the extent desirable to qualify transactions relating to Awards granted under the 2020 Plan to be exempt under Rule 16b-3 of the Exchange Act, such contemplated transactions will be structured in a manner that satisfies the requirements for exemption under such rule (including, for example, that the members of the committee administering the 2020 Plan must qualify as non-employee directors under such rule). Different committees with respect to different groups of service providers may administer the 2020 Plan.

Subject to the provisions of the 2020 Plan, the administrator has full authority to:

- determine the fair market value of a Share;
- select the service providers to whom Awards may be granted under the 2020 Plan;
- determine the number of Shares to be covered by each Award granted under the 2020 Plan;
- approve forms of award agreement for use under the 2020 Plan;
- determine the terms and conditions, not inconsistent with the terms of the 2020 Plan, of any Award granted under the 2020 Plan;
- prescribe, amend and rescind rules and regulations relating to the 2020 Plan, including rules and regulations relating to any sub-plans under the 2020 Plan;
- construe and interpret the terms of the 2020 Plan and Awards granted under the 2020 Plan;
- modify or amend each Award (subject to the provisions of the 2020 Plan);
- allow participants to satisfy tax withholding obligations in a manner prescribed in the 2020 Plan;
- authorize any person to execute on our behalf any instrument required to effect the grant of an Award previously granted by the administrator;
- temporarily suspend the exercisability of an Award if the administrator deems such suspension to be necessary or appropriate for administrative purposes;
- allow a participant to defer the receipt of the payment of cash or the delivery of Shares that otherwise would be due to the participant under an Award; and
- make all other determinations deemed necessary or advisable for administering the 2020 Plan.

The administrator will not be permitted to implement any “exchange program,” under which (i) outstanding Awards are surrendered or cancelled in exchange for awards of the same type (which may have higher or lower exercise prices and different terms), awards of a different type, and/or cash, (ii) participants would have the opportunity to transfer any outstanding Awards granted under the 2020 Plan to a financial institution or other person or entity selected by the administrator, and/or (iii) the exercise price of an outstanding Award is reduced.

The administrator may determine the methods by which participants may satisfy tax withholding obligations relating to Awards granted under the 2020 Plan, which includes without limitation, paying cash; electing to have the Company withhold otherwise deliverable cash or Shares having a fair market value equal to the minimum statutory amount required to be withheld (or such greater amount as the administrator may determine if it determines such amount would not have adverse accounting consequences); delivering to us already-owned Shares having a fair market value equal to the statutory amount required to be withheld (or such greater amount as the administrator may determine if the administrator determines such delivery would not have adverse accounting consequences); selling a sufficient number of Shares otherwise deliverable to the participant through means that the administrator may determine equal to the amount required to be withheld; or any combination of these methods. The amount of withholding will include any amount the administrator approves for withholding at the time the election is made, not to exceed the amount determined by using the maximum federal, state or local marginal income tax rates applicable to the participant, or such greater amount if the administrator determines such amount would not have adverse accounting consequences.

The administrator’s decisions, determinations and interpretations with respect to the 2020 Plan will be final and binding on all participants and other Award holders and will be given the maximum deference permitted by applicable laws.

Dividends

With respect to any options and stock appreciation rights, until the Shares subject to the Award are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to such Award. Further, no adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued under an option or stock appreciation right, except as provided in the 2020 Plan. During any applicable period of restriction, service providers holding Shares of restricted stock will be entitled to receive all dividends and other distributions paid with respect to such Shares, unless the administrator provides otherwise; provided, however, that any such dividends or distributions payable with respect to such Shares will be subject to the same restrictions on transferability and/or forfeitability as the Shares of restricted stock with respect to which they were paid. With respect to Awards of restricted stock units, performance units and performance shares, until the Shares are issued, no right to receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to such Award, unless determined otherwise by the administrator; provided, however, that any such dividends or distributions that the administrator determines will be payable with respect to such Shares will be subject to the same vesting criteria and forfeitability provisions as the Shares subject to such Award with respect to which they were paid. The number of Shares available for issuance under the 2020 Plan will not be reduced to reflect any dividends or other distributions that are reinvested into additional Shares or credited as additional Shares subject to or paid with respect to an Award.

Eligibility

Awards may be granted to our employees and consultants, employees and consultants of any of our parent or subsidiaries, and members of our Board. Incentive stock options, within the meaning of Section 422 of the Code, may be granted only to employees who are our employees or employees of any of our parent or subsidiaries. As of June 1, 2020, the individuals eligible to participate in the 2020 Plan consisted of approximately 400 employees (including four executive officers), eight non-employee directors and six consultants.

Award Limitations

No non-employee director may be granted, in any fiscal year of ours, Awards with an aggregate grant date fair value (determined in accordance with U.S. generally accepted accounting principles) and any other compensation (including without limitation any cash retainers or fees) that in the aggregate exceed \$500,000, provided that such amount is increased to \$1,000,000 in our fiscal year of his or her initial service as a non-employee director. Any Awards or other compensation provided to an individual for his or her service as an employee or consultant (other than a non-employee director) will not count for purposes of this limitation.

Stock Options

Each option granted under the 2020 Plan will be evidenced by a written or electronic agreement between us and the participant receiving the Award (an “award agreement”), specifying the exercise price, the number of Shares subject to the option, any exercise restrictions, and such other terms and conditions the administrator determines, consistent with the requirements of the 2020 Plan. The exercise price per Share of each option may not be less than 100% of the fair market value of a Share on the option’s date of grant, except in limited circumstances specified in the 2020 Plan. Any incentive stock option granted to a person who at the time of grant owns Shares possessing more than 10% of the voting power of all classes of our Shares or of any parent or subsidiary of ours (a “Ten Percent Shareholder”) must have an exercise price per Share equal to at least 110% of the fair market value of a Share on the date of grant. Generally, the fair market value of a Share is its closing sales price as quoted on The Nasdaq Global Select Market on the day of determination. On June 1, 2020, the closing price of a Share on The Nasdaq Global Select Market was \$3.55 per Share.

The 2020 Plan provides that the option exercise price may be paid, as determined by the administrator and subject to the terms of the 2020 Plan, in cash (or cash equivalents), check, promissory note (to the extent permitted by applicable laws), other Shares of ours having a fair market value equal to the aggregate exercise price of the exercised Shares, consideration received under a broker-assisted or other cashless exercise program (whether through a broker or otherwise) that we implement in connection with the 2020 Plan, net exercise, such other consideration and method of payment for the issuance of Shares to the extent permitted by applicable laws, or by any combination of these methods. The maximum term of an option will be specified in the award agreement, provided that the term of an incentive stock option will be no more than 10 years, and provided further that an incentive stock option granted to a Ten Percent Shareholder must have a term not exceeding 5 years.

The administrator will determine and specify in each award agreement, and solely in its discretion, the period of exercisability following termination of service applicable to each option. In the absence of such a determination by the administrator, the participant generally will be able to exercise his or her option (to the extent vested) for (i) three months following cessation of his or her service provider status for reasons other than death or disability, and (ii) 12 months following cessation of his or her service provider status due to disability or following his or her death while holding the option.

Stock Appreciation Rights

A stock appreciation right gives a participant the right to receive the appreciation in the fair market value of our Shares between the date of grant of the Award and the date of its exercise. Each stock appreciation right granted under the 2020 Plan will be evidenced by an award agreement specifying the exercise price, the term of the stock appreciation right, the conditions of exercise, and the other terms and conditions of the Award, consistent with the requirements of the 2020 Plan. At the administrator’s discretion, the payment upon exercise of stock appreciation rights may be in cash, our Shares of equivalent value, or a combination of both. The exercise price per Share of each stock appreciation right may not be less than the fair market value of a Share of our stock on the date of grant, except in limited circumstances specified in the 2020 Plan. Upon exercise of a stock appreciation right, the holder of the Award will be entitled to receive an amount determined by multiplying

(i) the difference between the fair market value of a Share on the date of exercise over the exercise price by
(ii) the number of exercised Shares. Awards of stock appreciation rights will expire upon the date as determined by the administrator, in its sole discretion, and set forth in the applicable award agreement. The terms and conditions relating to the period of exercisability following termination of service with respect to options described above also apply to stock appreciation rights.

Restricted Stock Awards

Restricted stock Awards are grants of Shares that may be subject to various restrictions, which may include restrictions on transferability and forfeiture provisions. Each restricted stock Award granted will be evidenced by an award agreement specifying any period during which the transfer of the restricted stock is subject to restriction, the number of Shares subject to the Award, and the other terms and conditions of the Award determined by the administrator, consistent with the requirements of the 2020 Plan.

Unless otherwise provided by the administrator, a participant will forfeit any Shares of restricted stock as to which the restrictions have not lapsed as of such date as is specified in the award agreement. Unless the administrator provides otherwise, participants holding restricted stock will have full voting rights with respect to the Shares subject to the Award. The administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed.

Restricted Stock Units

An award of restricted stock units is a bookkeeping entry representing an amount equal to the fair market value of the underlying Shares. Each restricted stock unit Award granted under the 2020 Plan will be evidenced by an award agreement specifying the number of Shares subject to the Award and other terms and conditions of the Award, consistent with the requirements of the 2020 Plan. Restricted stock units will result in a payment to a participant if the vesting criteria the administrator may establish are satisfied or the Awards otherwise vest. Earned restricted stock units will be settled, in the sole discretion of the administrator, only in the form of cash, Shares, or in a combination of both. The administrator may establish vesting criteria in its discretion, which may be based on achievement of Company-wide, divisional, business unit or individual goals (including without limitation continued employment or service), applicable federal or state securities laws, or any other basis determined by the administrator. After the grant of a restricted stock unit Award, the administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout. A participant will forfeit any unearned restricted stock units as of the date set forth in the applicable award agreement.

Performance Units and Performance Shares

Performance units and performance shares also may be granted under the 2020 Plan. Each Award of performance shares or performance units granted under the 2020 Plan will be evidenced by an award agreement specifying any performance period and other terms and conditions of the Award, consistent with the requirements of the 2020 Plan. Performance units and performance shares will result in a payment to a participant if any performance goals or other vesting criteria the administrator may establish are achieved or the Awards otherwise vest. Earned performance units and performance shares will be paid, in the sole discretion of the administrator, in the form of cash, Shares, or in a combination of both.

The administrator may establish performance objectives in its discretion, which may be based on Company-wide, divisional, business unit or individual goals (including without limitation continued employment or service), applicable federal or state securities laws, or any other basis determined by the administrator. After the grant of a performance unit or performance share, the administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such performance units or shares. Performance units will have an initial value established by the administrator on or before the date of grant. Each performance share will have an initial value equal to the fair market value of a Share on the Award's grant date. A participant will forfeit any performance shares or units that are unearned as of the date set forth in the award agreement.

Transferability of Awards

Awards under the 2020 Plan generally are not transferable other than by will or by the laws of descent and distribution, and may be exercised during a participant's lifetime only by the participant, unless the administrator determines otherwise.

Dissolution or Liquidation

In the event of our proposed dissolution or liquidation, the administrator will notify each participant as soon as practicable prior to the effective date of such proposed transaction. An Award will terminate immediately prior to consummation of such proposed action to the extent the Award previously has not been exercised.

Merger or Change in Control

The 2020 Plan provides that, in the event of our merger with or into another corporation or other entity or our "change in control" (as defined in the 2020 Plan), the administrator will have authority to determine the treatment of outstanding Awards (without participants' consent), including, without limitation, that:

- Awards will be assumed or substantially equivalent Awards will be substituted by the acquiring or succeeding corporation or its affiliate;
- Awards will terminate upon or immediately prior to consummation of such transaction, upon providing written notice to the participant;
- outstanding Awards will vest and become exercisable, realizable, or payable, or restrictions applicable to an Award will lapse, in whole or in part prior to or upon consummation of such transaction and, to the extent the administrator determines, terminate upon or immediately prior to the effectiveness of the transaction;
- an Award will terminate in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon exercise of the Award or realization of the participant's rights as of the date of the transaction, or an Award will be replaced with other rights or property selected by the administrator in its sole discretion; or
- any combination of the above.

If the successor corporation does not assume or substitute outstanding Awards (or portions thereof), then with respect to those Awards (or portions thereof) not assumed or substituted, options and stock appreciation rights will become fully vested and exercisable, all restrictions on restricted stock, restricted stock units, performance shares and performance units will lapse, and, with respect to such Awards with performance-based vesting (or portions thereof) not assumed or substituted, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and all other terms and conditions met, in each case unless specifically provided otherwise under the applicable award agreement or other written agreement between the participant and us or any of our parent or subsidiaries, as applicable. The administrator will not be required to treat all Awards, all Awards held by a participant, all Awards of the same type, or all portions of Awards similarly in the transaction. In addition, if an option or stock appreciation right (or portion thereof) is not assumed or substituted for in the event of our merger or change in control, the administrator will notify the participant in writing or electronically that such option or stock appreciation right (or its applicable portion) will be fully vested and exercisable for a period of time determined by the administrator in its sole discretion, and the option or stock appreciation right (or its applicable portion) will terminate upon the expiration of such period.

Additionally, the 2020 Plan provides that with respect to Awards granted to a non-employee director that are assumed or substituted for, if on the date of or following such assumption or substitution the non-employee director's status as a director of the Company or the successor corporation, as applicable, is terminated other than upon a voluntary resignation by the participant (unless such resignation is at the request of the acquirer), then as

of such date of termination, such non-employee director's Awards will be treated as described in the immediately preceding paragraph with respect to vesting acceleration (for clarity, as though the Awards were not assumed or substituted).

For purposes of the 2020 Plan, our "change in control" is defined in the 2020 Plan and generally includes, with certain exceptions as described in the 2020 Plan, a change in our ownership that occurs upon acquisition by a person, or persons acting as a group, of Shares resulting in such person(s) having more than 50% of the total voting power of our stock, or a change in our effective control due to a majority of the members of our Board being replaced during a 12-month period by Board members whose appointments or elections are not endorsed by the majority of the Board members before the date of appointment or election, or a change in a substantial portion of our assets that occurs when a person or persons acting as a group acquires or has acquired within 12 months our assets having a total gross fair market value equal to at least 50% of the total gross fair market value of all of our assets.

Termination or Amendment

The 2020 Plan was adopted by our Board and the Compensation Committee in April 2020 and most recently approved by our Board and its Compensation Committee in June 2020 to adjust the number of Shares that will be made available under the 2020 Plan, as discussed further above. The 2020 Plan will become effective upon the date our stockholders approve the 2020 Plan. The 2020 Plan is subject to stockholder approval within 12 months after the Board's adoption of the 2020 Plan. The 2020 Plan automatically will terminate 10 years from the effective date of the 2020 Plan, unless terminated earlier in accordance with the terms of the 2020 Plan. The administrator may terminate, alter, suspend or amend the 2020 Plan at any time, provided that we will obtain stockholder approval of any amendment to the 2020 Plan to the extent necessary and desirable to comply with any applicable laws. No amendment, alteration, suspension or termination of the 2020 Plan may materially impair the rights of any participant unless mutually agreed otherwise between the participant and the administrator.

