



April 14, 2022

Dear Pacific Biosciences of California, Inc. Stockholder:

You are cordially invited to attend our 2022 Annual Meeting of Stockholders including any adjournments and postponements thereof (the "Annual Meeting"), which will be held virtually on Wednesday, May 25, 2022 at 9:00 a.m. Pacific Time on the internet at meetnow.global/MNPUZ57. To access the virtual meeting, please have your notice or proxy card in hand when you visit the website. If you have difficulty accessing the virtual Annual Meeting, please call (888) 724-2416 or (781) 575-2748 for assistance.

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 III 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, 2022; and
- "FOR" the amendment of our 2020 Equity Incentive Plan to increase the number of shares reserved thereunder.

Thank you for your continued support of PacBio.

Sincerely,

A handwritten signature in black ink, appearing to read "Ch O Henry", with a stylized flourish at the end.

Christian O. Henry
Chief Executive Officer and President

PACIFIC BIOSCIENCES OF CALIFORNIA, INC.
NOTICE OF 2022 ANNUAL MEETING OF STOCKHOLDERS

To Be Held on May 25, 2022

9:00 a.m. Pacific Time

Pacific Biosciences of California, Inc.'s 2022 Annual Meeting of Stockholders will be held virtually on Wednesday, May 25, 2022 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: meetnow.global/MNPUZ57. To access the virtual meeting, please have your notice or proxy card in hand when you visit the website. If you have difficulty accessing the virtual Annual Meeting, please call (888) 724-2416 or (781) 575-2748 for assistance.

During the Annual Meeting, our stockholders will be asked:

- To elect each of the three Class III 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, 2022;
- To vote on an amendment of our 2020 Equity Incentive Plan to increase the number of shares reserved thereunder; 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 March 31, 2022 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 April 14, 2022, 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, 2021 ("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.

By Order of the Board of Directors,



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

Menlo Park, California
April 14, 2022

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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 May 25, 2022

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 2022 Annual Meeting of Stockholders (the "Annual Meeting"). The Annual Meeting will be held virtually on May 25, 2022 at 9:00 a.m. Pacific Time on the internet at meetnow.global/MNPUZ57. 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.

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," "PacBio" 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 each of the three Class III 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, 2022;
- Proposal 3: The amendment of our 2020 Equity Incentive Plan to increase the number of shares reserved thereunder; 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 III 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, 2022; and

- “FOR” approval of the amendment of our 2020 Equity Incentive Plan to increase the number of shares reserved thereunder.

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 March 31, 2022, 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. As the stockholder of record, you have the right to grant your voting proxy directly to the individuals listed on the proxy card or to vote on your own behalf at the Annual Meeting.

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. Beneficial owners are also invited to attend the Annual Meeting. However, since a beneficial owner is not the stockholder of record, you may not vote your shares of our common stock at the Annual Meeting unless you follow your broker’s procedures for obtaining a legal proxy.

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 April 14, 2022 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 5:00 p.m. Pacific Time on the record date, March 31, 2022, 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 meetnow.global/MNPUZ57. 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.

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 May 25, 2022. We encourage you to access the meeting prior to the start time to leave ample time for check-in. Please follow the registration instructions as outlined in this proxy statement. If you have difficulty accessing the virtual Annual Meeting, please call (888) 724-2416 or (781) 575-2748 for assistance.

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 May 19, 2022.

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 ongoing 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 the pandemic. 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 by 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 May 24, 2022 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 May 24, 2022.
- **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.

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 May 24, 2022;
- 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 May 24, 2022; 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. Christian O. Henry, Susan G. Kim, Brett Atkins and Michele Farmer 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.

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 III 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, 2022 (Proposal 2);
- “FOR” approval of the amendment of our 2020 Equity Incentive Plan to increase the shares reserved thereunder (Proposal 3); and
- 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. In the absence of timely directions, your broker will have discretion to vote your shares on our sole “routine” matter: Proposal 2 to ratify the appointment of Ernst & Young LLP. Brokers, banks and other nominees do not have discretion to vote on non-routine matters such as Proposal 1 and Proposal 3. 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 and Proposal 3.

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 as of 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 March 31, 2022, we had 224,329,439 shares of common stock outstanding and entitled to vote at the virtual Annual Meeting, meaning that 112,164,720 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 the majority of votes cast or the approval of a majority of the votes present remotely or represented by proxy and entitled to vote (Proposal 1, Proposal 2 and Proposal 3).

What is the vote required for each proposal?

Proposal	Vote Required	Broker Discretionary Voting Allowed
Proposal 1 – Election of three Class III directors	Majority of the votes cast	No
Proposal 2 – Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm	Majority of the voting power of the shares present virtually or represented by proxy and entitled to vote on the subject matter	Yes
Proposal 3 – Increase in the number of shares of common stock authorized for issuance under the 2020 Equity Incentive Plan	Majority of the voting power of the shares present virtually or represented by proxy and entitled to vote on the subject matter	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 Proposal 2, you may vote FOR, AGAINST or ABSTAIN. If you ABSTAIN from voting on this proposal, the abstention will have the same effect as a vote AGAINST Proposal 2.

With respect to Proposal 3, you may vote FOR, AGAINST, or ABSTAIN. If you ABSTAIN from voting on this proposal, the abstention will have the same effect as a vote AGAINST Proposal 3.

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 pay the entire cost of preparing, assembling, printing, mailing, and distributing these proxy materials and soliciting votes. In addition to the mailing of these proxy materials, the solicitation of proxies or votes may be made in person, by telephone, or by electronic communication by our directors, officers, and employees, who will not receive any additional compensation for such solicitation activities. We may also reimburse brokerage firms, banks, trustees, and other nominees for the cost of forwarding proxy materials to beneficial owners. We have hired Alliance Advisors, LLC (“Alliance”) to help us solicit proxies. We expect to pay Alliance a base fee of \$14,999 plus reimbursement of reasonable out-of-pocket expenses. Proxy solicitations will be made primarily through the mail, but may be supplemented by telephone, facsimile, Internet, or personal solicitation by Alliance.

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 2023 Annual Meeting

The submission deadline for stockholder proposals to be included in our proxy materials for the 2023 annual meeting of stockholders pursuant to Rule 14a-8 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) is December 15, 2022 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 2023 annual meeting of stockholders. Submission of a proposal before the deadline does not guarantee its inclusion in our proxy materials.

Advance Notice Procedure for 2023 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 2023 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 January 25, 2023 and no later than February 24, 2023. However, if the 2023 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 2022 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 such annual meeting of stockholders and not later than the close of business on the later of (i) the 90th day prior to such 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 Chair of the Board of Directors 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, and appointed Christian O. Henry as Chair of the Board of Directors. In September 2020, the Board of Directors appointed Mr. Henry as Chief Executive Officer and President of the Company, and John F. Milligan as Chair of the Board of Directors. Mr. Henry continues to serve as a member of the Board of Directors. The Board of Directors determined that the separation of the roles of Chair of the Board of Directors and Chief Executive Officer and President was appropriate as it allows our Chief Executive Officer and President to focus primarily on management responsibilities and corporate strategy, while allowing the Chair to focus on leadership of the Board of Directors, providing feedback and advice to the Chief Executive Officer and President and providing a channel of communication between the members of the Board of Directors and the Chief Executive Officer and President. The Chair of the Board of Directors presides over all meetings of our Board of Directors and works with the Chief Executive Officer and President to develop agendas for meetings of our Board of Directors. The Chair 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 Chair, the Board of Directors eliminated the position of Lead Independent Director.

In the absence of the Chair at a meeting of the Board of Directors, Mr. Henry 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 Chair, Chief Executive Officer and President, and other senior management.

Board Diversity Matrix

The following matrix summarizes voluntary disclosure of diversity characteristics of our Board of Directors:

Board Diversity Matrix (As of April 14, 2022)

Total Number of Directors	9			
	Female	Male	Non-Binary	Did Not Disclose Gender
Part I: Gender Identity				
Directors	3	6	0	0
Part II: Demographic Background				
African American or Black	1	0	0	0
Alaskan Native or Native American	0	0	0	0
Asian	0	0	0	0
Hispanic or Latinx	0	0	0	0
Native Hawaiian or Pacific Islander	0	0	0	0
White	2	6	0	0
Two or More Races or Ethnicities	0	0	0	0
LGBTQ+			0	
Did Not Disclose Demographic Background			0	

ESG Board Oversight Framework

We view Environmental, Social, and Governance (“ESG”) factors as long-term value drivers for the Company. ESG oversight is exercised by both our Board of Directors and our executive leadership. Our Board of Directors assesses and evaluates our overall ESG strategy and how ESG integrates into our long-term strategy. At the committee level, our nominating and corporate governance committee has oversight responsibility for our ESG strategy and policies, including with respect to board diversity.

We have established a cross-functional ESG working group made up of leaders in the organization to guide the development of our ESG strategy and social impact initiatives. Numerous departments are involved in our ESG strategy and work, including government affairs, finance, human resources and legal, among others.

As part of our ongoing identification and assessment of ESG risks and opportunities, PacBio, in conjunction with outside experts, is conducting stakeholder interviews and evaluating the available options for non-financial reporting, including existing frameworks such as Sustainability Accounting Standards Board (SASB), Global Reporting Initiative and the Task Force on Climate-related Financial Disclosures. We plan to use this feedback in continuing to refine our ESG priorities.

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, Livingston and Mohr, Ms. Ordoñez, and Drs. Botstein, Milligan, Shapiro and Valentine, representing eight 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 and Mohr, Dr. Milligan, and Ms. Ordoñez, who comprise our Compensation Committee, and Messrs. Ericson and Livingston, and Drs. Shapiro and Valentine, 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.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act, requires the Company's directors and executive officers, and persons who own beneficially more than ten percent of its common stock, to file reports of ownership and changes of ownership with the SEC. Based on our review of copies of reports filed under Section 16(a) of the Exchange Act, and written representations furnished to us, we believe that our directors, executive officers, and greater than ten percent beneficial owners have complied with all applicable filing requirements during the fiscal year ended December 31, 2021, except for one untimely Form 4 filed on April 13, 2022 by our

director William Ericson with respect to one transaction occurring on February 12, 2021 with respect to a distribution in kind from MDV VII Leaders' Fund, L.P. and MDV VII, L.P. without consideration to its partners.

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 2021, our Board of Directors held 11 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. Eight of the nine members of our Board of Directors attended our June 16, 2021 Annual Meeting of Stockholders.

The names of the nominees and directors, their ages as of March 31, 2022 and certain other information about them are set forth below:

Name of Director	Age	Position	Class and Current Term
David Botstein, Ph.D.	79	Director	Class III, term expires 2022
William Ericson	63	Director	Class III, term expires 2022
Christian O. Henry	54	Chief Executive Officer and President	Class I, term expires 2023
Randy Livingston	68	Director	Class II, term expires 2024
John F. Milligan, Ph.D.	61	Chair of the Board of Directors	Class I, term expires 2023
Marshall Mohr	66	Director	Class II, term expires 2024
Kathy Ordoñez	71	Director	Class III, term expires 2022
Lucy Shapiro, Ph.D.	81	Director	Class I, term expires 2023
Hannah A. Valantine, M.D.	70	Director	Class II, term expires 2024

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.

Nominees for Class III Directors (Term For Which Nominated Expires in 2025)

David Botstein, Ph.D. has been a member of our Board of Directors since 2012. From January 2014 through December 2021, Dr. Botstein served as 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 has also been a Managing Partner at Mohr Davidow Ventures (MDV) since 2000. 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.

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 has been a member of the board of directors of Quidel Corporation since July 2019 and serves on its compensation committee. Ms. Ordoñez also served as a Director, non-executive Chairman, and Chief Executive Officer of RainDance Technologies, Inc., which was sold to Bio-Rad Laboratories, Inc. in February 2017. 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. Ms. Ordoñez holds a B.A. in Chemistry and honorary Doctorate of Science from Hartwick College.

Continuing Class I Directors (Term Expires in 2023)

Christian O. Henry became our Chief Executive Officer and President in September 2020. He has served as a member of our Board of Directors since 2018 and was appointed as Chair 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. and serves as chairman of its audit committee and compensation committee, as a director of Ginkgo Bioworks, Inc and serves on its audit committee and compensation committee, and was also a director of CM Life Sciences III LLC from April 2021 to December 2021. 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.

John F. Milligan, Ph.D. has been a member of our Board of Directors since 2013 and became Chair in September 2020. 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 currently the Executive Chair of 4D Molecular Therapeutics (NASDAQ: FDMT). Dr. Milligan is also 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.

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 is currently a director of 5Metis, Inc., and 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.

Continuing Class II Directors (Term Expires in 2024)

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.

Marshall Mohr has been a member of our Board of Directors since 2012. Mr. Mohr joined Intuitive Surgical, Inc., a provider of surgical robotics, in March 2006 as Senior Vice President and Chief Financial Officer and was promoted to Executive Vice President and Chief Financial Officer in July 2018. Beginning January 1, 2022, Mr. Mohr assumed the role of Executive Vice President, Global Business Services. 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 global outfitter of professional-grade audio and video technology, and in January of 2022 was appointed to the board of directors of Veeva Systems Inc. and serves on its audit committee. Mr. Mohr 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.

Hannah A. Valantine, M.D. currently serves as Professor of Medicine at Stanford University School of Medicine, where she has been a faculty member since 1987. From April 2014 to September 2020, Dr. Valantine

served as Chief Officer for Scientific Workforce Diversity at the National Institutes of Health, and as a Senior Investigator in the Intramural Research Program at the National Heart, Lung, and Blood Institute. From November 2004 to April 2014, Dr. Valentine was Professor of Cardiovascular Medicine and the Senior Associate Dean for Diversity and Leadership at Stanford. In collaboration with her colleagues at Stanford, Dr. Valentine co-invented the technology for donor derived cell-free DNA for diagnosis of transplant rejection, which is currently licensed and used to monitor patients for early detection of acute rejection. Dr. Valentine also serves as Principal and Founder of HAV LLC, a consulting company for diversity, equity and inclusion that she founded in January 2021, and as a director on the boards of BridgeBio Pharma, Inc., a company that finds, develops, and delivers breakthrough medicines for genetic diseases, and CareDX, a leading precision medicine company focused on the discovery, development and commercialization of clinically differentiated, high-value healthcare solutions for transplant patients and caregivers. We believe that Dr. Valentine 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 2021:

Name of Director	Audit	Compensation	Corporate Governance and Nominating	Science and Technology
David Botstein, Ph.D.				X
William Ericson		X (chair)	X	
Michael Hunkapiller, Ph.D.				X ⁽¹⁾
Randy Livingston	X (chair)		X	
John F. Milligan, Ph.D.	X	X		
Marshall Mohr	X	X		
Kathy Ordoñez		X ⁽²⁾		X (chair)
Lucy Shapiro, Ph.D.			X (chair)	X
Hannah A. Valentine, M.D.			X ⁽³⁾	X ⁽³⁾
Number of meetings held during 2021	6	6	4	4

- (1) Dr. Hunkapiller did not stand for re-election as a director nominee in 2021 but continued to serve as a member of our Board of Directors until the expiration of his term as a director at the Company’s 2021 annual meeting of stockholders, which was held on June 16, 2021.
- (2) Ms. Ordoñez was appointed to our Compensation Committee in November 2021.
- (3) Dr. Valentine was appointed to our Corporate Governance and Nominating Committee and Science and Technology Committee in July 2021.

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 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 and Mohr, Dr. Milligan and Ms. Ordoñez (from November 2021). 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, Dr. Shapiro and Dr. Valentine (from July 2021). 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, Hunkapiller (until June 2021), Shapiro and Valantine (from July 2021) 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.

Through April 20, 2021, 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) 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 the 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.