Forfeiture of Awards

The 2020 Plan permits the administrator to specify in an award agreement that the participant's rights, payments, and benefits with respect to an Award will be subject to reduction, cancellation, forfeiture, recoupment, reimbursement, or reacquisition upon the occurrence of certain specified events, in addition to any otherwise applicable vesting or performance conditions of the award. The 2020 Plan also provides that Awards will be subject to our clawback policy as may be established and/or amended from time to time to comply with applicable laws (the "Clawback Policy"). The administrator may require a participant to forfeit, return or reimburse us all or a portion of the Award and any amounts paid under the 2020 Plan pursuant to the terms of the Clawback Policy or as necessary or appropriate to comply with applicable laws.

New Plan Benefits

Our executive officers and non-employee directors have an interest in this proposal because they are eligible to receive Awards under the 2020 Plan, including that non-employee directors are eligible to receive certain automatic awards as specified in our outside director compensation policy, as discussed above in the section titled "Director Compensation." If our stockholders approve the 2020 Plan at the Annual Meeting, then as of the date of the Annual Meeting and pursuant to our outside director compensation policy as most recently amended in June 2020, each individual who has continuously remained a non-employee director for at least four months through the date of the Annual Meeting automatically will be granted an Award of stock options under the 2020 Plan with a value of \$100,000 (generally determined based on its grant date fair value in accordance with U.S. generally accepted accounting principles, with any resulting fractional share rounded down) (the "Annual Awards"). The following table sets forth the grant date fair value of the Annual Awards to be granted to our non-employee directors on the date of the Annual Meeting, subject to approval of the 2020 Plan at the Annual

Meeting by the Company's stockholders, and the non-employee director's continued service on our Board of Directors through such date. The number of shares of our common stock that will be subject to these Annual Awards will not be known until their date of grant. If our stockholders do not approve the 2020 Plan at the Annual Meeting, then we will not have any stockholder-approved equity plan in effect under which we would be able to grant these Annual Awards.

Name of Individual or Group	Grant Date Fair Value of Stock Options (\$)	Number of Shares Subject to Stock Options (#) (1)
David Botstein, Ph.D.	100,000	—
William Ericson	100,000	—
Christian O. Henry	100,000	—
Randy Livingston	100,000	—
John F. Milligan, Ph.D.	100,000	—
Marshall Mohr	100,000	—
Kathy Ordoñez	100,000	—
Lucy Shapiro, Ph.D.	100,000	—
All current non-employee directors, as a group (8) people	800,000	

(1) The number of shares is not yet determinable, as described above.

Number of Awards Granted to Employees and Directors

The Awards that an employee, Board member or consultant may receive under the 2020 Plan is in the discretion of the administrator and therefore cannot be determined in advance. The following table sets forth the grant date fair value and number of shares of our stock subject (at grant) to awards granted under the 2010 Plan and 2010 Director Plan during our fiscal year 2019, with respect to restricted stock units to the individuals and groups set forth in the table below. For the year ended December 31, 2019, we did not grant any stock options due to the then in-process merger with Illumina.

Name	Number of Shares Subject to Restricted Stock Units (#)	Aggregate Grant Date Fair Value of Restricted Stock Units (\$)
Michael Hunkapiller, Ph.D. President and Chief Executive Officer	38,750	276,288
Susan K. Barnes, Executive Vice President and Chief Financial Officer	21,250	151,513
Michael Phillips, Senior Vice President of Research and Development (1)	15,500	112,240
All current executive officers, as a group (4 people)	85,000	608,811
All current directors, who are not executive officers, as a group (8 people)	—	—
All employees, including all current officers who are not executive officers, as a group	815,486	5,748,553

(1) Mr. Phillips resigned from his position with the Company on April 1, 2020 and is not eligible to receive awards under the 2020 Plan.

Summary of U.S. Federal Income Tax Consequences

The following summary is intended only as a general guide to the material U.S. federal income tax consequences of participation in the 2020 Plan. The summary is based on existing U.S. federal income tax laws and regulations, and there can be no assurance that those laws and regulations will not change in the future. The summary does not purport to be complete and does not discuss the tax consequences upon a participant's death, or

the provisions of the tax laws of any municipality, state or non-U.S. jurisdiction to which the participant may be subject. As a result, tax consequences for any particular participant may vary based on individual circumstances.

Incentive Stock Options

No taxable income is reportable when an incentive stock option is granted or exercised, although the exercise may subject the participant to the alternative minimum tax or may affect the determination of the participant's alternative minimum tax (unless the shares are sold or otherwise disposed of in the same year). If the participant exercises the option and then later sells or otherwise disposes of the shares acquired more than two years after the grant date and more than one year after the exercise date, the difference between the sale price and the exercise price generally will be taxed as capital gain or loss. If the participant exercises the option and then later sells or otherwise disposes of the shares before the end of the two- or one-year holding periods described above, he or she generally will have ordinary income at the time of the sale equal to the fair market value of the shares on the exercise date (or the sale price, if less) minus the exercise price of the option. For purposes of the alternative minimum tax, the difference between the option exercise price and the fair market value of the shares on the exercise date generally is treated as an adjustment item in computing the participant's alternative minimum taxable income in the year of exercise. In addition, special alternative minimum tax rules may apply to certain subsequent disqualifying dispositions of the shares or provide certain basis adjustments or tax credits for alternative minimum tax purposes.

Nonstatutory Stock Options

No taxable income is reportable when a nonstatutory stock option with a per share exercise price at least equal to the fair market value of a share of the underlying share on the date of grant is granted to a participant. Upon exercise, the participant will recognize ordinary income in an amount equal to the excess of the fair market value (on the exercise date) of the shares purchased over the exercise price of the exercised shares subject to the option. Any taxable income recognized in connection with the exercise of a nonstatutory stock option by an employee is subject to tax withholding by us. Any additional gain or loss recognized upon any later disposition of the shares generally would be capital gain or loss to the participant.

Stock Appreciation Rights

No taxable income is reportable when a stock appreciation right with a per share exercise price equal to at least the fair market value of a share of the underlying share on the date of grant is granted to a participant. Upon exercise, the participant generally will recognize ordinary income in an amount equal to the amount of cash received and the fair market value of any shares received. Any taxable income recognized in connection with the exercise of a stock appreciation right by an employee is subject to tax withholding by us. Any additional gain or loss recognized upon any later disposition of the shares generally would be capital gain or loss to the participant.

Restricted Stock, Restricted Stock Units, Performance Units and Performance Shares

A participant generally will not have taxable income at the time an award of restricted stock, restricted stock units, performance units or performance shares, are granted. Instead, he or she will recognize ordinary income in the first taxable year in which his or her interest in the shares underlying the award becomes either (i) freely transferable, or (ii) no longer subject to substantial risk of forfeiture. If the participant is an employee, such ordinary income generally is subject to tax withholding by us. However, the recipient of a restricted stock award may elect to recognize income at the time he or she receives the award in an amount equal to the fair market value of the shares underlying the award (less any cash paid for the shares) on the date the award is granted.

Medicare Surtax

A participant's annual "net investment income," as defined in Section 1411 of the Code may be subject to a 3.8% federal surtax (generally referred to as the "Medicare Surtax"). Net investment income may include capital

gain and/or loss arising from the disposition of shares subject to a participant's awards under the 2020 Plan. Whether a participant's net investment income will be subject to the Medicare Surtax will depend on the participant's level of annual income and other factors.

Section 409A

Section 409A of the Code provides certain requirements for nonqualified deferred compensation arrangements with respect to an individual's deferral and distribution elections and permissible distribution events. Awards granted under the 2020 Plan with a deferral feature will be subject to the requirements of Section 409A of the Code. Section 409A also generally provides that distributions must be made on or following the occurrence of certain events (e.g., the individual's separation from service, a predetermined date, or the individual's death). For certain individuals who are key employees, subject to certain exceptions, Section 409A requires that distributions in connection with his or her separation from service commence no earlier than six months after such separation from service.

If an award granted under the 2020 Plan is subject to and fails to satisfy the requirements of Section 409A of the Code, the recipient of that award may recognize ordinary income on the amounts deferred under the award, to the extent vested, which may be prior to when the compensation is actually or constructively received. Also, if an award that is subject to Section 409A fails to comply with Section 409A's provisions, Section 409A imposes an additional 20% federal income tax on compensation recognized as ordinary income, as well as interest on such deferred compensation. Certain states, such as California, have enacted laws similar to Section 409A which impose additional taxes, interest and penalties on nonqualified deferred compensation arrangements. We will also have withholding and reporting requirements with respect to such amounts. In no event will we or any of our parent or subsidiaries have any obligation under the terms of the 2020 Plan to reimburse, indemnify, or hold harmless a participant for any taxes, interest or penalties imposed, or other costs incurred, as a result of Section 409A.

Tax Effect for the Company

We generally will be entitled to a tax deduction in connection with an award under the 2020 Plan in an amount equal to the ordinary income realized by a participant and at the time the participant recognizes such income (for example, the exercise of a nonstatutory stock option). Special rules limit the deductibility of compensation paid to our chief executive officer and other "covered employees" within the meaning of Code Section 162(m). Under Code Section 162(m), the annual compensation paid to any of these specified employees will be deductible only to the extent that it does not exceed \$1,000,000.

Required Vote

Approval of the 2020 Plan and its material terms requires the affirmative "**FOR**" vote of a majority of the shares present remotely or represented by proxy entitled to vote at the 2020 Annual Meeting.

Board Recommendation

We believe strongly that the approval of the 2020 Plan is essential to our continued success. Our employees are one of our most valuable assets. Stock options, restricted stock units and other awards provided under the 2020 Plan are vital to our ability to attract and retain outstanding and highly skilled individuals. Such awards also are crucial to our ability to motivate employees to achieve our goals. For the reasons stated above, stockholders are being asked to approve the 2020 Plan and its material terms.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE APPROVAL OF THE PROPOSAL TO ADOPT THE 2020 EQUITY INCENTIVE PLAN.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Policies and Procedures for Related Party Transactions

We have adopted a formal written policy that our executive officers, directors, nominees for election as directors, beneficial owners of more than 5% of any class of our common stock and any member of the immediate family of any of the foregoing persons, are not permitted to enter into a related party transaction with us, where the aggregate amount involved will or may be expected to exceed \$120,000 in any calendar year, without the prior consent of our Audit Committee, subject to the pre-approval exceptions described below. If advance approval is not feasible then the related party transaction will be considered at the Audit Committee's next regularly scheduled meeting. In approving or rejecting any such proposal, our Audit Committee considers the facts and circumstances available and deemed relevant by our Audit Committee, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related party's interest in the transaction. Our Audit Committee has reviewed certain types of related party transactions that it has deemed pre-approved even if the aggregate amount involved will exceed \$120,000, including employment of executive officers, director compensation, certain transactions with other organizations involving the purchase or sale of products or services in the ordinary course of business, transactions where all stockholders receive proportional benefits, transactions involving competitive bids, regulated transactions and certain banking-related services.

Related Party Transactions

In addition to the compensation arrangements, including employment, termination of employment and change in control arrangements discussed above, during 2019, we were party to the following transactions in which the amount involved exceeded or will exceed \$120,000, and in which any director, executive officer or holder of more than 5% of any class of our voting stock, or any member of the immediate family of or entities affiliated with any of them, had or will have a material interest.

Employment of Related Persons

We employ Kathryn Keho as our Senior Director, Market Development, who is the daughter of Dr. Michael Hunkapiller, our Chief Executive Officer and President. Ms. Keho's annual base salary was \$257,500 for the year ended December 31, 2019.

Ms. Keho was granted the following options and restricted stock units during the year ended December 31, 2017, 2018 and 2019, respectively:

<u>Grant Date</u>	<u>All Other Option Awards: Number of Securities Underlying Options (#) (1)</u>	<u>All Other Awards: Number of Shares of Stock or Units (#) (2)</u>	<u>Exercise or Base Price of Option Award (\$)</u>
2/15/2017	20,000		5.27
2/15/2018	20,000		2.54
2/15/2019	—	5,000	7.13
3/15/2019	—	2,500	7.36

- (1) The options vest at a rate of 1/48th of the total number of shares subject to the option each month over the next four years, subject to continued service with us.
- (2) The RSUs vest on the one-year anniversary of the date of grant of the RSU awards, subject to continued service with us.

We believe that Ms. Keho's compensation, which is periodically reviewed by the Compensation Committee, is comparable with compensation paid to other employees with similar levels of responsibility and years of experience.

Stanford University

Randy Livingston is the Vice President for Business Affairs and Chief Financial Officer of Stanford University. Lucy Shapiro, Ph.D., is the Director of the Beckman Center for Molecular and Genetic Medicine at Stanford University's School of Medicine. For the years ended December 31, 2019, 2018, we recognized revenue relating to Stanford University with a total value of approximately \$249,000 and \$241,000, respectively. As of December 31, 2019 and 2018, \$58,000 and \$46,000, respectively, out of our accounts receivable balance of \$15,266,000 and \$8,595,000, respectively, related to Stanford University.

Calico Life Sciences LLC

David Botstein, Ph.D. is the Chief Scientific Officer of Calico Life Sciences, LLC. For the years ended December 31, 2019 and 2018, we recognized revenue relating to Calico Life Sciences, LLC with a total value of approximately \$87,000 and \$67,000, respectively. As of both December 31, 2019 and 2018, \$0 of our accounts receivable balance of \$15,266,000 and \$8,595,000, respectively, related to Calico Life Sciences, LLC.

Other Transactions

We have granted stock options and restricted stock units to our named executive officers and certain of our directors. See the section titled "Executive Compensation – Outstanding Equity Awards at 2019 Year-End" for a description of these stock options and restricted stock units. In the ordinary course of business, we enter into offer letters and employment agreements with our executive officers. We have also entered into indemnification agreements with each of our directors and officers. The indemnification agreements and our certificate of incorporation and bylaws require us to indemnify our directors and officers to the fullest extent permitted by Delaware law.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information as of June 1, 2020 with respect to the beneficial ownership of our common stock by (i) each person the Company believes beneficially holds more than 5% of the outstanding shares of the Company's common stock based solely on the Company's review of SEC filings; (ii) each director and nominee; (iii) each named executive officer listed in the table entitled "Summary Compensation Table" under the section entitled "Executive Compensation"; and (iv) all current directors and executive officers as a group. As of June 1, 2020, 154,239,745 shares of our common stock were issued and outstanding. Unless otherwise indicated, all persons named as beneficial owners of our common stock have sole voting power and sole investment power with respect to the shares indicated as beneficially owned.