In 2021, our Compensation Committee consulted with Aon to perform an analysis of our non-employee director compensation policy relative to prevailing market data. Based on its review, the Board of Directors decided to approve the following adjustments in compensation to each non-employee member of the Board as follows, effective April 21, 2021:

- The annual cash retainer paid to each non-employee director was increased to \$40,000;
- The annual retainer for the Chair of the Board was increased to \$40,000;
- Each new non-employee director receives an initial stock option grant, under the terms of the Company's 2020 Equity Incentive Plan, with a fair value of \$450,000, one-third of which vests on the one-year anniversary of the non-employee director's initial start date on the Board of Directors, and the remainder of which vests in equal monthly installments thereafter for 24 months on the same date of the month as such director's initial start date, provided such non-employee director continues to serve as a director through each vesting date;
- Each non-employee director automatically receives an annual stock option grant with a grant date fair value of \$200,000, beginning on the date of the first annual meeting of our stockholders that is held after such non-employee director initially began to provide continuous service as a non-employee director, provided that the grant date fair value of such first annual stock option grant shall be pro-rated based on the number of months of continuous service prior to such first annual meeting as a non-employee director where service in any month counts as a full month of service, and provided further that such non-employee director continues to serve as a director through such date. 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. For the avoidance of doubt, all new awards will be granted under the 2020 Equity Incentive Plan.

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.

The 2020 Equity Incentive 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;
- awards will vest, in whole or in part 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 in the transaction does not assume or substitute for the award (or portion of the award), the award (or applicable portion) will vest in full (and become exercisable with respect to options and similar awards), with any performance-based criteria deemed achieved at 100% of target levels. With respect to awards granted to a non-employee director that are assumed or substituted for in the transaction, if on the date of or after such assumption or substitution, the individual’s status as a director of the Company or of the successor corporation, as applicable, is terminated other than upon voluntary resignation (except if such resignation is at the request of the acquirer), then such director’s awards will accelerate vesting as described in the immediately preceding sentence as though such awards had not been assumed or substituted for.

Director Compensation for Fiscal Year 2021

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, 2021. The table excludes Mr. Henry, who was a named executive officer and did not receive any compensation from us for his role as a director in 2021.

Name	Fees earned or paid in cash (\$)	Option Awards (\$)	All Other Compensation Reimbursement for Income Taxes (\$)	Total (\$)
David Botstein, Ph.D.	42,917	199,993	—	242,910
William Ericson	56,917	199,993	—	256,910
Michael Hunkapiller, Ph.D. ⁽¹⁾	14,583	199,993	21,838 ⁽²⁾	236,414
Randy Livingston	62,917	199,993	—	262,910
John F. Milligan, Ph.D.	92,834	199,993	—	292,827
Marshall Mohr	54,917	199,993	—	254,910
Kathy Ordoñez	49,083	199,993	—	249,076
Lucy Shapiro, Ph.D.	52,917	199,993	—	252,910
Hannah A. Valantine, M.D. ⁽³⁾	29,167	449,996	—	479,163

(1) Dr. Hunkapiller did not stand for re-election as a director nominee in 2021 but continued to serve as a member of our Board of Directors until the expiration of his term as a director at the Company’s 2021 annual meeting of stockholders, which was held on June 16, 2021.

- (2) Represents fees paid to Dr. Hunkapiller pursuant to an advisory agreement entered into after expiration of his term as a member of the Board of Directors in 2021.
- (3) Dr. Valentine was elected to our Board of Directors at the annual meeting of stockholders on June 16, 2021.

The aggregate number of shares subject to stock options outstanding and exercisable and restricted stock units with time-based vesting (“RSUs”) outstanding at December 31, 2021 for each non-employee director is as follows:

Name	Aggregate Number of Stock Options Outstanding	Aggregate Number of Stock Options Exercisable	Aggregate Number of RSUs Outstanding
David Botstein, Ph.D.	84,384	77,941	—
William Ericson	209,384	202,941	—
Michael Hunkapiller, Ph.D. ⁽¹⁾	37,887	27,275	162,500
Randy Livingston	184,384	177,941	—
John F. Milligan, Ph.D.	144,384	116,552	—
Marshall Mohr	269,384	262,941	—
Kathy Ordoñez ⁽²⁾	421,005	410,914	10,938
Lucy Shapiro, Ph.D.	142,718	136,275	—
Hannah A. Valentine, M.D.	28,992	—	—

- (1) Dr. Hunkapiller did not stand for re-election as a director nominee in 2021 but continued to serve as a member of our Board of Directors until the expiration of his term as a director at the Company’s 2021 annual meeting of stockholders, which was held on June 16, 2021.
- (2) Ms. Ordoñez’ figures include the stock options and RSUs granted to her during her tenure as Chief Commercial Officer and Executive Vice President from October 30, 2017, through 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 III director at the Annual Meeting will serve for a three-year term expiring on the date of the 2025 annual meeting of stockholders.

Our Board of Directors has nominated David Botstein, Ph.D., William Ericson and Kathy Ordoñez for election as Class III 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 III 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 III Nominees (term for which nominated expires in 2025)			
David Botstein, Ph.D.	79	Chief Scientific Officer of Calico Life Sciences	2012
William Ericson	63	Founding Partner of Wildcat Venture Partners	2004
Kathy Ordoñez	71	Director	2014
Class I Directors (term expires in 2023)			
Christian O. Henry	54	Chief Executive Officer and President of Pacific Biosciences of California, Inc.	2018
John F. Milligan, Ph.D.	61	Chair of the Board of Directors of Pacific Biosciences of California, Inc.	2013
Lucy Shapiro, Ph.D.	81	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 Nominees (term expires in 2024)			
Randy Livingston	68	Vice President for Business Affairs and Chief Financial Officer of Stanford University	2009
Marshall Mohr	66	Executive Vice President, Global Business Services of Intuitive Surgical, Inc.	2012
Hannah A. Valantine, M.D.	70	Professor of Medicine (Cardiovascular) at the Stanford University Medical Center	2021

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 III director nominees, is provided in the “Board of Directors and Committees of the Board” section above.

Required Vote

The number of votes cast “FOR” a director nominee must exceed the number of votes cast “AGAINST” that nominee. Abstentions will have no effect on the proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE “FOR” EACH OF THE THREE CLASS III DIRECTOR NOMINEES TO SERVE AS A CLASS III 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, 2022. 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 is a summary of the Ernst & Young fees for professional services rendered for the fiscal years ended December 31, 2021 and December 31, 2020 (in thousands):

Fee Category	2021	2020
Audit Fees	\$2,035	\$1,255
Audit-related Fees	260	—
Tax Fees	—	—
All Other Fees	4	—
Total Fees	\$2,299	\$1,255

Audit Fees consisted of professional services rendered in connection with the audit of our annual consolidated financial statements, including the audit of internal control over financial reporting, 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, comfort letters, consents, and statutory audits required in non-U.S. jurisdictions.

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 or internal control over financial reporting and are not reported under "Audit Fees," as well as fees related to due diligence related to mergers and acquisitions.

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

All Other Fees consisted of fees for products and services other than the services reported above, including 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, 2022.**

PROPOSAL 3: APPROVAL OF AMENDMENT TO THE 2020 EQUITY INCENTIVE PLAN

General

We are seeking stockholder approval of an amendment to the Company's 2020 Equity Incentive Plan (the "2020 Plan"), solely to increase the number of shares of our common stock ("Shares") reserved for issuance under the 2020 Plan by 18,000,000 Shares, 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.

As previously disclosed, 2021 was a productive year for us as we set out to transform the Company, scale our business, and drive adoption for our advanced sequencing technologies. To continue to drive such transformation, we made significant progress in building out our senior management team including through the hiring in 2021 of our Chief Operating Officer; Chief Commercial Officer; Senior Vice President, Research and Development; Senior Vice President, Research; and Senior Vice President, Development. These hires closely follow the hires of our Chief Executive Officer and Chief Financial Officer during the latter half of 2020. We also continued to expand our employee base both organically as well as through strategic transactions, including our acquisitions of Circulomics, Inc. in July 2021 and Omniome, Inc. in September 2021. Our headcount of full-time employees grew year over year by more than 75%, including more than doubling our employees in research and development, expanding our general and administration functions by 81%, and expanding our marketing, sales and customer support by approximately 76%. As we seek to accelerate our growth and transformation, the need for providing competitive compensation, including grants of equity awards to recruit, retain and motivate our talented employees is particularly critical.