<u>Name and address of beneficial owner (1)</u>	<u>Number of Shares Owned (2)</u>	<u>Right to Acquire Shares (3)</u>	<u>Total Beneficial Ownership</u>	<u>Percent of Class (4)</u>
5% Stockholders:				
BlackRock Inc. (5)	12,033,320	—	12,033,320	7.8%
Vanguard Group, Inc. (6)	7,876,485	—	7,876,485	5.1%
Named executive officers and directors:				
Michael Hunkapiller, Ph.D. (7)	4,241,610	2,794,576	7,036,186	4.6%
William Ericson (8)	4,598,397	212,500	4,810,897	3.1%
David Botstein, Ph.D.	—	185,000	185,000	*
Christian O. Henry	—	23,333	23,333	*
Randy Livingston	—	217,500	217,500	*
John F. Milligan, Ph.D.	—	160,000	160,000	*
Marshall Mohr	—	210,000	210,000	*
Lucy Shapiro, Ph.D.	101,666	83,334	185,000	*
Kathy Ordoñez	34,893	387,859	422,752	*
Susan K. Barnes	702,938	1,173,173	1,876,111	1.2%
Michael Phillips (9)	228,653	543,706	772,359	*
All current directors and executive officers as a group (12 people) (10)	9,712,114	5,949,667	15,661,781	10.2%

* Represents beneficial ownership of less than 1%.

- (1) Unless otherwise indicated, all persons named as beneficial owners have sole voting power and sole investment power with respect to the shares indicated as beneficially owned and the address of each beneficial owner listed on the table is c/o Pacific Biosciences of California, Inc., 1305 O'Brien Drive, Menlo Park, California 94025.
- (2) Excludes shares that may be acquired through the exercise of outstanding stock options or the vesting of RSUs and PSUs.
- (3) Represents shares issuable upon exercise of options exercisable within 60 days after June 1, 2020, RSUs and PSUs that vest within 60 days after June 1, 2020; however, unless otherwise indicated, these shares do not include any options, RSUs and PSUs awarded after June 1, 2020.
- (4) For purposes of calculating the Percent of Class, shares that the person or entity had a right to acquire are deemed to be outstanding when calculating the Percent of Class of such person or entity.
- (5) Based on information taken from Schedule 13G filed on February 10, 2020 reporting on ownership as of December 31, 2019 by BlackRock, Inc., which has sole voting power as to 11,797,669 of these shares and sole dispositive power as to 12,033,320 of these shares. The address of this entity is 55 East 52nd Street, New York, NY 10055.
- (6) Based on information taken from Schedule 13G filed on February 11, 2020 reporting on ownership as of December 31, 2019 by Vanguard Group, Inc., which has sole voting power as to 292,319 of these shares, shared voting power as to 22,858 of these shares, sole dispositive power as to 7,587,520 of these shares and

shared dispositive power as to 288,965 of these shares. The address of this entity is 100 Vanguard Blvd., Malvern, PA 19355.

- (7) Number of shares owned includes 1,868,395 shares held of record by funds affiliated with Alloy Ventures where Dr. Hunkapiller is a General Partner. Dr. Hunkapiller disclaims beneficial ownership of any shares held of record by funds affiliated with Alloy Ventures except to the extent of his pecuniary interest therein.
- (8) Number of shares owned includes 4,598,397 shares held of record by funds affiliated with Mohr Davidow Ventures where Mr. Ericson is a Managing Partner. Mr. Ericson disclaims beneficial ownership of any shares held of record by funds affiliated with Mohr Davidow Ventures except to the extent of his pecuniary interest therein. Shares of record includes (i) 4,318,915 shares held by MDV VII LP as nominee for MDV VII MDV VII Leaders Fund LP MDV ENF VIIA; (ii) 201,857 shares held by MDV VII Leaders Fund LP; (iii) 77,625 shares held by MDV ENF VIIA LP AND MDV ENF VIIB LP. The address of these entities is c/o Mohr Davidow Ventures, 3000 Sand Hill Road, Building 3, Suite 290, Menlo Park, CA 94025. Each of Jonathan Feiber, Nancy Schoendorf, and Seventh may be deemed to share voting and dispositive power over the shares held by MDV.
- (9) Mr. Phillips retired from his role as Senior Vice President of Research and Development on April 1, 2020. Number of shares owned includes shares issuable upon exercise of options exercisable within 60 days after April 1, 2020.
- (10) Number of shares owned does not include shares owned by Mr. Phillips because Mr. Phillips retired from his role as Senior Vice President of Research and Development on April 1, 2020. Includes shares owned by Dr. Denis Zaccarin and Mr. Chris Seipert as of June 1, 2020, both of whom were appointed as executive officers of the Company effective April 1, 2020.

EXECUTIVE OFFICERS

Biographical data for each of our executive officers, including their ages, as of June 1, 2020, is set forth below, except Dr. Hunkapiller's biography, which is included under the heading "Board of Directors and Committees of the Board" above.

Executive Officers

Susan K. Barnes, age 66, joined us in 2010 as our Senior Vice President and Chief Financial Officer and was promoted to Executive Vice President and Chief Financial Officer in December 2010. From 1997 to 2005, she was senior vice president, finance and chief financial officer of Intuitive Surgical, Inc. Ms. Barnes has served on several boards of directors of public and private companies, including Northstar Neuroscience, Inc. from February 2006 to December 2009, where she also served as Audit Committee chair, and RAE Systems Inc. from September 2004 to May 2006, where she served as chair of the Audit Committee. Ms. Barnes holds an A.B. from Bryn Mawr College and an M.B.A. from the Wharton School, University of Pennsylvania. Ms. Barnes will retire from her role as our Executive Vice President and Chief Financial Officer in August 2020.

Denis Zaccarin, age 55, joined us in 2004 as Director of Engineering. He was promoted to VP of Engineering in 2010 and VP of Semiconductor Integration Devices in 2012. Dr. Zaccarin was promoted to Senior Vice President, Research and Development in April 2020. Prior to joining Pacific Biosciences, Dr. Zaccarin held various engineering and leadership roles at Bell-Northern Research, Nortel, Cambrian Systems, ONI systems and Ciena. Dr. Zaccarin holds a B.Sc.E and a M.Sc.E from Laval University and a Ph.D in Electrical Engineering, Optics from the University of Ottawa.

Chris Seipert, age 44, joined us in June 2009 as Senior Engineer, Manufacturing and has held various roles at the Company including Senior Director, Field Service and Manufacturing Instrument Engineering from December 2012 to July 2016, Vice President, Instrument Manufacturing and Field Service Engineering from July 2016 to October 2017, Vice President, Service and Support from October 2017 to December 2019 and Vice President, Sales, Service & Support, EMEA and America since December 2019. Mr. Seipert holds a B.S. in Physics and a M.S. in Engineering from San Jose State University.

EXECUTIVE COMPENSATION

Compensation Committee Report

The following report of the Compensation Committee shall not be deemed to be “soliciting material” or to otherwise be considered “filed” with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 (the “Securities Act”) or the Exchange Act except to the extent that the Company specifically incorporates it by reference into such filing.

The Compensation Committee has reviewed and discussed with management the disclosures contained in the following section entitled “Compensation Discussion and Analysis”. Based on this review and discussion, the Compensation Committee recommended to the Board of Directors that the section entitled “Compensation Discussion and Analysis” be included in this Proxy Statement for the Annual Meeting.

Members of the Compensation Committee

William Ericson (Chair)

Christian O. Henry

Marshall Mohr

John F. Milligan, Ph.D.

Compensation Discussion and Analysis

The following discussion and analysis of compensation arrangements of our named executive officers should be read together with the compensation tables and related disclosures set forth below. This discussion contains forward-looking statements that are based on our current considerations, expectations and determinations regarding future compensation programs. The actual amount and form of compensation and the compensation programs that we adopt may differ materially from current or planned programs as summarized in this discussion.

For the year ended December 31, 2019, our named executive officers were:

Name	Position
Michael Hunkapiller, Ph.D. (1)	President and Chief Executive Officer
Susan K. Barnes (2)	Executive Vice President, Chief Financial Officer
Michael Phillips (3)	Senior Vice President, Research & Development

- (1) Dr. Hunkapiller will retire from his role as Chief Executive Officer and President by the end of fiscal year 2020.
- (2) Ms. Barnes will retire from her role as Executive Vice President and Chief Financial Officer in August 2020.
- (3) Mr. Phillips’s role as Senior Vice President, Research and Development terminated on April 1, 2020, in connection with his retirement. He transitioned to a consultant role as of the same date. His consulting services are scheduled to end in March 2021.

Recent “Say-on-Pay” Vote

We most recently held a nonbinding, stockholder advisory vote to approve the compensation of our named executive officers, commonly referred to as a “say-on-pay” vote in May 2017. We received favorable support with over 91%, a majority of stockholder votes cast approving the proposal. As a result, the Compensation Committee retained the same general approach for setting pay at the Company for 2019, with the exception of certain changes made for 2019 in light of the then pending acquisition of the Company by Illumina. In addition, the stockholders approved our “say-on-pay frequency of every three years by majority vote. The Compensation Committee considers the outcome of these voting decisions when considering future compensation decisions

Compensation Philosophy and Objectives

Our executive compensation program is overseen and administered by the Compensation Committee of which each member is an independent member of our Board of Directors as defined in the listing rules.

The guiding principle in the development of our compensation strategy is to create and nurture a pay-for-performance culture, where contributions to enhancing stockholder value have the potential to be matched with appropriate financial rewards. The objectives of our compensation program are to:

- attract the best and brightest employees;
- motivate successful execution of our corporate objectives;
- ensure that broad-based compensation programs are aligned with company objectives that when achieved will promote an increase in the value of the Company for our stockholders; and
- ensure retention of key staff.

Our executive compensation program consists primarily of salary, incentive cash and equity compensation (which historically, we have issued in the form of stock options, but in 2019 included restricted stock units and performance-based restricted stock units). Likewise, we maintain compensation programs broadly for the majority of employees of the organization to align with the variable cash and equity pay component already provided to executive-level employees. We typically make new equity award grants annually and consider adjustments to the components of our executive compensation program in connection with our yearly compensation review. These determinations are based in part upon market analysis performed by the independent compensation consultant retained by our Compensation Committee as well as by the Company's business priorities and in consideration of the Company's resources.

Role of Compensation Committee and Board

The Compensation Committee has the authority to review and approve the compensation of all of our executive officers, other than our Chief Executive Officer, whose compensation is recommended by the Compensation Committee and approved by our Board of Directors. From time to time, the Compensation Committee, in its discretion, may also recommend for approval by the Board of Directors any elements of compensation of other executive officers, to the extent that the Compensation Committee deems appropriate or advisable. For example, for 2019, the Board approved the reinstatement of the Chief Financial Officer's base salary together with that of the Chief Executive Officer. The Compensation Committee does not have a formula for setting pay and considers a number of factors including experience, role criticality, external market data, internal comparisons, and the future contributions of the executive when setting the level and structure of pay. The Compensation Committee may form and delegate authority to subcommittees when appropriate.

Role of Compensation Consultant

For fiscal year 2019, our Compensation Committee continued the engagement of Radford, which is part of the Rewards Solutions practice at Aon plc., as its compensation consultant to advise the Compensation Committee in matters related to executive compensation and broader employee compensation programs, including the prevailing market compensation environment and compensation trends. The Compensation Committee provided Radford with instructions regarding the goals of our executive compensation program and the parameters of the competitive review of executive officer compensation packages that it was to conduct. In particular, the Compensation Committee instructed Radford to analyze whether the compensation packages of our executive officers were consistent with our compensation philosophy and competitive relative to market. The Compensation Committee further instructed Radford to evaluate the following components to assist the Compensation Committee in establishing fiscal year 2019 compensation: base salary; target and actual annual incentive compensation; target and actual total cash compensation (base salary and annual incentive

compensation); long-term incentive compensation (equity awards); target and actual total direct compensation (base salary, annual incentive compensation and long-term incentive compensation); and beneficial ownership of our common stock.

In late 2018, Radford provided to the Compensation Committee a detailed market analysis using compensation survey data for the technology and life sciences industries generally within:

- a revenue range of \$50 million to \$300 million; and
- a market capitalization between \$200 million and \$1.5 billion

to reflect the market for talent at companies of a similar profile as the Company.

The Compensation Committee does not rely on a specific named peer group at this time, instead relying on custom survey data from Radford Global Life Science Survey and Radford Technology Survey (the “Survey Data”) to examine market information that is specific to the technical and scientific nature of the role requirements for our named executive officers. This information is used by the Compensation Committee to assist in determining the overall level of pay including base salary, target variable cash incentives, and equity awards, as applicable, for the named executive officers.

Radford reports directly to the Compensation Committee and the Compensation Committee maintains sole authority to direct Radford’s work. Radford provides general observations regarding our executive and broader employee compensation programs. The Compensation Committee meets with Radford in executive session, without management to address various matters under its charter.

Role of Executive Officers in Compensation Decisions

For executive officers other than our Chief Executive Officer and Chief Financial Officer, our Compensation Committee has historically sought and considered input from our Chief Executive Officer and Chief Financial Officer regarding our executive officers’ responsibilities, performance, and compensation. Our Chief Executive Officer and Chief Financial Officer recommend base salary, target variable cash incentive opportunities, and equity award levels for our other executive officers (which also are compensation elements that are provided broadly to the majority of our employees), and advise our Compensation Committee regarding the executive compensation program’s ability to attract, retain and motivate executive talent. Our Compensation Committee considers our Chief Executive Officer’s and Chief Financial Officer’s recommendations as well as any other relevant factors (for example, market data, Company performance, internal equity, and the executive’s experience, tenure, skills, and historical and future expected contributions), and approves the specific compensation for all such executive officers. Our Compensation Committee discusses with the Chief Executive Officer the core operational and financial metrics to drive the business forward, and how various forms of variable and incentive compensation can be applied at the executive level to achieve our goals. Our Compensation Committee meets in executive session, without our Chief Executive Officer and Chief Financial Officer, when discussing or making recommendations regarding their compensation.

Components of our Executive Compensation Program

Compensation of Our Named Executive Officers

The components of our executive compensation program through fiscal 2019 for named executive officers other than our Chief Executive Officer and Chief Financial Officer, as well as our then Chief Commercial Officer in 2018, have consisted primarily of base salaries and incentive cash bonuses, equity awards and broad-based benefits programs. We combine short-term compensation components, namely base salaries and variable cash incentives with long-term equity incentive compensation components to provide an overall compensation structure that is designed to financially reward executives for creating additional value for our stockholders,

attract and retain key executives and provide incentive for the achievement of short-term and long-term corporate objectives. The Compensation Committee and the Board of Directors believe these elements are appropriate components of executive compensation and are consistent in the technology and life sciences industries.