The 2020 Plan was last approved by stockholders on August 4, 2020, in connection with the 2020 Plan's adoption. Other than the Share increase pursuant to the amendment subject to the stockholder approval under this proposal, the 2020 Plan has not been amended since stockholders last approved the 2020 Plan on August 4, 2020.

Upon recommendation of the Compensation Committee, the Board of Directors approved the amendment to the 2020 Plan on April 12, 2022, subject to approval of the stockholders at the Annual Meeting. If stockholders approve the amendment to the 2020 Plan, then the amended 2020 Plan will replace the version of the 2020 Plan currently in effect. If stockholders do not approve the amendment to the 2020 Plan, the 2020 Plan will continue in effect without the amendment increasing the number of Shares reserved for issuance under it, and we will continue to grant awards under the 2020 Plan, subject to its current terms, conditions and limitations, using the Shares available for issuance thereunder. The Compensation Committee and the Board of Directors believe the additional Shares to be made available under the 2020 Plan are necessary and important for achieving our recruiting, retention and incentive goals.

Considerations in Determining Share Increase Under the 2020 Equity Incentive Plan

In determining and recommending to the Board of Directors the number of additional Shares to request under the 2020 Plan, the Compensation Committee considered a number of factors, including the following:

- Attracting and Retaining Talent. The Compensation Committee considered the importance of an appropriately-sized pool of Shares to attract, retain and engage high-caliber talent.
- Equity Compensation is Important in a Competitive Labor Market. In the global life sciences industry, there is significant competition for experienced and educated individuals with the skills necessary to execute our strategy and advance our business. Our success depends on such key employees. To compete in a competitive market for talent, we believe that it is important to offer

competitive compensation packages that include equity and cash components. Equity compensation is an important part of our employment value proposition.

- Historical Grant Practices. The Compensation Committee considered our historical grants of equity awards in the past three years. Under our equity incentive plans, in fiscal years 2019, 2020 and 2021, we granted stock options and restricted stock units covering 900,486 Shares, 8,997,817 Shares and 6,875,266 Shares (which includes the maximum number of Shares subject to PRSUs, but which excludes any assumed awards in connection with acquisitions and purchase rights under the ESPP), respectively, for a total of 16,773,569 Shares over such three-year period. In our efforts to transform the Company, we have significantly expanded our commercial and research and development capabilities, substantially increased our headcount, and continue to seek talented individuals to join our Company in order to achieve our business success. The increases in the number of Shares in 2020 and 2021 were largely attributable to changes in senior management that occurred during those years, including for the Chief Executive Officer and Chief Financial Officer in the latter half of 2020, and the Chief Operating Officer, Chief Commercial Officer, and various Senior Vice Presidents and Vice Presidents in 2021, in addition to other related increases in headcount resulting from the Company's acquisitions, of Omniome, Inc. and Circulomics, Inc.
- Forecasted Usage. If stockholders approve the amendment to the 2020 Plan, the Compensation Committee currently anticipates that we likely will not request additional Shares for the 2020 Plan until our 2024 Annual Meeting of Stockholders at the earliest, based on our current share price, recent burn rate history, and historical new hire and annual grant practices. The Compensation Committee further took into account the impact of any expected future changes in employee population on projected share use, in particular given our ongoing efforts to execute on our transformation. In determining this estimate, the Compensation Committee considered the 1,065,434 Shares that were available for issuance under all of our equity incentive plans as of March 31, 2022, as well as our expectations that through the anticipated date of our 2024 Annual Meeting of Stockholders, (a) we would grant options and restricted stock units covering approximately 20,486,725 Shares, and (b) approximately 1,984,469 Shares would be cancelled or forfeited under outstanding options and restricted stock units. The net grants (that is, the grants less cancellations and forfeitures) during this period would be approximately 18,502,256 Shares. However, future circumstances and business needs, such as higher than expected headcount increases, including officers and other key employees to support growth of our businesses or any merger and acquisition activity, may result in our seeking more Shares sooner than 2024. In addition, certain of our employee awards are based on value and any significant changes in our stock price as compared to the stock price we assumed for forecasting purposes could cause our actual Share usage to deviate significantly from our anticipated Share usage.
- Monitoring of Dilution, Burn Rate and Overhang. In connection with contemplating the number of Shares to authorize for issuance under the 2020 Plan, the Compensation Committee considered the potential dilution to current stockholders, as measured by the burn rate and overhang, and projected future share usage.
 - Burn rate measures our usage of Shares for our equity plans as a percentage of total outstanding Shares of our common stock. For fiscal years 2019, 2020 and 2021, our burn rates were 0.7%, 5.7% and 3.1%, respectively, resulting in a three-year weighted average burn rate of 3.2%. The rates were calculated by dividing the number of Shares subject to stock options granted, restricted stock units granted, and for 2019, performance-based restricted stock units that vested, divided by the weighted average number of Shares outstanding during the year. These rates exclude, for purposes of the numerator, awards assumed by us in connection with an acquisition transaction during the year.
 - As of March 31, 2022, our overhang is 19.5%. For this purpose, we calculated overhang as (a) the sum of (i) 15,263,436 Shares subject to outstanding stock options granted under our equity plans, plus (ii) 587,752 Shares subject to outstanding stock options assumed by us in our acquisitions of Omniome, Inc. in 2021, plus (iii) 8,876,256 Shares subject to outstanding restricted stock units granted under our equity plans, plus (iv) 1,065,434 Shares available for future issuance under our equity plans, plus (v) 18,000,000 additional Shares requested divided

by (b) 224,329,439, which is the total number of outstanding Shares of our common stock as of March 31, 2022. With respect to each of our 2020 Equity Incentive Plan, 2010 Equity Incentive Plan (the “2010 Plan”), 2010 Director Plan (the “Director Plan”), Omniome Equity Incentive Plan of Pacific Biosciences of California, Inc. (the “Omniome Plan”), and 2020 Inducement Equity Incentive Plan (the “Inducement Plan”), the following table shows, as of March 31, 2022, the number of Shares subject to outstanding options and restricted stock units granted under such plans, the weighted average exercise price of such options, and the weighted average remaining term of such options:

Equity Plan ⁽¹⁾	Number of Shares Subject to Outstanding Options (#)	Weighted Average Exercise Price of Outstanding Options (\$)	Weighted Average Remaining Term of Outstanding Options (Years)	Number of Shares Subject to Outstanding Restricted Stock Units (#)
2020 Plan	5,943,499	11.56	9.3	5,271,095
2010 Plan ⁽²⁾	6,111,123	5.09	4.2	1,559,025
Director Plan ⁽²⁾	688,334	4.64	4.2	—
Omniome Plan	861,358	6.83	9.0	1,110,386
Inducement Plan	2,246,874	30.48	8.8	935,750
All Equity Plans	15,851,188	11.19	7.0	8,876,256

- (1) The Company previously maintained a 2005 Stock Plan, which terminated and under which no new awards have been or will be granted since such termination. In addition, no awards remain outstanding under such plan.
- (2) The 2010 Plan and Director Plan terminated and no new awards have been or will be granted since such terminations.

In determining the number of Shares that would become available under our 2020 Plan, the Compensation Committee considered the resulting overhang as an additional metric to measure the cumulative effect of equity compensation.

- The Compensation Committee is cognizant that the Company’s equity compensation programs have a dilutive effect on our stockholders, and continuously strives to balance this concern with our need to compete for talent using practices that are prevalent in the market, including equity grants. We will continue to monitor our equity use in future years in an attempt to ensure that our burn rate is within competitive market norms.
- Compensation Consultant Input. The Compensation Committee considered share modeling recommendations provided by its third-party compensation consultant, in addition to input from Alliance Advisors.

Reasons for Voting for the Proposal

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

- *No “Evergreen” Provision; 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 maintain a clawback policy, as discussed further in the section of this Proxy Statement entitled “Compensation Discussion and Analysis.”

Summary of the 2020 Equity Incentive Plan

The following is a summary of the principal features of the 2020 Plan and its operation. 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 to this Proxy Statement or accessed from the SEC’s website at www.sec.gov.