In 2013, our Chief Executive Officer and Chief Financial Officer proposed, and the Board of Directors approved, a pay program that eliminated base salaries and incentive cash compensation for the Chief Executive Officer and Chief Financial Officer to help the company manage the cash expenses. In evaluating the compensation flexibility afforded by these executives, the Compensation Committee, in consultation with the independent compensation consultant developed a program that was comprised of equity awards and the opportunity to participate in standard employee benefits based on delivering a market-based compensation program, aligned with the long-term value created for our stockholders. The structures negotiated and proposed by the Compensation Committee were first implemented in 2013 as a one-year policy. The same arrangements related to cash compensation continued since then through 2018. Given the numerous years during which Dr. Hunkapiller and Ms. Barnes agreed to forgo cash compensation, and given significant changes anticipated in connection with the then pending merger with Illumina, as previously disclosed, the Board decided to revisit the compensation arrangements for these executive officers. As discussed further below, the Board reinstated base salary and cash incentive opportunities as additional key elements of compensation for our Chief Executive Officer and Chief Financial Officer under our 2019 executive compensation program.

We do not provide a pension plan for our named executive officers or for the majority of our employees and none of our named executive officers participate in a Company sponsored nonqualified deferred compensation plan. We provide a pension plan to employees at certain foreign subsidiaries in order to remain competitive or to conform to local statutory requirements.

The Compensation Committee expects to review the structure of our executive compensation program annually as part of the normal course review of executive compensation. The Board of Directors has the authority to approve changes to such compensation of the Chief Executive Officer

Base Salary

As previously disclosed, our Board expected to reinstate base salaries and target bonus opportunities for our Chief Executive Officer and Chief Financial Officer as part of its annual executive compensation review process. The Board reinstated these elements of compensation for our Chief Executive Officer and Chief Financial Officer in light of the then pending transaction with Illumina, and the desire to return to more standard market practices with respect to executive compensation by providing a mix of cash and equity compensation to these executives. In recommending to the Board the amount of the base salaries for the Chief Executive Officer and Chief Financial Officer, the Compensation Committee engaged Radford to review relevant Survey Data, as well as considered subjective assessments of each of the Chief Executive Officer's and Chief Financial Officer's position, experience, responsibilities, and performance. In addition, due to our then obligations under the agreement and plan of merger entered into with Illumina, the changes were undertaken following consultation with, and approval from Illumina.

For 2019, base salaries were provided to our named executive officers to recognize each such executive's day-to-day contributions and in order to maintain an executive compensation program that is competitive and reflects appropriate market practices. The Compensation Committee determined base salaries for each of these named executive officers based on the executive's role and responsibilities, a review of any applicable market data and individual job performance. In its review of applicable market data, the Compensation Committee utilized the Survey Data. The Compensation Committee set the annual salaries for these named executive officers in consideration of the market data and subjective assessments of each named executive officer's position, experience, responsibilities, and performance. The resulting annual base salaries for these named executive officers (other than our Chief Executive Officer and Chief Financial Officer) generally aligned at approximately the 50th percentile relative to the 2018 market data reviewed. For the year ended December 31, 2019, the base salary for Mr. Phillips was \$355,350.

As part of its executive compensation review process for 2019, on February 15, 2019, the Board of Directors decided to reinstate base salaries and target bonus opportunities of our Chief Executive Officer and Chief Financial Officer, effective January 1, 2019. As part of its regular review process for our other executive officer, the Compensation Committee also adjusted our Senior Vice President, Research & Development's base salary for 2019 based on an assessment of Survey Data for such role with the assistance of Radford.

The salary for the Chief Executive Officer and Chief Financial Officer, and the Senior Vice President, Research & Development for 2019 were as follows:

<u>Name</u>	<u>2019 (\$)</u>	<u>2018 (\$)</u>	<u>Change (%)</u>
Michael Hunkapiller, Ph.D.	582,900	1	N/A
Susan K. Barnes	401,500	1	N/A
Michael Phillips	355,350	345,000	3%

Variable Cash Incentives of Our Named Executive Officers

Variable cash incentives, structured as a percentage of base salary, are intended to correlate executive compensation with important corporate objectives that the Board of Directors and our Compensation Committee believe appropriately position the Company for value creation and thereby increase alignment of executives' interests with those of our stockholders. The achievement of such objectives provides our named executive officers the opportunity to earn total cash compensation that is generally aligned at approximately the 50th percentile of the market data reviewed.

Opportunities for each named executive officer in 2019 were as set forth in the table below. Dr. Hunkapiller's and Ms. Barnes' target bonus opportunities were established in connection with the reinstatement of annual base salaries, and based on similar factors considered in determining their base salaries, as described further above. Mr. Phillips' target bonus opportunity (as percentage of base salary) remained the same as 2018.

<u>Name</u>	<u>Target Bonus Opportunity (as a % of salary)</u>
Michael Hunkapiller, Ph.D.	100%
Susan K. Barnes	65%
Michael Phillips	45%

Variable cash incentives offered to these named executive officers during 2019 afforded the opportunity for the executives to earn awards based on the achievement of certain corporate operational, product performance, and financial metrics, each with separate, varied weightings. These performance goals included financial measures, research and development, quality related objectives, marketing efforts and certain operational goals. Due to the goals being closely tied to the Company's business strategy or other confidential information of the Company, any additional information otherwise considered material regarding performance goal targets were not provided in order to avoid competitive harm to the Company's business (and ultimately to the Company's stockholders) from such disclosures.

Generally, performance goals are comprised of components that are evaluated independently and have a minimum threshold of achievement required in order to receive any payout, up to a maximum of 125% payout for maximum achievement, and 100% payout at target achievement with points between the minimum, target and maximum achievement generally calculated using a linear ratio. Typically, the Chief Executive Officer provides an evaluation of the Company's actual performance against the performance goals and makes a recommendation for the funding of the plan and the individual awards other than his own award. Based on the Compensation Committee's assessment, and the Board's assessment with respect to the Chief Executive Officer, the final awards are determined, making adjustments up or down for the actual incentive cash paid for each of these named executive officers, to reflect the individual's contributions to the Company's goals. During 2019,

approximately 89.81% of the Company objectives were achieved, resulting in executives receiving 89.81% of their target variable cash opportunity. Each of the objectives with respect to the 2019 incentive bonuses were aggressive, but attainable. Consistent with prior years, we established these 2019 objectives to be stretch goals that are intentionally challenging such that performance at target would require significant achievements across multiple performance criteria. For example, in each of the prior two years, the corporate objectives under our incentive cash program paid out at less than the target levels, as shown in the table below:

<u>Fiscal Year</u>	<u>Percentage of Corporate Objectives Achieved</u>	<u>Bonus Payout as a Percentage of Target Bonus Opportunity</u>
2019	90%	90%
2018	46%	46%
2017	17%	17%

The Compensation Committee believes that this approach appropriately motivates the participants to deliver on the in-year operating performance to earn additional cash and equity compensation. The annual goals are set by the Compensation Committee and approved by the Board of Directors and are aligned with the Company's strategic plan.

Similar to 2019, the 2020 incentive plan for all of our named executive officers will be based on the achievement of corporate operational and financial metrics. The goals and objectives we have established are aggressive, but attainable, and are based on goals we believe align the compensation of our senior management team and executives with the priorities for the Company that we anticipate will drive additional value for our stockholders. The Company must meet the target level of performance for the named executive officers to earn the target award. Our Chief Executive Officer may recommend adjustments to these awards other than for himself although the Compensation Committee retains the sole authority to approve awards for the named executive officers under the plan. For 2020, any awards under the plan are expected to be paid only in cash.

Equity Incentives

We believe that equity awards more closely align the interests of our key employees with the development of long-term value for our stockholders. Historically, the Compensation Committee has used stock options, time-based restricted stock units (RSUs) or performance-based restricted stock units (PSUs) to align executives' interest with that of our stockholders, provided that the Compensation Committee made certain one-time changes to the executive compensation program for 2019 in light of the then pending merger with Illumina.

We maintain a stock option granting policy, pursuant to which stock options granted to our employees generally become effective on the first 15th day of the month to occur following approval of the equity award by the Compensation Committee (or the Board of Directors, as applicable). Any equity awards to be granted to newly hired employees generally are not considered for approval until at least the month following the month in which employment begins. If any equity awards are granted to continuing employees, the equity awards generally will not become effective until the first 15th day of the month to occur following approval of the grant. The Compensation Committee has delegated authority to an Equity Award Grant Committee consisting of our Chief Executive Officer, Chief Financial Officer, Vice President of Human Resources and General Counsel, to approve equity awards covering shares of our common stock, within the range of guidelines approved by the Board or Compensation Committee (based on job grade, job title, responsibility level, seniority level and/or other factors) and pursuant to our stock option granting policy approved by the Board (including any revision thereto approved by the Board or a committee thereof), to newly-hired employees who are below the level of vice president (or equivalent title) and who are not subject to Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

In determining equity awards for named executive officers, the Compensation Committee and the Board of Directors consider the Survey Data provided by Radford outlining equity compensation practices in the

technology and life sciences industries, including the size of the awards as a percent of the Company as well as on a grant date value basis. This information as well as overall company dilution are considered when determining any grants to our named executive officers. The Compensation Committee also considers the realized or unrealized value of prior equity awards. There is no set formula for weighting these factors given the critical nature of each role to the Company, and how this might vary from roles at similarly situated companies.

Equity awards to our named executive officers are considered by the Compensation Committee additionally in the context of the total compensation mix that may be issued between salary, cash incentives and long-term compensation. The Compensation Committee also considers the criticality of these roles to the Company as well as the retention objectives for maintaining leadership stability for leading the business forward. Generally, compensation to the named executive officers is designed to deliver pay in the range around the 50th percentile.

In early 2019, the Compensation Committee and the Board of Directors considered equity award grants for our named executive officers. For 2019, given the anticipated timeframe of the pending merger with Illumina, the Compensation Committee approved the use of time-based restricted stock units (RSUs) only. The Compensation Committee believed that RSUs would be appropriate to promote retention during a critical period leading up to the anticipated completion of the merger with Illumina. The Compensation Committee also considered that notwithstanding the introduction of PSUs in the executive compensation program in 2018, PSUs under the 2019 executive compensation program would not be appropriate given less than a full, one-year period before completion of the anticipated merger with Illumina. Moreover, after considering that changes to the executive compensation program may be warranted following any completion of a merger with Illumina, the Compensation Committee approved for 2019 RSUs with a lesser value and shorter vesting schedule than otherwise may have been contemplated under circumstances absent the pending transaction with Illumina. The RSUs granted to our named executive officers in 2019 were targeted to deliver approximately 25% of target annual grant levels and are scheduled to vest in a single tranche after 12 months, approximately 1/4 of the company's typical 4-year vesting schedule. Following the grant of RSUs in February 2019 to our named executive officers, the Compensation Committee approved an additional grant of RSUs to Mr. Phillips. The Compensation Committee considered the importance of retaining key employees, including Mr. Phillips, while the merger with Illumina was pending.

The following table sets forth the number of shares of our common stock subject to the RSUs granted to our named executive officers for the year ended December 31, 2019:

<u>Name</u>	<u>Grant date</u>	<u>Number of shares subject to RSUs</u>
Michael Hunkapiller, Ph.D.	2/15/2019	38,750
Susan K. Barnes	2/15/2019	21,250
Michael Phillips	2/15/2019	8,000
Michael Phillips	3/15/2019	7,500

Insider Trading Policy; Prohibition on Short Sales, Hedging & Pledging

Directors and employees of the Company, including executive officers, are prohibited by the Company's Insider Trading Policy from: (1) engaging in short sales of Company securities; or (2) engaging in transactions in publicly traded options, such as puts and calls, and other derivative securities with respect to the Company's securities. Directors and employees of the Company, including executive officers, are also prohibited by the Insider Trading Policy from pledging Company securities as collateral for loans.

Clawback Policy

On April 9, 2020, we adopted a clawback policy applicable to our executive officers. If the Compensation Committee determines that an executive officer's gross negligence, intentional misconduct or fraud caused or partially caused us to restate our financial statement(s) due to a material error in such statement(s), under certain

circumstances the Compensation Committee has the authority and discretion to, within a period of time following the restatement, to require the executive officer to repay incentive compensation that would not have been payable based on the restated financial results. Incentive compensation for purposes of this policy means an executive officer's cash-based incentive or performance-based equity compensation paid or payable in whole or in part based on achievement of our financial or operating performance. The performance-based equity compensation does not include awards that vest solely based on continued service. Pursuant to its charter, the Compensation Committee has the authority to review, adopt, amend, terminate, and oversee our clawback policy if and as the Compensation Committee deems necessary or appropriate as well as if required by law.

Benefits

We provide the following benefits to our named executive officers on the same basis provided to our employees:

- health, dental and vision insurance;
- health savings account (HSA);
- life, travel accident, and accidental death and dismemberment insurance;
- a 401(k) plan;
- short-term and long-term disability insurance;
- health care, dependent care and commuter flexible spending accounts;
- an employee assistance program; and
- an employee stock purchase plan.

Change in Control Severance Benefits

We have entered into change in control severance agreements with each of our named executive officers as described further below under the section titled "Employment Agreements and Change in Control Arrangements." It is expected that from time to time, we would consider the possibility of an acquisition by another company or other change in control event. We recognize that the occurrence or possibility of such a transaction could be a distraction to the named executive officers and could cause the individual to consider alternative employment opportunities. We believe that it is important to provide these individuals with severance benefits upon a qualifying termination in connection with a change in control to secure our named executive officers' continued services to us notwithstanding the occurrence, possibility or threat of a change in control, provide them with an incentive to maximize our value in connection with a change in control for the benefit of our stockholders, and provide them with enhanced financial security. These change in control severance arrangements generally do not affect the determination of our named executive officers' key compensation elements.

Tax Considerations

We have not provided any named executive officer or director with a gross-up or other reimbursement for tax amounts the executive might pay pursuant to Section 280G or Section 409A of the Internal Revenue Code of 1986, as amended (or the "Code"). Section 280G and related Code sections provide that executive officers, directors who hold significant stockholder interests and certain other service providers could be subject to significant additional taxes if they receive payments or benefits in connection with a change in control that exceeds certain limits, and that we or our successor could lose a deduction on the amounts subject to the additional tax. Code Section 409A also imposes additional significant taxes on the individual in the event that an executive officer, director or service provider receives "deferred compensation" that does not meet the requirements of Code Section 409A.