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 and subsidiaries, and members of our Board of Directors; 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. Prior to the amendment of the 2020 Plan, and subject to adjustment upon certain changes in our capitalization as described in the 2020 Plan, as previously approved by our Board of Directors and its Compensation Committee in April 2020 and our stockholders on August 4, 2020, the maximum aggregate number of Shares that was available for issuance under the 2020 Plan was equal to (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 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. Our stockholders are being asked to approve an increase of 18,000,000 Shares for issuance under the 2020 Plan. If our stockholders approve this increase, the maximum number of Shares under clause (i) above that may be issued under the 2020 Plan will be increased to 29,000,000 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 of Directors or a committee of individuals satisfying applicable laws appointed by the Board of Directors, 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 (“Rule 16b-3”), such contemplated transactions will be structured to satisfy the requirements for exemption under Rule 16b-3. 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 permit participants to 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 relating to certain adjustments in our capitalization or certain corporate transactions. 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 of Directors. Incentive stock options, within the meaning of Section 422 of the Code, may be granted only to our employees or employees of any of our parent or subsidiaries. As of February 28, 2022, the individuals eligible to participate in the 2020 Plan consisted of approximately 774 employees (including four executive officers), eight non-employee directors, and three consultants.

Non-Employee Director 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 Stockholder”) 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 April 12, 2022, the closing price of a Share on The Nasdaq Global Select Market was \$8.12 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 Stockholder 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 status as a service provider 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 of Directors 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 administrator may amend, alter, suspend, or terminate 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 applicable laws. The 2020 Plan will terminate automatically 10 years from the effective date of the 2020 Plan, unless terminated earlier in accordance with the terms of the 2020 Plan. 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.” As of the date of the Annual Meeting and pursuant to our outside director compensation policy as most recently amended in April 2021, 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 \$200,000 (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 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 at the Annual Meeting the amendment to the 2020 Plan to increase the Shares issuable under the 2020 Plan, then the 2020 Plan will continue under its current terms, without such amendment, until its automatic termination in August 2030.

Name of Non-Employee Director or Group	Grant Date Fair Value of Stock Options (\$)	Number of Shares Subject to Stock Options (#) ⁽¹⁾
David Botstein, Ph.D.	200,000	—
William Ericson	200,000	—
Randy Livingston	200,000	—
John F. Milligan, Ph.D.	200,000	—
Marshall Mohr	200,000	—
Kathy Ordoñez	200,000	—
Lucy Shapiro, Ph.D.	200,000	—
Hannah A. Valantine, M.D.	200,000	—
All current non-employee directors, as a group (8) people	<u>1,600,000</u>	

(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 cannot be determined in advance because the granting of such Awards is subject to the discretion of the administrator (other than the awards for our non-employee directors described above, which are automatically granted). 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 2020 Plan, the Inducement Plan and the Omniome Plan during our fiscal year 2021, with respect to options and restricted stock units to the individuals and groups set forth in the table below.

Name of Individual and Positions, or Group	Grant Date Fair Value of Stock Options (\$)	Number of Shares Subject to Stock Options (#)	Aggregate Grant Date Fair Value of Restricted Stock Units (\$)	Number of Shares Subject to Restricted Stock Units (#)
Christian O. Henry, <i>Chief Executive Officer and President</i>	752,502	30,000	695,550	15,000
Susan G. Kim, <i>Chief Financial Officer</i>	316,051	12,600	292,131	6,300
Mark Van Oene, <i>Chief Operating Officer</i> ⁽¹⁾	14,889,375	750,000	12,294,500	335,000
Peter Fromen, <i>Chief Commercial Officer</i> ⁽¹⁾	6,352,800	320,000	5,872,000	160,000
Denis Zaccarin, Ph.D., <i>Senior Vice President, Product Development</i>	504,176	20,100	466,019	10,050
All current executive officers, as a group (4 people) ⁽¹⁾	22,310,728	1,112,600	19,154,181	516,300
All current directors, who are not executive officers, as a group (8 people) ⁽²⁾	1,849,949	119,187	—	—
All employees, including all current officers who are not executive officers, as a group ⁽³⁾	36,611,527	1,887,085	112,687,102	3,207,209

- (1) Awards shown in the table next to the name of each the named executive officer were granted under the 2020 Plan, except the awards shown in the table for Mr. Van Oene and Mr. Fromen were granted under the Inducement Plan.
- (2) Awards shown in the table next to the name of each non-employee director were granted under the 2020 Plan.
- (3) Includes grants awarded under the 2020 Plan covering an aggregate of 2,299,530 Shares; grants awarded under the Inducement Plan covering an aggregate of 1,614,500 Shares; and grants awarded under the Omniome Plan covering an aggregate of 1,180,264 Shares.

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. Generally, 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 acquired 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, the participant 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. Generally, 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 an 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 excess, if any, of the fair market value (on the exercise date) of the exercised shares 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. In general, 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 an 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. Generally, a participant will not have taxable income at the time an award of restricted stock, restricted stock units, performance units or performance shares, are granted. Instead, the participant generally will recognize ordinary income in the first taxable year in which the participant's 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 the recipient 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 the individual's 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 amendment to our 2020 Plan requires the affirmative “FOR” vote of a majority of the shares present remotely or represented by proxy entitled to vote at the 2022 Annual Meeting. Abstentions will have the effect of a vote AGAINST the proposal.

Board Recommendation

We believe strongly that the approval of the amendment to 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 amendment to the 2020 Plan.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE APPROVAL OF THE PROPOSAL TO AMEND THE 2020 EQUITY INCENTIVE PLAN TO INCREASE THE NUMBER OF SHARES AUTOHRIZED FOR ISSUANCE THEREUNDER BY 18,000,000 SHARES.

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 2021, 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

Kathryn Keho, who is the daughter of Dr. Michael Hunkapiller, our former Chief Executive Officer, President and Director, previously served as our Senior Director, Market Development. Ms. Keho separated from the Company on March 15, 2021. During 2021, Ms. Keho received an aggregate salary and severance of \$236,833.

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. Hannah A. Valantine, M.D. is a Professor of Medicine (Cardiovascular) at the Stanford University Medical Center. For the years ended December 31, 2021 and 2020, we recognized revenue relating to Stanford University with a total value of approximately \$676,000 and \$260,000, respectively. As of December 31, 2021 and 2020, approximately \$45,000 and \$62,000, respectively, out of our accounts receivable balance of \$24,241,000 and \$16,837,000, respectively, related to Stanford University.

Other Transactions

We have granted stock options and restricted stock units to our executive officers and certain of our directors. See the sections titled "Executive Compensation — Outstanding Equity Awards at 2021 Year-End" and "Board of Directors and Committees of the Board — Director Compensation" 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 March 31, 2022 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, director nominees, and executive officers as a group. As of March 31, 2022, 224,329,439 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.

Name and address of beneficial owner ⁽¹⁾	Number of Shares Owned ⁽²⁾	Right to Acquire Shares ⁽³⁾	Total Beneficial Ownership	Percent of Class ⁽⁴⁾
5% Stockholders:				
ARK Investment Management, LLC ⁽⁵⁾	26,383,103	—	26,383,103	11.8%
Jackson Square Partners, LLC ⁽⁶⁾	22,423,915	—	22,423,915	10.0%
SB Northstar LP ⁽⁷⁾	1,886,107	20,689,650	22,575,757	9.2%
The Vanguard Group ⁽⁸⁾	19,854,876	—	19,854,876	8.9%
BlackRock Inc. ⁽⁹⁾	16,569,244	—	16,569,244	7.4%
Capital International Investors ⁽¹⁰⁾	12,106,318	—	12,106,318	5.4%
Nikko Asset Management Americas, Inc. ⁽¹¹⁾	11,915,025	—	11,915,025	5.3%
Named executive officers, directors, and director nominees:				
Christian O. Henry	98,608	767,908	866,516	*
David Botstein, Ph.D.	—	83,310	83,310	*
William Ericson	1,336	208,310	209,646	*
Randy Livingston	—	183,310	183,310	*
John F. Milligan, Ph.D.	110,000	126,782	236,782	*
Marshall Mohr	25,000	243,310	268,310	*
Kathy Ordoñez	36,093	419,931	456,024	*
Lucy Shapiro, Ph.D.	—	141,644	141,644	*
Hannah A. Valantine, M.D.	—	—	—	—
Peter Fromen	20,280	119,111	139,391	*
Susan G. Kim	19,229	172,227	191,456	*
Mark Van Oene	43,778	268,048	311,826	*
Denis Zaccarin, Ph.D.	59,279	232,505	291,784	*
All current directors and executive officers as a group (12 people) ⁽¹²⁾	354,324	2,733,891	3,088,215	1.4%

* 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.
- (3) Represents shares issuable upon exercise of options exercisable within 60 days after March 31, 2022 and RSUs that vest within 60 days after March 31, 2022; however, unless otherwise indicated, these shares do not include any options and RSUs awarded after March 31, 2022.