In 2019, due to the limitations of Code Section 162(m), we generally would have received a federal income tax deduction for compensation paid to our Chief Executive Officer and to certain other highly compensated employees only if the compensation was less than \$1,000,000 per person during the year. As a result of the Tax Cuts and Jobs Act of 2017, the ability to rely on the “performance-based” compensation exception under Code Section 162(m) was eliminated in 2017. Thus, following the effectiveness of this change, we generally will not be able to take a deduction for any compensation paid to our named executive officers and certain other employees in excess of \$1,000,000. We did not structure our compensation for our named executive officers to qualify as performance-based compensation under Code Section 162(m). We accumulated net operating losses over several years and could not currently benefit from deductions we might otherwise be able to take if we did qualify compensation as performance-based under Code Section 162(m). Further, Code Section 162(m) generally had required a certain rigidity to qualify compensation as performance-based and we believed that it was in the Company’s best interest to retain flexibility and to structure programs in a manner to incentivize our executives to drive long-term stockholder value. Nonetheless, our Compensation Committee maintained for 2019, and intends to continue to maintain, an approach to executive compensation that strongly links pay to performance.

Compensation Risk Assessment

At the direction of the Compensation Committee, in conjunction with a compensation consultant’s assessment, we previously reviewed our compensation practices and policies and our findings were presented to the Compensation Committee for consideration. After consideration of the information presented, the Compensation Committee has concluded that our compensation programs, including our executive compensation program, do not encourage excessive risk taking by our executives or other employees. As a result, we believe that our employee compensation program does not create risk that is reasonably likely to have a material adverse effect on our Company.

Compensation Committee Interlocks and Insider Participation

None of our Compensation Committee members is or has been one of our officers or employees in 2019.

There were not any director interlocks among members of our Board of Directors in 2019.

Executive Compensation Tables

Summary Compensation Table

The following table provides information regarding the compensation of our named executive officers for the year ended December 31, 2019, 2018 and 2017, respectively:

Summary Compensation Table for Fiscal Years 2019, 2018 and 2017

<u>Name and principal position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)</u>	<u>Stock Awards (\$)</u> (1)	<u>Option Awards (\$)</u> (2)	<u>Non-equity Incentive Plan Compensation (\$)</u> (3)	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Michael Hunkapiller, Ph.D. (4)	2019	582,900	—	276,288	—	523,502	—	1,382,690
President and Chief Executive Officer	2018	1	—	427,375	153,490	1,030,000	—	1,610,866
	2017	1	—	—	1,343,160	—	—	1,343,161
Susan K. Barnes (5)	2019	401,500	—	151,513	—	234,382	—	787,395
Executive Vice President and Chief Financial Officer	2018	1	—	373,953	134,304	617,500	—	1,125,758
	2017	1	—	—	839,475	—	—	839,476
Michael Phillips (6)	2019	355,350	—	112,240	—	143,613	—	611,203
Former Senior Vice President of Research and Development	2018	345,000	—	132,826	103,768	35,397	—	616,991
	2017	336,800	—	—	335,790	24,515	—	697,105

- (1) Amounts shown represent the aggregate grant date fair value of the stock awards granted, determined in accordance with ASC 718, Compensation – Stock Compensation. Stock awards granted in 2018 included PSUs and the grant date fair value of the PSUs is based on the maximum value of the restricted stock units on the grant date, assuming all performance conditions will be achieved. For assumptions used in determining the fair value of stock awards, see the notes to our financial statements.
- (2) Amounts shown represent the aggregate grant date fair value of the option awards computed in accordance with FASB ASC Topic 718. These amounts do not correspond to the actual value that will be recognized by our named executive officers. The assumptions used in the valuation of these awards are consistent with the valuation methodologies specified in the notes to our financial statements.
- (3) Amounts shown represent all earnings on non-equity incentive plan compensation.
- (4) Dr. Hunkapiller will retire from his role as Chief Executive Officer and President by the end of fiscal year 2020.
- (5) Ms. Barnes will retire from her role as Executive Vice President and Chief Financial Officer in August 2020.
- (6) Effective April 1, 2020, Mr. Phillips retired from his role as Senior Vice President of Research and Development.

Grants of Plan-Based Awards

The following table presents information concerning grants of plan-based awards to each of the named executive officers that were so designated during the fiscal year ended December 31, 2019:

Grants of Plan-Based Awards for Fiscal Year 2019

Name	Grant Date	Approval Date	Estimated Future Payouts Under Non-equity Incentive Plan Awards (1)			All Other Stock Awards: Number of Shares of Stock or Units (#) (2)	Grant Date Fair Value of Stock and Option Awards (\$) (3)
			Threshold (\$)	Target (\$)	Maximum (\$)		
Michael Hunkapiller, Ph.D.	2/15/2019	1/22/2019				38,750	276,288
	Cash Incentive		—	582,900	728,625		
Susan K. Barnes	2/15/2019	1/22/2019				21,250	151,513
	Cash Incentive		—	260,975	326,219		
Michael Phillips (4)	2/15/2019	1/22/2019				8,000	57,040
	3/15/2019	3/14/2019				7,500	55,200
	Cash Incentive		—	159,908	199,885		

- (1) These non-equity incentive plan awards were granted under the Company's 2019 variable cash incentive plan. For 2019, Dr. Hunkapiller had a target bonus opportunity equal to 100% of base salary, Ms. Barnes had a target bonus opportunity equal to 65% of base salary, and Mr. Phillips had a target bonus opportunity equal to 45% of base salary. There was no threshold level of payment for these awards. Please refer to the "Compensation Discussion and Analysis" section above for detailed discussion.
- (2) These awards were granted in the form of RSUs under the Company's 2010 Equity Incentive Plan. The RSUs vested on the one-year anniversary of the date of grant of the RSU awards, subject to the recipient's continued service with us through the vesting date.
- (3) The amounts shown represent the aggregate grant date fair value of the stock awards computed in accordance with FASB ASC Topic 718.
- (4) Effective April 1, 2020, Mr. Phillips retired as Senior Vice President, Research and Development.

Outstanding Equity Awards at Fiscal Year-End

The following table presents certain information concerning equity awards held by the named executive officers that were so designated at the end of the fiscal year ended December 31, 2019:

Outstanding Equity Awards at Fiscal Year-End 2019

Name	Grant Date	Option Awards				Stock Awards			
		Number of Securities Underlying Unexercised options		Option Exercise Price (\$/sh)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#) (1)	Market Value of Shares or Units of Stock That have Not Vested (\$ (2)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#) (3)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$ (4)
Michael Hunkapiller, Ph.D.	10/26/2010	25,000	—	16	10/26/2020				
	6/23/2011	12,500	—	10.58	6/23/2021				
	1/9/2012	500,000	—	3.01	1/9/2022				
	3/15/2013	555,000	—	2.27	3/15/2023				
	3/17/2014	500,000	—	(5) 6.14	3/17/2024				
	3/16/2015	400,000	—	(6) 5.72	3/16/2025				
	3/15/2016	383,327	16,673	(6) 7.87	3/15/2026				
	2/15/2017	283,328	116,672	(6) 5.27	2/15/2027				
	3/15/2018	45,832	54,168	(6) 2.63	3/15/2028	37,500	(7) 192,750	50,000	257,000
	3/15/2019					38,750	(8) 199,175		
Susan K. Barnes	2/22/2010	327,942	—	8.5	2/22/2020				
	12/15/2010	125,000	—	13.72	12/15/2020				
	3/17/2014	300,000	—	(5) 6.14	3/17/2024				
	3/16/2015	250,000	—	(6) 5.72	3/16/2025				
	3/15/2016	239,579	10,421	(6) 7.87	3/15/2026				
	2/15/2017	177,080	72,920	(6) 5.27	2/15/2027				
	3/15/2018	21,875	47,397	(6) 2.63	3/15/2028	32,813	(7) 168,659	43,750	224,875
	3/15/2019					21,250	(8) 109,225		
Michael Phillips	2/17/2010	87,501	—	8.5	2/17/2020				
	7/29/2010	5,000	—	12.74	7/29/2020				
	6/15/2011	6,000	—	11.64	6/15/2021				
	2/15/2012	150,000	—	4.79	2/15/2022				
	2/15/2013	77,500	—	2.18	2/15/2023				
	2/18/2014	100,000	—	7.05	2/18/2024				
	2/17/2015	100,000	—	(6) 6.91	2/17/2025				
	2/16/2016	95,831	4,169	(6) 8.9	2/16/2026				
	2/15/2017	70,832	29,168	(6) 5.27	2/15/2027				
	2/15/2018	32,082	37,918	(6) 2.54	2/15/2028	11,250	(7) 57,825		
	2/15/2019					8,000	(8) 41,120		
	3/15/2019					7,500	(8) 38,550		

(1) Includes RSUs that are subject to continued service-based vesting.

- (2) The value of stock awards not vested was computed by multiplying (x) the closing price of \$5.14 for the Company's common stock on December 31, 2019, and (y) the number of shares of the Company's common stock subject to the award as of such date.
- (3) Includes PSUs that remain subject to performance-based vesting criteria. The performance goals for these PSUs relate to the Company's annual operating cash flow and quarterly operating cash flow measured over a three-year performance period from 2018 through 2020. To the extent performance is deemed achieved, these PSUs will be scheduled to vest on the later of December 31, 2020, or the date of certification of performance achievement under the award during the Company's first fiscal quarter of fiscal year 2021, subject to continued service through such date.
- (4) The value of the PSUs was computed by multiplying (x) the closing price of \$5.14 for the Company's common stock on December 31, 2019, and (y) the maximum number of shares of the Company's common stock subject to the award as of such date, assuming all performance conditions will be achieved.
- (5) Stock option vests at the rate of 1/60th of the total number of shares subject to the option each month following the grant date over the next five years, subject to continued service through the applicable vesting date.
- (6) Stock option vests at the rate of 1/48th of the total number of shares subject to the option each month following the grant date over the next four years, subject to continued service through the applicable vesting date.
- (7) The RSUs vest in equal annual installments over four years on each anniversary of the award's grant date, subject to continued service through the applicable vesting date.
- (8) The RSUs vest on the earlier of (i) the first anniversary of the grant date, or (ii) the completion of the proposed acquisition of the Company by Illumina, Inc. (which has since been terminated), subject to continued service through the applicable vesting date.

Option Exercises and Stock Vested During Fiscal Year 2019

The following table lists the number of shares acquired and the value realized as a result of vesting of RSUs and PSUs by the named executive officers that were so designated for the year ended December 31, 2019.

For RSUs and PSUs vested, the value realized on vesting is calculated by multiplying the number of shares acquired on vesting by the market price of common stock on the vesting date.

Option Exercises and Stock Vested During Fiscal Year 2019

Name	Option Awards		Stock Awards	
	Number of shares Acquired on Exercises (#)	Value Realized on Exercise (\$)	Number of shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
Michael Hunkapiller, Ph.D.	—	—	35,300	253,454
Susan K. Barnes	—	—	30,887	221,151
Michael Phillips	—	—	17,354	124,255

Employment Agreements and Change in Control Arrangements

We entered into change in control agreements with Dr. Hunkapiller, Ms. Barnes and Mr. Phillips.

Mr. Phillips's role as Senior Vice President, Research and Development terminated on April 1, 2020, in connection with his retirement. Accordingly, Mr. Phillips no longer is eligible to receive any severance benefits under his change in control agreement. He transitioned to a consultant role as of the same date. His consulting services are scheduled to end in March 2021.

The change in control agreements with Dr. Hunkapiller, Ms. Barnes and Mr. Phillips provide that if, on or within 12 months following a change in control (as defined in the change in control agreements), we terminate

his or her employment with us for a reason other than “cause,” his or her death or “disability,” or he or she resigns for “good reason,” in each case, as set forth in the applicable change in control agreement, he or she would be entitled to:

- continuing payments of base salary in effect immediately before the termination of his or her employment or, if greater, the base salary as in effect immediately before the merger, for a period of (1) in the case of Dr. Hunkapiller, 12 months; and (2) in the case of Ms. Barnes and Mr. Phillips, six months, in each case from the date of termination of employment;
- 100 percent of the unvested portion of his or her then-outstanding equity awards will vest immediately and, to the extent applicable, become exercisable; and
- company-paid or company-reimbursed premiums for continuation coverage as applicable, pursuant to COBRA for himself or herself and his or her eligible dependents (as applicable), subject to his or her timely election to continue such coverage, for up to 12 months (for Dr. Hunkapiller) or six months (for Ms. Barnes and Mr. Phillips) following termination of employment, except that, in the case of Dr. Hunkapiller, if we determine in our sole discretion that we cannot provide the COBRA benefits without potentially violating applicable law, then we will provide instead a taxable monthly payment in an amount equal to the monthly COBRA premium, regardless of whether he elects COBRA continuation coverage.

In order to receive the severance benefits under the change in control agreement, the executive officer must execute and not revoke a separation and release of claims agreement in our favor. The executive officer also is required to comply with the terms of his or her confidential information and invention assignment agreement previously entered into with us, including obligations relating to non-solicitation of our employees for a period of 12 months following the termination of his or her employment.

Each severance agreement provides that, if any payment or benefits to the applicable named executive officer (including the payments and benefits under his or her severance agreement) would constitute a “parachute payment” within the meaning of Section 280G of the Internal Revenue Code and therefore would be subject to an excise tax under Section 4999 of the Internal Revenue Code, then such payments and benefits will be either (1) reduced to the largest portion of the payments and benefits that would result in no portion of the payments and benefits being subject to the excise tax; or (2) not reduced, whichever, after taking into account all applicable federal, state, and local employment taxes, income taxes and the excise tax, results in his or her receipt, on an after-tax basis, of the greater payments and benefits.

Under the change in control agreements for each of Dr. Hunkapiller, Ms. Barnes and Mr. Phillips, the following definitions are used:

- “Cause” generally means (1) conviction of any felony; (2) conviction of any crime involving moral turpitude or dishonesty that causes, or is likely to cause, material harm to us; (3) participation in a fraud or willful act of dishonesty against us that causes, or is likely to cause, material harm to us; (4) intentional and material damage to our property; or (5) material breach of our proprietary information and inventions agreement;
- “Disability” means an executive is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than 12 months; and
- “Good reason” generally means an executive’s termination of employment within thirty days following the expiration of any cure period (discussed below) following the occurrence of one or more of the following, without his or her express written consent: (1) (i) for each of Ms. Barnes and Mr. Phillips, a material reduction of his or her duties, authority, or responsibilities, relative to the executive’s duties, authority, or responsibilities as in effect immediately prior to such reduction; provided, however, that a reduction in duties, authority, responsibilities solely by virtue of our being acquired and made part of a

larger entity (for example, where he or she retains essentially the same responsibility and duties of the subsidiary, business unit or division substantially containing our business following a change in control) shall not constitute good reason; (ii) for Dr. Hunkapiller, a material reduction of his duties, authority, or responsibilities, relative to his duties, authority, or responsibilities as in effect immediately prior to such reduction, or any change which results in his ceasing to serve as the Company's chief executive officer, except that ceasing to serve as president of the Company or executive chairman of the Company's Board will not constitute good reason; (2) for each of Dr. Hunkapiller, Ms. Barnes and Mr. Phillips, a material reduction by the Company in his or her annualized base pay as in effect immediately prior to such reduction (in other words, a reduction of more than 10 percent of his or her annualized base compensation in any one year, other than a reduction applicable to executives generally that does not adversely affect him or her to a greater extent than other similarly-situated executives); (3) for each of Dr. Hunkapiller, Ms. Barnes and Mr. Phillips, the relocation of his or her principal place of performing his or her duties as an employee of the Company by more than 50 miles; or (4) for each of Dr. Hunkapiller, Ms. Barnes and Mr. Phillips, the Company's failure to obtain the assumption of the change in control agreement by a successor; except that, in order for an event to qualify as good reason, he or she must not terminate employment without first providing Pacific Biosciences with written notice of the acts or omissions constituting the grounds for good reason within 90 days of the initial existence of the grounds for good reason and a reasonable cure period of not less than 30 days following the date of such notice.