- (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 9, 2022 reporting on ownership as of December 31, 2021 by ARK Investment Management LLC, which has sole voting power as to 24,547,126 of these shares, shared voting power as to 1,409,647 of these shares and sole dispositive power as to 26,383,103 of these shares. The address of this entity is 3 East 28th Street, 7th Floor, New York, NY 10016.
- (6) Based on information taken from Schedule 13G/A filed on February 7, 2022 reporting on ownership as of December 31, 2021 by Jackson Square Partners, LLC, which has sole voting power as to 18,175,371 of these shares and sole dispositive power as to 22,423,915 of these shares. The address of this entity is One Letterman Drive, Building A, Suite A3-200, San Francisco, CA 94129.
- (7) Consists of 1,886,107 shares beneficially owned by SB Northstar LP, which is an indirect subsidiary of SoftBank Group Corporation, and 20,689,650 shares issuable at the election of the issuer upon conversion of the 1.50% Convertible Senior Notes due February 15, 2028 beneficially owned by SB Northstar LP's affiliate NSL IV LP, in each case as of March 31, 2022. The principal business address of SB Northstar LP is 190 Elgin Avenue, George Town, Grand Cayman KY1-9008, Cayman Islands. The principal business address of SoftBank Group Corporation is Tokyo Portcity Takeshiba, Office Tower, 1-7-1, Kaigan, Minato-ku, Tokyo, 105-7537 Japan.
- (8) Based on information taken from Schedule 13G/A filed on February 10, 2022 reporting on ownership as of December 31, 2021 by The Vanguard Group, which has shared voting power as to 256,618 of these shares, sole dispositive power as to 19,417,297 of these shares and shared dispositive power as to 437,579 of these shares. The address of this entity is 100 Vanguard Blvd., Malvern, PA 19355.
- (9) Based on information taken from Schedule 13G/A filed on February 3, 2022 reporting on ownership as of December 31, 2021 by BlackRock, Inc., which has sole voting power as to 16,081,442 of these shares and sole dispositive power as to 16,569,244 of these shares. The address of this entity is 55 East 52nd Street, New York, NY 10055.
- (10) Based on information taken from Schedule 13G/A filed on February 11, 2022 reporting on ownership as of December 31, 2021 by Capital International Investors, which has sole voting and dispositive power as to 12,106,318 of these shares. The address of this entity is 333 South Hope Street, 55th Floor, Los Angeles, CA 90071.
- (11) Based on information taken from Schedules 13G filed on February 14, 2022 by Nikko Asset Management Americas, Inc. and on February 4, 2022 by Sumitomo Mitsui Trust Holdings, Inc. and Nikko Asset Management Co., Ltd. These Schedules 13G indicate that as of December 31, 2021, Nikko Asset Management Americas, Inc. was the beneficial owner of 11,915,025 shares of our common stock and that such shares are owned, or may be deemed to be beneficially owned, by its parent holding companies, Sumitomo Mitsui Trust Holdings Inc. and Nikko Asset Management Co., Ltd. Nikko Asset Management Americas, Inc., Sumitomo Mitsui Trust Holdings, Inc. and Nikko Asset Management Co., Ltd. reported having shared voting and dispositive power as to all of these shares. The business address for Nikko Asset Management Americas, Inc. is 605 Third Avenue, 38th Floor, New York, NY 10158. The business address for Sumitomo Mitsui Trust Holdings, Inc. is 1-4-1 Marunouchi, Chiyoda-ku, Tokyo 100-8233, Japan and for Nikko Asset Management Co., Ltd. is Midtown Tower, 9-7-1 Akasaka, Minato-ku, Tokyo 107-6242, Japan.
- (12) Number of shares owned does not include shares owned by Dr. Zaccarin because Dr. Zaccarin ceased to serve as an executive officer after January 8, 2021.

EXECUTIVE OFFICERS

Biographical data for each of our current executive officers, including their ages, as of March 31, 2022, is set forth below, except Mr. Henry's biography, which is included under the heading "Board of Directors and Committees of the Board" above.

Executive Officers

Susan Kim, age 46, has served as the Chief Financial Officer for PacBio since September 2020. Previously Ms. Kim served as Chief Financial Officer of data.ai, a provider of mobile data and analytics, since 2018, overseeing finance, legal, IT and people functions. From 2016 to 2017, Ms. Kim served as Chief Financial Officer of Katterra Inc., a construction technology company, overseeing finance and legal functions. From 2010 to 2016, Ms. Kim held various finance roles at KLA Corporation, most recently as Vice President, Global Business & Operations Finance. Ms. Kim currently serves as a member of the board of directors of Pivot Bio, a leading nitrogen innovator in agriculture. Ms. Kim holds a B.S. in chemical engineering from Stanford University and an M.B.A. and master's degree in engineering management from Northwestern University, Kellogg School of Management.

Peter Fromen, age 47, joined us in January 2021 as our Chief Commercial Officer. Mr. Fromen previously served as Global Vice President of Population Genomics and Precision Health of Illumina since 2019. Since joining Illumina in 2007, Mr. Fromen held various positions, including Global Vice President of Population Genomics, Senior Director of Investor Relations, Senior Director of Product Marketing Applications, Services and Automation, and Senior Director of Market Development and Product Marketing Genomic Solutions. Mr. Fromen holds a B.A. in History from Kenyon College and an M.B.A. from Arizona State University, W.P. Carey School of Business.

Mark Van Oene, age 49, joined us in January 2021 as our Chief Operating Officer. Mr. Van Oene previously served as Senior Vice President and Chief Commercial Officer of Illumina, Inc. ("Illumina"), a provider of DNA sequencing systems, since 2017. Since joining Illumina in 2006, Mr. Van Oene held various positions, including Senior Vice President and General Manager, Americas Commercial Operations, and Vice President, Global Sales. Mr. Van Oene currently serves as a member of the board of directors of Dante Labs Inc., a global leader in genomics and precision medicine. Mr. Van Oene holds a B.S. in biochemistry from Western University.

EXECUTIVE COMPENSATION

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, 2021, our named executive officers were:

Name	Position
Christian O. Henry	Chief Executive Officer and President
Susan G. Kim	Chief Financial Officer
Mark Van Oene	Chief Operating Officer
Peter Fromen	Chief Commercial Officer
Denis Zaccarin, Ph.D.	Senior Vice President, Product Development

Executive Summary

PacBio is a premier life science technology company that is designing, developing and manufacturing advanced sequencing solutions to help scientists and clinical researchers resolve genetically complex problems. Our products and technology under development stem from two highly differentiated core technologies focused on accuracy, quality and completeness which include our existing HiFi long read sequencing technology and our emerging short read Sequencing by Binding (SBB[®]) technology. Our products address solutions across a broad set of applications including human germline sequencing, plant and animal sciences, infectious disease and microbiology, oncology, and other emerging applications. Our focus is on providing our customers with advanced sequencing technologies with higher throughput and improved workflows that we believe will enable dramatic advancements in routine healthcare. Our customers include academic and governmental research institutions, commercial testing and service laboratories, genome centers, public health labs, hospitals and clinical research institutes, contract research organizations (CROs), pharmaceutical companies and agricultural companies.

Business Highlights

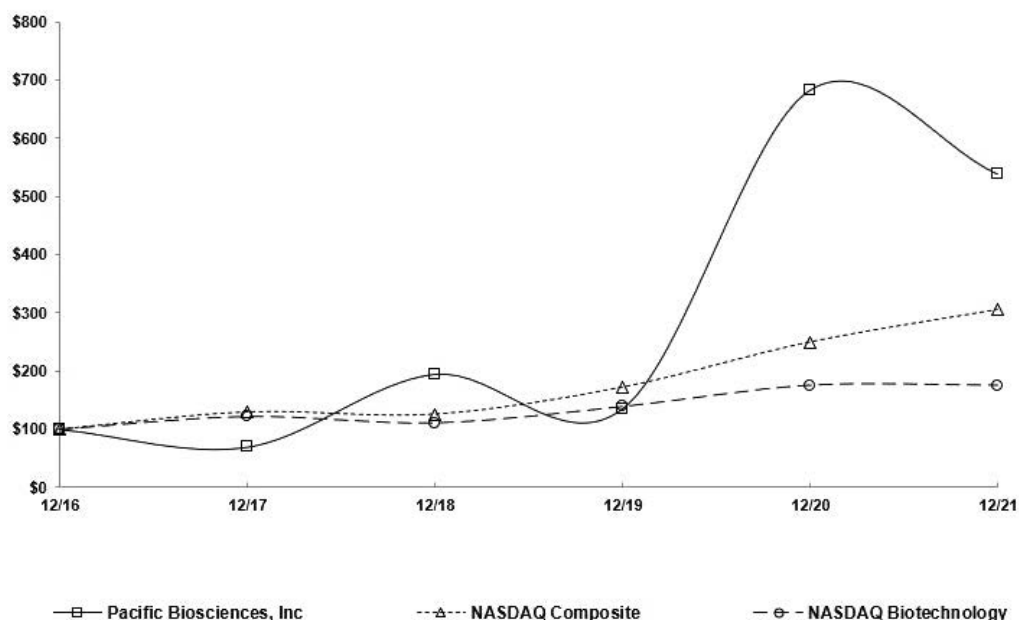
We finished 2021 with record revenue performance and system placements. We have outlined below a few recent financial and operational highlights over the past year:

- Recorded revenue of \$130.5 million in 2021, a 65% increase compared with \$78.9 million in 2020.
- Placed 171 Sequel II/Ile systems during the year compared to 89 Sequel II/Ile systems placed in 2020.
- Acquired Omniome, which adds a highly differentiated short-read sequencing technology capable of delivering increased sequencing accuracy and establishes a San Diego presence.
- Acquired Circulomics, a leader in high molecular weight DNA extraction to enable path toward an end-to-end automated workflow.
- Launched the HiFiViral SARS-CoV-2 Kit — a fully kitted end-to-end solution for COVID-19 surveillance testing that public health laboratories can use to identify new SARS-CoV-2 variants and detect circulating variants and trends within a population.
- Developed significant enhancements to the Sequel II/Ile platform that are expected to be released in April of this year, including on-instrument methylation calling, standardized gene editing QC workflows, and high throughput setup capabilities, including automation scripts for liquid handling.

- Announced a collaboration with Genomics England to study the use of HiFi sequencing technology to identify genetic variants in unexplained rare disease cases by sequencing a cohort of samples previously analyzed with short-read sequencing technology.
- Partnered with Berry Genomics to develop a long-read desktop sequencing instrument for the clinical market in China.
- Broadened our clinical research collaborations with several leading institutions, including ARUP Laboratories, the Care4Rare Consortium, Children's Mercy Kansas City, Rady Children's Institute for Genomic Medicine, and UCLA Health, to further demonstrate the utility of HiFi sequencing.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Pacific Biosciences, Inc, the NASDAQ Composite Index
and the NASDAQ Biotechnology Index



*\$100 invested on 12/31/16 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.



Highlights of our Executive Compensation Practices

Our Compensation Committee has structured our executive compensation program to ensure that our NEOs are compensated in a manner consistent with stockholder interests as well as with competitive and appropriate pay practices for our industry and our competitive environment. It is designed to reward achievement of specific strategic goals that we believe will advance our business strategy and create long-term value for our stockholders. To achieve this, the Compensation Committee utilizes the following primary elements:

Element	Performance Period	Objective
Base Salary	Annual	<ul style="list-style-type: none"> • Recognizes an individual's contribution and performance • Rewards for the experience, education and criticality to the business • Serves as an important retention vehicle
Short-term Cash Incentives	Annual	<ul style="list-style-type: none"> • Rewards achievement of financial and non-financial goals directly tied to the strategic priorities • In 2021, the cash incentive goals included financial measures, advancement of the research and development portfolio, quality related objectives, commercial and customer success and other operational goals.
Annual Equity Awards (stock options and RSUs)	Long-term	<ul style="list-style-type: none"> • Supports the achievement of strong stock price growth • Aligns the interests of executives and stockholders over time • Serves as an important retention tool with awards vesting over time tied to continued service • Options may vest over one to four years, with a ten-year term • RSUs vest in equal installments over two to four years, on each anniversary of the grant date

Governance of Our Compensation Program

Our compensation committee regularly reviews best practices in executive compensation and is committed to maintain strong governance standards and stockholder-friendly practices. Our key compensation practices include:

 What We Do	 What We Avoid
✓ Pay for performance philosophy and culture	✗ Excise tax gross-ups
✓ Majority of pay is performance-based and variable	✗ Significant perquisites
✓ Double-trigger change-in-control equity provisions	✗ Guaranteed salary increases
✓ Compensation recoupment ("clawback") policy	✗ Contracts that guarantee employment
✓ Engage an independent compensation consultant	✗ Margin accounts, hedging, pledging, derivatives or short sale transactions in Company stock
✓ Responsible use of shares in our long-term incentive program	✗ Repricing stock options without stockholder approval
✓ Annually assesses compensation risk	

Recent “Say-on-Pay” Vote

At our August 2020 annual meeting, we held a nonbinding, stockholder advisory vote to approve the compensation of our named executive officers, commonly referred to as a “say-on-pay” vote. We received favorable support with over 97%, a majority of stockholder votes cast approving the proposal. Our Compensation Committee appreciates this strong support and believes it reflects the efforts to properly align pay with performance while also aligning management and stockholder interests. In addition, at our May 2017 annual meeting, 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 and stockholders concerns when considering future compensation decisions. Because of our voting schedule, a say-on-pay vote was not on the ballot during the 2021 annual meeting and is not on the ballot for the 2022 annual meeting, however, stockholders will be able to participate in a say-on-pay vote during the 2023 annual meeting. We value the opinions of our stockholders.

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, consistent with our pay for performance objectives, 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 and 2020 included restricted stock units and performance-based restricted stock units and in 2021 included a mixture of both stock options and restricted stock units). Likewise, we maintain compensation programs that cover the majority of employees 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, which typically occurs during the first quarter of the year. 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.

Process for Setting Executive Compensation

Role of Compensation Committee and Board

The Compensation Committee has the authority to review and approve the compensation of all 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. 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 2021, our Compensation Committee continued the engagement of Aon's Human Capital Solutions practice, a division of Aon plc ("Aon"), 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 Aon 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 Aon 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 Aon to evaluate the following components to assist the Compensation Committee in establishing fiscal year 2021 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.

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

The Compensation Committee conducted a specific review of its relationship with Aon in 2021 and 2022. In 2022 the Compensation Committee determined that Aon's work for the Compensation Committee did not raise any conflicts of interest, and that Aon is independent. Aon's work has conformed to the independence factors and guidance provided by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the Securities and Exchange Commission and The Nasdaq Stock Market.