PSU Agreements

As of the end of the Company's fiscal 2019, each of Dr. Hunkapiller, Ms. Barnes and Mr. Phillips held awards of company performance-based RSUs that provide that, if a "change in control" (as defined in the applicable company equity incentive plan under which the award was granted) occurs during the applicable performance period (or during the period after the end of the applicable performance period but before the applicable determination date), then effective as of immediately before the completion of the change in control, all of the applicable performance goals automatically will be deemed to have been achieved at the target level, such that 100 percent of the target number of shares subject to the award will be considered eligible to vest based on the individual's continued status as a service provider through the applicable vesting date, and the applicable performance goals no longer will apply to the award.

2010 Equity Incentive Plan

As of the end of the Company's fiscal 2019, each of Dr. Hunkapiller, Ms. Barnes, and Mr. Phillips held equity awards granted under the Company's 2010 Equity Incentive Plan. Such plan provides that, in the event of a merger or change in control (as defined in such plan) of the Company, if the successor corporation does not assume or substitute for outstanding awards under such plan, the awards will fully vest (and with respect to options and stock appreciation rights, become exercisable) and with respect to awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at 100 percent of the target levels and all other terms and conditions met. In addition, if options and stock appreciation rights are not assumed or substituted in the event of the Company's change in control, the administrator of the Company's 2010 Equity Incentive Plan will notify the award holders that such awards will be exercisable for a period of time determined by such plan's administrator and terminate upon expiration of such period.

The following table describes the potential payments and benefits to each of our named executive officers that were so designated as of December 31, 2019, in the event of a change in control, following a termination of employment without cause, and other than due to the executive officer's death or a disability or his or her resignation for good reason, based on the severance and change in control provisions described above and based on equity awards outstanding as of December 31, 2019. Salary amounts shown for Michael Hunkapiller, Ph.D., Susan K. Barnes reflect revisions to their respective severance agreements as of January 1, 2019. Actual amounts payable to each named executive officer listed below upon termination can only be determined definitively at the

time of each executive's actual departure. Due to Mr. Phillips's retirement in April 2020, Mr. Phillips no longer is eligible to receive the payments set forth in his severance agreement. In addition to the amounts shown in the table below, each executive officer would receive payments for amounts of base salary and vacation time accrued through the date of termination and payment for any reimbursable business expenses incurred.

Potential Payments upon Involuntary Termination or Change in Control

<u>Compensation and Benefits</u>	<u>Involuntary Termination on or Within 12 Months Following Change in Control (\$)</u>
Michael Hunkapiller, Ph.D.	
Salary	582,900
Performance-based cash bonus	582,900
Equity Acceleration (1)	784,887
Health care benefits	—
Total	<u>1,950,687</u>
Susan K. Barnes	
Salary	200,750
Performance-based cash bonus	260,975
Equity Acceleration (1)	621,725
Health care benefits	791
Total	<u>1,084,241</u>
Michael Phillips	
Salary	177,675
Equity Acceleration (1)	236,082
Health care benefits	2,465
Total	<u>416,222</u>

(1) Includes vesting acceleration of shares of the Company's common stock subject to options and stock awards. (i) Amounts for shares subject to options are calculated as the intrinsic value per option, meaning the product of (x) the number of shares subject to the options that become immediately vested upon involuntary termination on or within 12 months following a change in control, and (y) the excess, if any, of the closing price of a share of the Company's common stock on December 31, 2019, which was \$5.14 per share, over the per share exercise price of the option. (ii) Stock awards include RSUs and PSUs. The value of stock awards was calculated as the product of (x) the number of shares subject to the stock award (and for PSUs, the target number of shares subject to the award, assuming that performance conditions are achieved in full) that become immediately vested upon involuntary termination on or within 12 months following a change in control of the Company, and (y) the closing price of \$5.14 for a share the Company's common stock on December 31, 2019. Amounts shown also represent the intrinsic value of the options and value of stock awards that accelerate vesting upon a change in control of the Company in the event that a successor corporation refuses to assume or substitute for such awards in connection with such change in control.

CEO Pay Ratio

Pursuant to Item 402(u) of Regulation S-K and Section 953(b) of the Dodd-Frank Act, presented below is the ratio of annual total compensation of our CEO to the annual total compensation of our median employee (excluding our CEO). The ratio presented below is a reasonable estimate calculated in a manner consistent with Item 402(u).

The median employee used as the basis for comparison in 2019 is the same median employee selected in 2017. December 31, 2017 is the date as of which we identified our employee population for the purposes of identifying our median employee. We examined the 2017 total cash and equity compensation using payroll and equity plan records for January 1, 2017 through December 31, 2017 for all full-time, part-time, temporary and seasonal employees, excluding our CEO. Since December 31, 2017, there have been no changes in our employee population or employee compensation arrangements that we believe would significantly impact these pay ratio calculations. Wages were annualized for full-time employees that were not employed by us for the entire calendar year. Compensation for our hourly employees was not annualized. Other than the foregoing, we did not make any assumptions, adjustments or estimates with respect to our employees' total cash and equity compensation and used this consistently applied compensation measure to identify our median employee.

After identifying the median employee, we calculated his/her annual total compensation using the same SEC rules we use for calculating the annual total compensation of our named executive officers, as set forth in the Summary Compensation Table above. The median employee remained employed in the same job classification and received similar earnings in 2019 as in 2017.

In 2019, the annual total compensation of our median employee was approximately \$179,122, and our CEO's annual total compensation was \$1,382,690 using the amount reported in the "Total" column of our Summary Compensation Table for 2019. The resulting ratio of the total annual compensation of our CEO to our median employee was approximately 8:1.

The pay ratio was calculated in accordance with SEC rules based upon our reasonable judgment and assumptions. The SEC rules do not specify a single methodology for identification of the median employee or calculation of the pay ratio and other companies may use assumptions and methodologies that are different from those used by us in calculating their pay ratio. Accordingly, the pay ratio disclosed by other companies may not be comparable to the Company's pay ratio as disclosed above.

Equity Compensation Plan Information

The following table presents information about the Company's equity compensation plans as of December 31, 2019 (in thousands, except price data):

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)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (#)
Equity compensation plans approved by security holders (2)	23,920,364	5.57	24,125,037
Equity compensation plans not approved by security holders	—	—	—

(1) The weighted average exercise price is calculated based solely on outstanding stock options.

(2) Includes the following plans: the 2010 Equity Incentive Plan (the "2010 Plan"), the 2010 Director Plan, and the 2010 Employee Stock Purchase Plan ("ESPP"), which we adopted upon the effectiveness of our initial public offering in October 2010. Our 2010 Plan provides that the number of shares available for issuance thereunder will be increased on the first day of each fiscal year beginning with the 2012 fiscal year in an amount equal to the least of (i) 10,000,000 shares, (ii) 5% of the outstanding shares of our common stock as of the last day of our immediately preceding year, or (iii) such number of shares of common stock determined by our board of directors. On January 1, 2020, the number of shares available for issuance under our 2010 Plan increased by 7,655,953 shares. Our 2010 Director Plan provides that the number of shares available for issuance thereunder will be increased on the first day of each fiscal year beginning with the 2012 fiscal year in an amount equal to the lesser of (i) 1% of the outstanding shares of our common stock on

the last day of the immediately preceding fiscal year or (ii) such number of shares of common stock determined by our board of directors. On January 1, 2020, the number of shares available for issuance under our 2010 Director Plan increased by 1,531,190 shares pursuant to these provisions. Purchase periods under the ESPP were terminated after the completion of the purchase period ended March 1, 2019 in connection with our proposed merger. However, we began offerings under the ESPP again starting with the offering period on March 2, 2020. Our ESPP provides that the number of shares available for issuance thereunder will be increased in an amount equal to 2% of the outstanding shares of our common stock at the beginning of each calendar year. On January 1, 2020, the number of shares available for issuance under our ESPP increased by 3,062,381 shares pursuant to these provisions. These increases are not reflected in the table above.

AUDIT COMMITTEE REPORT

The following audit committee report shall not be deemed incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, and shall not otherwise be deemed filed under these acts, except to the extent we specifically incorporate by reference into such filings.

Our Audit Committee is composed of “independent” directors, as determined in accordance with Nasdaq Stock Market’s Rules and Rule 10A-3 of the Exchange Act. The Audit Committee has certain duties and powers as described in its charter adopted by the Board of Directors. A copy of the charter can be found on our website at www.pacb.com.

As described more fully in its charter, the purpose of the Audit Committee is to assist the Board of Directors with its oversight responsibilities regarding the integrity of our financial statements, our compliance with legal and regulatory requirements, assessing the independent auditor’s qualifications and independence, the performance and scope of independent audit procedures performed on our financial statements and internal control, and management’s process for assessing the adequacy of our system of internal control. Management is responsible for preparation, presentation, and integrity of our financial statements as well as our financial reporting process, accounting policies, internal control over financial reporting, and disclosure controls and procedures. The independent registered public accounting firm is responsible for performing an independent audit of our consolidated financial statements in accordance with generally accepted auditing standards and to issue a report thereon. The Audit Committee’s responsibility is to monitor and oversee these processes.

The Audit Committee has:

- reviewed and discussed our audited consolidated financial statements with management and Ernst & Young LLP, our independent auditors;
- discussed with Ernst & Young LLP the matters required to be discussed by Statement on Auditing Standards No. 114, as amended (AICPA, Professional Standards, Vol. 1. AU section 380) and adopted by the Public Company Accounting Oversight Board in Rule 3200T, and the Public Company Accounting Oversight Board Auditing Standard No. 1301 (Communications with Audit Committees) and the Securities and Exchange Commission; and
- received from Ernst & Young LLP the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent auditors’ communications with the Audit Committee concerning independence, and discussed with the auditors their independence.

In addition, the Audit Committee has regularly met separately with management and with Ernst & Young LLP. The audit committee also discussed with Ernst & Young LLP critical audit matters included in the firm’s audit opinion

Based on the review and discussions referred to above, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2019 for filing with the Securities and Exchange Commission.

Members of the Audit Committee

Randy Livingston (Chair)

Marshall Mohr

John F. Milligan, Ph.D.

OTHER INFORMATION

Stockholder Proposals

Stockholder Proposals for 2021 Annual Meeting

The Corporate Governance and Nominating Committee has a policy regarding the consideration of director candidates (the “Stockholder Nomination Policy”). Under the Stockholder Nomination Policy, the Corporate Governance and Nominating Committee will consider recommendations for candidates to the Board of Directors from stockholders holding at least five percent (5%) of the Company’s common stock continuously for at least twelve (12) months prior to the date of the submission of the recommendation.

The submission deadline for stockholder proposals to be included in our proxy materials for the 2021 annual meeting of stockholders pursuant to Rule 14a-8 of the Exchange Act is February 24, 2021 except as may otherwise be provided in Rule 14a-8. All such proposals must be in writing and received by our Corporate Secretary at Pacific Biosciences of California, Inc., 1305 O’Brien Drive, Menlo Park, CA 94025 by close of business on the required deadline in order to be considered for inclusion in our proxy materials for the 2020 annual meeting of stockholders. Submission of a proposal before the deadline does not guarantee its inclusion in our proxy materials.

Advance Notice Procedure for 2021 Annual Meeting

Under our Bylaws, director nominations and other business may be brought at an annual meeting of stockholders only by or at the direction of the Board of Directors or by a stockholder entitled to vote who has submitted a proposal in accordance with the requirements of our Bylaws as in effect from time to time. For the 2021 annual meeting of stockholders, a stockholder notice must be received by our Corporate Secretary at Pacific Biosciences of California, Inc., 1305 O’Brien Drive, Menlo Park, CA 94025, no earlier than April 6, 2021 and no later than May 6, 2021. However, if the 2021 annual meeting of stockholders is advanced by more than 25 days prior to or delayed by more than 25 days after the one-year anniversary of the 2020 Annual Meeting of Stockholders, then, for notice by the stockholder to be timely, it must be received by our Corporate Secretary not earlier than the close of business on the 120th day prior to the 2021 annual meeting of stockholders and not later than the close of business on the later of (i) the 90th day prior to the 2021 annual meeting of stockholders, or (ii) the tenth day following the day on which public announcement of the date of such annual meeting is first made. Please refer to the full text of our advance notice Bylaw provisions for additional information and requirements. A copy of our Bylaws has been filed with the Annual Report and may be obtained by writing to our Corporate Secretary at the address listed above.

Stockholders Sharing the Same Address

The SEC has adopted rules that allow a company to deliver a single proxy statement or annual report to an address shared by two or more of its stockholders. This method of delivery, known as “householding,” permits us to realize significant cost savings, reduces the amount of duplicate information stockholders receive, and reduces the environmental impact of printing and mailing documents to our stockholders. Under this process, certain stockholders will receive only one copy of our proxy materials and any additional proxy materials that are delivered until such time as one or more of these stockholders notifies us that they want to receive separate copies. Any stockholders who object to or wish to begin householding may notify our Investor Relations Department at ir@pacificsciences.com or (650) 521-8450 or Investor Relations, Pacific Biosciences of California, Inc., 1305 O’Brien Drive, Menlo Park, CA 94025.

Fiscal Year 2019 Annual Report and SEC Filings

Our financial statements for the fiscal year ended December 31, 2019 are included in the Annual Report, which we will make available to stockholders at the same time as this Proxy Statement. Our Annual Report and

this Proxy Statement are posted on our website at www.pacb.com and are available from the SEC at its website at www.sec.gov. You may also obtain a copy of our Annual Report without charge by sending a written request to Investor Relations, Pacific Biosciences of California, Inc., 1305 O'Brien Drive, Menlo Park, CA 94025.

By Order of the Board of Directors

Menlo Park, California
June 24, 2020

PACIFIC BIOSCIENCES OF CALIFORNIA, INC.

2020 EQUITY INCENTIVE PLAN

1. Purposes of the Plan. The purposes of this Plan are:

- to attract and retain the best available personnel for positions of substantial responsibility,
- to provide additional incentive to Employees, Directors and Consultants, and
- to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Restricted Stock, Restricted Stock Units, Stock Appreciation Rights, Performance Units and Performance Shares.

2. Definitions. As used herein, the following definitions will apply:

(a) "Administrator" means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 of the Plan.

(b) "Applicable Laws" means the legal and regulatory requirements relating to the administration of equity-based awards, including without limitation the related issuance of shares of Common Stock, including without limitation under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any non-U.S. country or jurisdiction where Awards are, or will be, granted under the Plan.

(c) "Award" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares.

(d) "Award Agreement" means the written or electronic agreement between the Company and Participant setting forth the terms and provisions applicable to an Award granted under the Plan. The Award Agreement is subject to the terms and conditions of the Plan.

(e) "Board" means the Board of Directors of the Company.

(f) "Change in Control" means the occurrence of any of the following events:

(i) Change in Ownership of the Company. A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than fifty percent (50%) of the total voting power of the stock of the Company; provided, however, that for purposes of this subsection, the acquisition of additional stock by any one Person, who is considered to own more than fifty percent (50%) of the total voting power of the stock of the Company will not be considered a Change in Control. Further, if the stockholders of the Company immediately before such change in ownership continue to retain immediately after the change in ownership, in substantially the same proportions as their ownership of shares of the Company's voting stock immediately prior to the change in ownership, direct or indirect beneficial ownership of fifty percent (50%) or more of the total voting power of the stock of the Company or of the ultimate parent entity of the Company, such event will not be considered a Change in Control under this subsection (i). For this purpose, indirect beneficial ownership will include, without limitation, an interest resulting from ownership of the voting securities of one or more corporations or other business entities which own the Company, as the case may be, either directly or through one or more subsidiary corporations or other business entities; or

(ii) Change in Effective Control of the Company. A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this subsection (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) Change in Ownership of a Substantial Portion of the Company's Assets. A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such Person) assets from the Company that have a total gross fair market value equal to or more than fifty percent (50%) of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, fifty percent (50%) or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, fifty percent (50%) or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least fifty percent (50%) of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this definition, persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing, a transaction will not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Section 409A.

Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (x) its sole purpose is to change the jurisdiction of the Company's incorporation, or (y) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(g) "Code" means the Internal Revenue Code of 1986, as amended. Any reference to a section of the Code or regulation thereunder will include such section or regulation, any valid regulation or other official guidance promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing, or superseding such section or regulation.

(h) "Committee" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board, or a duly authorized committee of the Board, in accordance with Section 4 hereof.

(i) "Common Stock" means the common stock of the Company.

(j) "Company" means Pacific Biosciences of California, Inc., a Delaware corporation, or any successor thereto.

(k) "Consultant" means any natural person, including an advisor, engaged by the Company or a Parent or Subsidiary of the Company to render bona fide services to such entity, provided the services (i) are not in connection with the offer or sale of securities in a capital-raising transaction, and (ii) do not directly promote or maintain a market for the Company's securities, in each case, within the meaning of Form S-8 promulgated under the Securities Act, and provided, further, that a Consultant will include only those persons to whom the issuance of Shares may be registered under Form S-8 promulgated under the Securities Act.

(l) "Director" means a member of the Board.

(m) “Disability” means total and permanent disability as defined in Section 22(e)(3) of the Code, provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

(n) “Employee” means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director’s fee by the Company will be sufficient to constitute “employment” by the Company.

(o) “Exchange Act” means the Securities Exchange Act of 1934, as amended.

(p) “Exchange Program” means a program under which (i) outstanding Awards are surrendered or cancelled in exchange for awards of the same type (which may have higher or lower exercise prices and different terms), awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding Award is reduced.

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

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the New York Stock Exchange, the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market, its Fair Market Value will be the closing sales price for such stock (or, if no closing sales price was reported on that date, as applicable, on the last Trading Day such closing sales price was reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or, if no bids and asks were reported on that date, as applicable, on the last Trading Day such bids and asks were reported), as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

(r) “Fiscal Year” means the fiscal year of the Company.

(s) “Incentive Stock Option” means an Option intended to qualify, and actually qualifies, as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(t) “Inside Director” means a Director who is an Employee.

(u) “Nonstatutory Stock Option” means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(v) “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 thereunder.

(w) “Option” means a stock option granted pursuant to the Plan.

(x) “Outside Director” means a Director who is not an Employee.

(y) “Parent” means a “parent corporation,” whether now or hereafter existing, as defined in Code Section 424(e).

(z) “Participant” means the holder of an outstanding Award.

(aa) “Performance Share” means an Award denominated in Shares which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine pursuant to Section 10.

(bb) “Performance Unit” means an Award which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine and which may be settled for cash, Shares or other securities or a combination of the foregoing pursuant to Section 10.

(cc) “Period of Restriction” means the period (if any) during which the transfer of Shares of Restricted Stock are subject to restrictions and therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.

(dd) “Plan” means this Pacific Biosciences of California, Inc. 2020 Equity Incentive Plan.

(ee) “Restricted Stock” means Shares issued pursuant to a Restricted Stock award under Section 7 of the Plan, or issued pursuant to the early exercise of an Option.

(ff) “Restricted Stock Unit” means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 8. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

(gg) “Rule 16b-3” means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

(hh) “Section 16(b)” means Section 16(b) of the Exchange Act.

(ii) “Section 409A” means Section 409A of the Code, as it has been and may be amended from time to time, and any proposed or final Treasury Regulations and Internal Revenue Service guidance that has been promulgated or may be promulgated thereunder from time to time, or any state law equivalent.

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

(kk) “Service Provider” means an Employee, Director or Consultant.

(ll) “Share” means a share of the Common Stock, as adjusted in accordance with Section 14 of the Plan.

(mm) “Stock Appreciation Right” means an Award, granted alone or in connection with an Option, that pursuant to Section 9 is designated as a Stock Appreciation Right.

(nn) “Subsidiary” means a “subsidiary corporation,” whether now or hereafter existing, as defined in Code Section 424(f).

(oo) “Trading Day” means a day that the primary stock exchange, national market system, or other trading platform, as applicable, upon which the Common Stock is listed, is open for trading.

3. Stock Subject to the Plan.

(a) Subject to the provisions of Section 14 of the Plan, the maximum aggregate number of Shares that may be issued under the Plan is (i) 11,000,000 Shares, plus (ii) any Shares subject to stock options or similar awards granted under any of the Company's 2010 Equity Incentive Plan, 2010 Outside Director Equity Incentive Plan, or 2005 Stock Plan (collectively, the "Prior Plans") that, on or after the effective date of the Plan as set forth in Section 18, expire or otherwise terminate without having been exercised or issued in full and any Shares subject to awards granted under the Prior Plans that, on or after the effective date of the Plan, are forfeited to or repurchased by the Company due to failure to vest, with the maximum number of Shares to be added to the Plan pursuant to the foregoing clause (ii) equal to 26,903,587 Shares. In addition, Shares may become available for issuance under the Plan pursuant to Sections 3(b) and 3(c). The Shares may be authorized, but unissued, or reacquired Common Stock.

(b) Lapsed Awards. If an Award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an Exchange Program, or, with respect to Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares, is forfeited to or repurchased by the Company due to failure to vest, then the unpurchased Shares (or for Awards other than Options or Stock Appreciation Rights, the forfeited or repurchased Shares), which were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). With respect to Stock Appreciation Rights that are settled in Shares, the gross number of Shares covered by the portion of the Award so exercised will cease to be available under the Plan. Shares that actually have been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan; provided, however, that if Shares issued pursuant to Awards of Restricted Stock, Restricted Stock Units, Performance Shares or Performance Units are repurchased by the Company or are forfeited to the Company due to failure to vest, such Shares will become available for future grant under the Plan. Shares used to pay the exercise price of an Award or to satisfy the tax withholding obligations related to an Award will not become available for future grant or sale under the Plan. To the extent an Award under the Plan is paid out in cash rather than Shares, the cash payment will not result in reducing the number of Shares available for issuance under the Plan. Notwithstanding the foregoing and, subject to adjustment as provided in Section 14, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a), plus, to the extent allowable under Section 422 of the Code and the Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan pursuant to Sections 3(b) and 3(c).

(c) Share Reserve. The Company, at all times during the term of this Plan, will reserve and keep available such number of Shares as will be sufficient to satisfy the requirements of the Plan.

4. Administration of the Plan.

(a) Procedure.

(i) Multiple Administrative Bodies. Different Committees with respect to different groups of Service Providers may administer the Plan.

(ii) Rule 16b-3. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder will be structured to satisfy the requirements for exemption under Rule 16b-3.

(iii) Other Administration. Other than as provided above, the Plan will be administered by (A) the Board or (B) a Committee, which committee will be constituted to satisfy Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, the specific duties delegated by the Board to such Committee, the Administrator will have the authority, in its discretion:

- (i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Awards may be granted hereunder;

(iii) to determine the number of Shares to be covered by each Award granted hereunder;

(iv) to approve forms of Award Agreement for use under the Plan;

(v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder. The terms and conditions include, but are not limited to, the exercise price, the time or times when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Award or the Shares relating thereto, based in each case on such factors as the Administrator will determine;

(vi) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable non-U.S. laws or for qualifying for favorable tax treatment under applicable non-U.S. laws;

(vii) to construe and interpret the terms of the Plan and Awards granted under the Plan;

(viii) to modify or amend each Award (subject to Section 19(c) of the Plan), including without limitation the discretionary authority to extend the post-termination exercisability period of Awards; provided, however, that in no event will the term of an Option or Stock Appreciation Right be extended beyond its original maximum term;

(ix) to allow Participants to satisfy tax withholding obligations in a manner prescribed in Section 15 of the Plan;

(x) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;

(xi) to temporarily suspend the exercisability of an Award if the Administrator deems such suspension to be necessary or appropriate for administrative purposes;

(xii) to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that otherwise would be due to the Participant under an Award; and

(xiii) to make all other determinations deemed necessary or advisable for administering the Plan.

(c) No Exchange Program or Repricing. Notwithstanding the powers of the Administrator set forth herein, the Administrator will not be permitted to implement an Exchange Program.

(d) Dividends. With respect to any Options and Stock Appreciation Rights, until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) thereunder, no right to receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to such Award, including without limitation notwithstanding any exercise of such Award. Further, no adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued under an Option or Stock Appreciation Right, except as provided in Section 14 of the Plan. During any applicable Period of Restriction, Service Providers holding Shares of Restricted Stock will be entitled to receive all dividends and other distributions paid with respect to such Shares, unless the Administrator provides otherwise; provided, however, that any such dividends or distributions payable with respect to such Shares will be subject to the same restrictions on transferability and/or forfeitability as the Shares of Restricted

Stock with respect to which they were paid. With respect to Awards of Restricted Stock Units, Performance Units and Performance Shares, until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or a duly authorized transfer agent of the Company), no right to receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to such Award, unless determined otherwise by the Administrator; provided, however, that any such dividends or distributions that the Administrator determines will be payable with respect to such Shares will be subject to the same vesting criteria and forfeitability provisions as the Shares subject to such Award with respect to which they were paid. For the avoidance of doubt, the number of Shares available for issuance under the Plan will not be reduced to reflect any dividends or other distributions that are reinvested into additional Shares or credited as additional Shares subject to or paid with respect to an Award.

(e) Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards and will be given the maximum deference permitted by Applicable Laws.

5. Eligibility. Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Stock Options.

(a) Grant of Options. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Options to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

(b) Stock Option Agreement. Each Award of an Option will be evidenced by an Award Agreement that will specify the exercise price, the number of Shares subject to the Option, the exercise restrictions, if any, applicable to the Option, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(c) Limitations. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds one hundred thousand dollars (\$100,000), such Options will be treated as Nonstatutory Stock Options. For purposes of this Section 6(c), Incentive Stock Options will be taken into account in the order in which they were granted. The Fair Market Value of the Shares will be determined as of the time the Option with respect to such Shares is granted.

(d) Term of Option. The term of each Option will be stated in the Award Agreement. In the case of an Incentive Stock Option, the term will be ten (10) years from the date of grant or such shorter term as may be provided in the Award Agreement. Moreover, in the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be five (5) years from the date of grant or such shorter term as may be provided in the Award Agreement.

(e) Option Exercise Price and Consideration.

(i) Exercise Price. The per share exercise price for the Shares to be issued pursuant to exercise of an Option will be determined by the Administrator, subject to the following:

- (1) In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant.

(B) granted to any Employee other than an Employee described in paragraph (A) immediately above, the per Share exercise price will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant.

(2) In the case of a Nonstatutory Stock Option, the per Share exercise price will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant.

(3) Notwithstanding the foregoing, Options may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code.

(ii) Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator will fix the period within which the Option may be exercised and will determine any conditions that must be satisfied before the Option may be exercised.

(iii) Form of Consideration. The Administrator will determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of: (1) cash; (2) check; (3) promissory note, to the extent permitted by Applicable Laws, (4) other Shares, provided that such Shares have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option will be exercised and provided that accepting such Shares will not result in any adverse accounting consequences to the Company, as the Administrator determines in its sole discretion; (5) consideration received by the Company under a broker-assisted (or other) cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan; (6) by net exercise; (7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws; or (8) any combination of the foregoing methods of payment.

(f) Exercise of Option.

(i) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (i) notice of exercise (in accordance with the procedures that the Administrator may specify from time to time) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised (together with any applicable tax withholdings). Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant, in the name of the Participant and his or her spouse. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised.

Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(ii) Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, other than upon the cessation of the Participant's Service Provider status as the result of the Participant's death or Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of cessation of the Participant's Service Provider status (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for three (3) months following cessation of the Participant's Service Provider status. Unless otherwise provided by the Administrator, if on the date of cessation of the Participant's Service Provider status the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If, after cessation of the Participant's Service Provider status, the Participant does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iii) Disability of Participant. If a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent the Option is vested on the date of cessation of the Participant's Service Provider status (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for twelve (12) months following cessation of the Participant's Service Provider status. Unless otherwise provided by the Administrator, if on the date of cessation of the Participant's Service Provider status the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If, after cessation of the Participant's Service Provider status, the Participant does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iv) Death of Participant. If a Participant dies while a Service Provider, the Option may be exercised following the Participant's death within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of death (but in no event may the Option be exercised later than the expiration of the term of such Option as set forth in the Award Agreement), by the Participant's designated beneficiary, provided such beneficiary has been designated prior to the Participant's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Participant, then such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution. In the absence of a specified time in the Award Agreement, the Option will remain exercisable for twelve (12) months following Participant's death. Unless otherwise provided by the Administrator, if at the time of death, the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(v) Tolling Expiration. A Participant's Award Agreement also may provide that:

(1) if the exercise of the Option following the cessation of Participant's status as a Service Provider (other than upon the Participant's death or Disability) would result in liability under Section 16(b), then the Option will terminate on the earlier of (A) the expiration of the term of the Option set forth in the Award Agreement, or (B) the tenth (10th) day after the last date on which such exercise would result in liability under Section 16(b); or

(2) if the exercise of the Option following the cessation of the Participant's status as a Service Provider (other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of Shares would violate the registration requirements under the Securities Act, then the Option will terminate on the earlier of (A) the expiration of the term of the Option or (B) the expiration of a period of thirty (30) days after the cessation of the Participant's status as a Service Provider during which the exercise of the Option would not be in violation of such registration requirements.

7. Restricted Stock.

(a) Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

(b) Restricted Stock Agreement. Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify any Period of Restriction, the number of Shares granted, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

(c) Transferability. Except as provided in this Section 7 or the Award Agreement, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of any applicable Period of Restriction.

(d) Other Restrictions. The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.

(e) Removal of Restrictions. Except as otherwise provided in this Section 7, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of any applicable Period of Restriction or at such other time as the Administrator may determine. The Administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed.

(f) Voting Rights. During any applicable Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

(g) Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

8. Restricted Stock Units.

(a) Grant. Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. After the Administrator determines that it will grant Restricted Stock Units under the Plan, it will advise the Participant in an Award Agreement of the terms, conditions, and restrictions related to the grant, including the number of Restricted Stock Units.

(b) Vesting Criteria and Other Terms. The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, divisional, business unit, or individual goals (including, but not limited to, continued employment or service), applicable federal or state securities laws or any other basis determined by the Administrator in its discretion.

(c) Earning Restricted Stock Units. Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as determined by the Administrator. Notwithstanding the foregoing, at any time after the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

(d) Form and Timing of Payment. Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) determined by the Administrator and set forth in the Award Agreement. The Administrator, in its sole discretion, may settle earned Restricted Stock Units only in cash, Shares, or a combination of both.

(e) Cancellation. On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

9. Stock Appreciation Rights.

(a) Grant of Stock Appreciation Rights. Subject to the terms and conditions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.

(b) Number of Shares. The Administrator will have complete discretion to determine the number of Stock Appreciation Rights granted to any Service Provider.

(c) Exercise Price and Other Terms. The per share exercise price for the Shares to be issued pursuant to exercise of a Stock Appreciation Right will be determined by the Administrator and will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant. Otherwise, the Administrator, subject to the provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan.

(d) Stock Appreciation Right Agreement. Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock Appreciation Right, the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(e) Expiration of Stock Appreciation Rights. A Stock Appreciation Right granted under the Plan will expire upon the date as determined by the Administrator, in its sole discretion, and set forth in the Award Agreement. Notwithstanding the foregoing, the rules of Section 6(d) relating to the maximum term and Section 6(f) relating to exercise also will apply to Stock Appreciation Rights.

(f) Payment of Stock Appreciation Right Amount. Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined as the product of:

(i) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; and

(ii) The number of Shares with respect to which the Stock Appreciation Right is exercised.

At the discretion of the Administrator, the payment upon exercise of a Stock Appreciation Right may be in cash, in Shares of equivalent value, or in some combination of both.

10. Performance Units and Performance Shares.

(a) Grant of Performance Units/Shares. Performance Units and Performance Shares may be granted to Service Providers at any time and from time to time, as will be determined by the Administrator, in its sole discretion. The Administrator will have complete discretion in determining the number of Performance Units and Performance Shares granted to each Participant.

(b) Value of Performance Units/Shares. Each Performance Unit will have an initial value that is established by the Administrator on or before the date of grant. Each Performance Share will have an initial value equal to the Fair Market Value of a Share on the date of grant.

(c) Performance Objectives and Other Terms. The Administrator will set performance objectives or other vesting provisions (including, without limitation, continued status as a Service Provider) in its discretion which, depending on the extent to which they are met, will determine the number or value of Performance Units/Shares that will be paid out to the Service Providers. The time period during which the performance objectives or other vesting provisions must be met will be called the “Performance Period.” Each Award of Performance Units/Shares will be evidenced by an Award Agreement that will specify the Performance Period, and such other terms and conditions as the Administrator, in its sole discretion, will determine. The Administrator may set performance objectives based upon the achievement of Company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service), applicable federal or state securities laws, or any other basis determined by the Administrator in its discretion.

(d) Earning of Performance Units/Shares. After the applicable Performance Period has ended, the holder of Performance Units/Shares will be entitled to receive a payout of the number of Performance Units/Shares earned by the Participant over the Performance Period, to be determined as a function of the extent to which the corresponding performance objectives or other vesting provisions have been achieved. After the grant of a Performance Unit/Share, the Administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such Performance Unit/Share.

(e) Form and Timing of Payment of Performance Units/Shares. Payment of earned Performance Units/Shares will be made as soon as practicable after the expiration of the applicable Performance Period. The Administrator, in its sole discretion, may pay earned Performance Units/Shares in the form of cash, in Shares (which have an aggregate Fair Market Value equal to the value of the earned Performance Units/Shares at the close of the applicable Performance Period) or in a combination thereof.

(f) Cancellation of Performance Units/Shares. On the date set forth in the Award Agreement, all unearned or unvested Performance Units/Shares will be forfeited to the Company, and again will be available for grant under the Plan.

11. Outside Director Award Limitations. No Outside Director may be granted, in any Fiscal Year, Awards (the value of which will be based on their grant date fair value determined in accordance with U.S. generally accepted accounting principles) and any other compensation (including without limitation any cash retainers or fees) that, in the aggregate, exceed \$500,000, provided that such amount is increased to \$1,000,000 in the Fiscal Year of his or her initial service as an Outside Director. Any Awards or other compensation provided to an individual for his or her services as an Employee, or for his or her services as a Consultant other than as an Outside Director, will be excluded for purposes of this Section 11.

12. Leaves of Absence/Transfer Between Locations. Unless the Administrator provides otherwise, vesting of Awards granted hereunder will be suspended during any unpaid leave of absence. A Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, or any of its Subsidiaries. For purposes of Incentive Stock Options, no such leave may exceed three (3) months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then six (6) months following the first (1st) day of such leave any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

13. Transferability of Awards. Unless determined otherwise by the Administrator, an Award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent and distribution, and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, such Award will contain such additional terms and conditions as the Administrator deems appropriate.

14. Adjustments; Dissolution or Liquidation; Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, reclassification, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs (other than any ordinary dividends or other ordinary distributions), the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of shares of stock that may be delivered under the Plan and/or the number, class, and price of shares of stock covered by each outstanding Award, and the numerical Share limits in Sections 3 and 11 of the Plan.

(b) Dissolution or Liquidation. In the event of a proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation or other entity or a Change in Control, each outstanding Award will be treated as the Administrator determines (subject to the provisions of the following paragraph) without a Participant's consent, including, without limitation, that (i) Awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof) with appropriate adjustments as to the number and kind of shares and prices; (ii) upon written notice to a Participant, that the Participant's Awards will terminate upon or immediately prior to the consummation of such merger or Change in Control; (iii) outstanding Awards will vest and become exercisable, realizable, or payable, or restrictions applicable to an Award will lapse, in whole or in part prior to or upon consummation of such merger or Change in Control, and, to the extent the Administrator determines, terminate upon or immediately prior to the effectiveness of such merger or Change in Control; (iv) (A) the termination of an Award in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Participant's rights as of the date of the occurrence of the transaction (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment), or (B) the replacement of such Award with other rights or property selected by the Administrator in its sole discretion; or (v) any combination of the foregoing. In taking any of the actions permitted under this Section 14(c), the Administrator will not be obligated to treat all Awards, all Awards held by a Participant, all Awards of the same type, or all portions of Awards, similarly.

In the event that the successor corporation does not assume or substitute for the Award (or portion thereof), the Participant will fully vest in and have the right to exercise the Participant's outstanding Option and Stock Appreciation Right (or portion thereof) that is not assumed or substituted for, including Shares as to which such Award would not otherwise be vested or exercisable, all restrictions on Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units (or portions thereof) not assumed or substituted for will lapse, and, with respect to such Awards with performance-based vesting (or portions thereof) not assumed or substituted for, all performance goals or other vesting criteria will be deemed achieved at one hundred percent (100%) of target levels and all other terms and conditions met, in each case, unless specifically provided otherwise under the applicable Award Agreement or other written agreement between the Participant and the Company or any of its Subsidiaries or Parents, as applicable. In addition, if an Option or Stock Appreciation Right (or portion thereof) is not assumed or substituted for in the event of a merger or Change in Control, the Administrator will notify the Participant in writing or electronically that such Option or Stock Appreciation Right (or its applicable portion) will be exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right (or its applicable portion) will terminate upon the expiration of such period.

For the purposes of this subsection (c) (and subsection (d) below), an Award will be considered assumed if, following the merger or Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of an Option or Stock Appreciation Right or upon the payout of a Restricted Stock Unit, Performance Unit or Performance Share, for each Share subject to such Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or Change in Control.

Notwithstanding anything in this subsection (c) to the contrary, and unless otherwise provided in an Award Agreement or other written agreement between the Participant and the Company or any of its Subsidiaries or Parents, as applicable, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance goals will not be considered assumed if the Company or its successor modifies any of such performance goals without the Participant's consent; provided, however, a modification to such performance goals only to reflect the successor corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption.

Notwithstanding anything in this subsection (c) to the contrary, if a payment under an Award Agreement is subject to Section 409A and if the change in control definition contained in the Award Agreement or other agreement related to the Award does not comply with the definition of "change in control" for purposes of a distribution under Section 409A, then any payment of an amount that otherwise is accelerated under this Section will be delayed until the earliest time that such payment would be permissible under Section 409A without triggering any penalties applicable under Section 409A.

(d) Outside Director Awards. With respect to Awards granted to an Outside Director that are assumed or substituted for, if on the date of or following such assumption or substitution the Participant's status as a Director or a director of the successor corporation, as applicable, is terminated other than upon a voluntary resignation by the Participant (unless such resignation is at the request of the acquirer), then as of such date of termination, the Participant's Awards will be treated as described in the second paragraph of Section 14(c) above with respect to vesting acceleration (for clarity, as though the Awards were not assumed or substituted).

15. Tax.

(a) Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof) or such earlier time as any tax withholding obligations are due, the Company (or any of its Subsidiaries, Parents or affiliates employing or retaining the services of a Participant, as applicable) will have the power and the right to deduct or withhold, or require a Participant to remit to the Company (or any of its Subsidiaries, Parents or affiliates, as applicable), an amount sufficient to satisfy U.S. federal, state, and local, non-U.S., and other taxes (including the Participant's FICA obligation) required to be withheld with respect to such Award (or exercise thereof).

(b) Withholding Arrangements. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such tax withholding obligation, in whole or in part by (without limitation) (i) paying cash, check or other cash equivalents, (ii) electing to have the Company withhold otherwise deliverable cash or Shares having a fair market value equal to the minimum statutory amount required to be withheld or such greater amount as the Administrator may determine if such amount would not have adverse accounting consequences, as the Administrator determines in its sole discretion, (iii) delivering to the Company already-owned Shares having a fair market value equal to the

minimum statutory amount required to be withheld or such greater amount as the Administrator may determine, in each case, provided the delivery of such Shares will not result in any adverse accounting consequences, as the Administrator determines in its sole discretion, (iv) selling a sufficient number of Shares otherwise deliverable to the Participant through such means as the Administrator may determine in its sole discretion (whether through a broker or otherwise) equal to the amount required to be withheld, or (v) any combination of the foregoing methods of payment. The amount of the withholding requirement will be deemed to include any amount which the Administrator agrees may be withheld at the time the election is made, not to exceed the amount determined by using the maximum federal, state or local marginal income tax rates applicable to the Participant with respect to the Award on the date that the amount of tax to be withheld is to be determined or such greater amount as the Administrator may determine if such amount would not have adverse accounting consequences, as the Administrator determines in its sole discretion. The fair market value of the Shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

(c) Compliance With Section 409A. Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Section 409A such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Section 409A and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Section 409A. In no event will the Company or any of its Subsidiaries or Parents have any obligation or liability under the terms of this Plan to reimburse, indemnify, or hold harmless any Participant or any other person in respect of Awards, for any taxes, interest or penalties imposed, or other costs incurred, as a result of Section 409A.

16. No Effect on Employment or Service. Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider, nor interfere in any way with the Participant's right or the right of the Company and its Subsidiaries or Parents, as applicable, to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.

17. Date of Grant. The date of grant of an Award will be, for all purposes, the date on which the Administrator makes the determination granting such Award, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

18. Term of Plan. Subject to Section 22 of the Plan, the Plan will become effective upon the date on which the Company's stockholders approve the Plan. It will continue in effect for a term of ten (10) years from the effective date of the Plan, unless terminated earlier under Section 19 of the Plan.

19. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Administrator, at any time, may amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan will materially impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Awards granted under the Plan prior to the date of such termination.

20. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares will not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Award, the Company may require the person exercising such Award 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.

21. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction or to complete or comply with the requirements of any registration or other qualification of the Shares under any U.S. state or federal law or non-U.S. law or under the rules and regulations of the Securities and Exchange Commission, the stock exchange on which Shares of the same class are then listed, or any other governmental or regulatory body, which authority, registration, qualification or rule compliance is deemed by the Company's counsel to be necessary or advisable for the issuance and sale of any Shares hereunder, will relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority, registration, qualification or rule compliance will not have been obtained.

22. Stockholder Approval. The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

23. Forfeiture Events. The Administrator may specify in an Award Agreement that the Participant's rights, payments, and benefits with respect to an Award will be subject to reduction, cancellation, forfeiture, recoupment, reimbursement, or reacquisition upon the occurrence of certain specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. Notwithstanding any provisions to the contrary under this Plan, an Award will be subject to the Company's clawback policy as may be established and/or amended from time to time to comply with Applicable Laws (including without limitation pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as may be required by the Dodd-Frank wall Street Reform and Consumer Protection Act) (the "Clawback Policy"). The Administrator may require a Participant to forfeit, return or reimburse the Company all or a portion of the Award and any amounts paid thereunder pursuant to the terms of the Clawback Policy or as necessary or appropriate to comply with Applicable Laws. Unless this Section 23 specifically is mentioned and waived in an Award Agreement or other document, no recovery of compensation under a Clawback Policy or otherwise will constitute an event that triggers or contributes to any right of a Participant to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company or any Parent or Subsidiary of the Company.

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