Use of Market Data and Peer Group Analysis

Historically, our Compensation Committee had not relied on a specific peer group in order to review and make decisions regarding the compensation of our executive officers. Prior to 2021, when considering executive compensation decisions, our Compensation Committee typically reviewed the current compensation practices of comparable publicly held companies in the technology and life sciences industries, in particular to understand the demand and competitiveness for attracting and retaining an individual with each named executive officer's specific expertise and experience. For 2020 executive compensation decisions (which affected the compensation levels in effect for our named executive officers at the start of 2021), the Compensation Committee relied on custom survey data provided by Aon in late 2019 from the Radford Global Life Science Survey and Radford Technology Survey (the "Survey Data"), to examine market information that was specific to the technical and scientific nature of the role requirements for our then named executive officers. The Survey Data related to companies in the technology and life sciences industries generally within a revenue range of \$50 million to \$300 million and a market capitalization between \$250 million and \$2.5 billion, to reflect the market for talent at companies of a similar profile as the Company.

This Survey Data information was used by the Compensation Committee to assist in determining the overall level of 2020 pay including base salary, target variable cash incentives, and equity awards, as applicable, for the named executive officers. Aon provided the Compensation Committee with market data and analysis to help guide the Compensation Committee's decision making regarding the compensation packages for each of the named executive officers, including Mr. Henry, Ms. Kim and Dr. Zaccarin. In connection with the hires of Mr. Van Oene and Mr. Fromen in January 2021, Aon updated such Survey Data in order to assist the Compensation Committee in setting appropriate new-hire compensation for such named executive officers.

In the fourth quarter of 2020, the Compensation Committee established a peer group in order to assist it in setting 2021 compensation for the named executive officers (the "Peer Group"). The Compensation Committee believed that the Company would benefit from a more targeted set of market data to review in light of the highly competitive market for talent, the then recent transition of senior management, and market practices regarding use of peer companies in setting executive compensation. The Compensation Committee

further believed that a custom peer group would enable more informed and detailed analysis regarding peer practices, including among specific direct peers and competitors, aspirational peers, and smaller companies relative to the Company.

Upon consultation with Aon and a review of market and peer practices, the Compensation Committee set the following criteria for consideration:

- **Industry** — primary emphasis on life science tools, diagnostics and medical technology companies, with a secondary consideration for commercial biotechnology industry companies
- **Revenues** — a range of approximately 0.5x to 3.0x of our then trailing 12-month revenue
- **Market Capitalization** — a range of approximately 0.3x to 3.0x of our then current market capitalization

Using these criteria, the Compensation Committee approved the following 19 companies as our peer group:

10x Genomics, Inc.	GenMark Diagnostics, Inc.	Natera, Inc.
Axonics, Inc.	Guardant Health, Inc.	NeoGenomics, Inc.
Berkeley Lights, Inc.	Invitae Corporation	Personalis, Inc.
CareDx, Inc.	iRhythm Technologies, Inc.	Quanterix Corporation
Castle Biosciences, Inc.	Luminex Corporation	Twist Bioscience Corporation
Codexis, Inc.	NanoString Technologies, Inc.	Veracyte, Inc.
Fluidigm Corporation		

Role of Executive Officers in Compensation Decisions

Prior to the 2020 CEO and CFO role transitions, for executive officers other than our Chief Executive Officer and Chief Financial Officer, our Compensation Committee had 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 recommended 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 advised our Compensation Committee regarding the executive compensation program's ability to attract, retain and motivate executive talent.

Following our 2020 leadership changes, our Compensation Committee has sought and considered input including during 2021 from our Chief Executive Officer regarding our executive officers' responsibilities, performance and compensation. Our Compensation Committee considers our Chief Executive 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, when discussing or making recommendations regarding his compensation.

Components of our Executive Compensation Program

Compensation of Our Named Executive Officers

The components of our executive compensation program consist primarily of base salary, incentive cash bonuses, equity awards and broad-based benefits programs. These are the same programs that are used

across the Company for alignment within our culture, and to reflect industry practices. 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.

Base Salary

For 2021, 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 our named executive officers based on:

- the executive's role and responsibilities,
- a review of any applicable market data;
- individual job performance; and
- internal pay comparisons across the team.

Mr. Van Oene, our Chief Operating Officer, and Mr. Fromen, our Chief Commercial Officer, joined the Company in early 2021. Their base salaries were negotiated and set by our Compensation Committee in connection with their hires. In setting such salaries, the Compensation Committee consulted Aon, which provided the Compensation Committee with market data in November 2020 under the Radford Global Life Science Survey and Global Sales Survey generally based on companies in the commercial bio/pharma, medical device and tools, and diagnostic companies with market capitalizations between approximately \$600 million and \$5 billion and revenues between \$50 million to \$300 million. The Compensation Committee believed that the base salary levels approved for each of Mr. Van Oene and Mr. Fromen were appropriate, as well as important in order to recruit each named executive officer to join the Company.

In mid-2021, the Compensation Committee reviewed the base salaries of each of our named executive officers based on the 2021 peer group data prepared by Aon and determined to provide a salary increase for each of Ms. Kim and Dr. Zaccarin. The Compensation Committee did not consider such adjustments to be a material change to Ms. Kim's and Dr. Zaccarin's salary.

The annual base salaries for 2021 for our named executive officers were as follows:

Name	As of Fiscal Year End 2020 (\$)	As of Fiscal Year End 2021 (\$)	Change (%)
Christian O. Henry	650,000	650,000	0%
Susan G. Kim	415,000	430,000	3.6%
Mark Van Oene ⁽¹⁾	—	550,000	—
Peter Fromen ⁽²⁾	—	425,000	—
Denis Zaccarin	330,000	345,000	4.5%

(1) Mr. Van Oene was appointed as Chief Operating Officer effective January 8, 2021.

(2) Mr. Fromen was appointed as Chief Commercial Officer effective January 8, 2021.

Short-term Cash Incentives

Variable cash incentives, typically 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 target incentive opportunities for our named executive officers for 2021 were as follows:

Name	Target Incentive Opportunity for 2021 as Percentage of Base Salary	Target Incentive Opportunity for 2021 (\$)
Christian O. Henry	100%	650,000
Susan G. Kim	50%	215,000
Mark Van Oene	60%	330,000
Peter Fromen	50%	212,500
Denis Zaccarin	45%	155,250

In early 2021, upon the recommendation of the Compensation Committee, the Board of Directors approved our 2021 variable cash incentive program, under which the participating named executive officers were afforded the opportunity to earn awards based on the achievement of certain preestablished performance criteria. These performance criteria included:

- Exceeding \$115 million in fiscal year 2021 revenue (the “primary goal,” and each other goal set forth below, the “secondary goals”);
- Exceeding 48% in annual GAAP gross margin;
- Achieving quarterly revenue targets, determined on a GAAP basis, of \$27.0 million for Q1, \$30.1 million for Q2, \$33.3 million for Q3, and \$36.0 million for Q4;
- Increasing our Sequel II installed base by over 150 units;
- Accelerating certain product development portfolios (which includes 5 secondary goals);
- Improving certain tools necessary in managing our business (which includes 3 secondary goals);
- Improving certain product yield (which includes 3 secondary goals);
- Increasing hiring threshold of direct sales personnel;
- Driving certain research efforts; and
- Developing an inspired workforce, optimizing organizational structure including performing a research and development organization assessment during the first half of the year, and expanding commercial footprint (which includes 5 secondary goals).

The Compensation Committee and the Board of Directors believed that these primary and secondary goals were appropriate for 2021 given that the Company intended to expand its commercial workforce and advance the development of current products and future product candidates, we appointed a new Chief Commercial Officer and a new Chief Operating Officer, and the marketing team was revised and a new commission plan was implemented. Due to certain of the secondary goals relating to our product development portfolios, tools for managing our business, certain product yield, research efforts and workforce changes, 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.

The primary goal relating to annual revenue would be considered achieved at the target level if the Company achieved \$115 million in revenue for 2021. The minimum threshold for any achievement of annual revenue required the Company to attain \$100 million in revenue for 2021, which would be considered 80% achievement of the primary goal, and percentage achievement between the minimum and target levels of annual revenue would be determined using linear interpolation. If our 2021 revenue was achieved at the levels of at least \$120 million, \$130 million, or \$150 million, a revenue multiplier would apply at 1.1x, 1.2x, and 1.4x, respectively. In addition, bonuses under our 2021 variable cash incentive program were conditioned on our 2021 revenue being at least \$70 million. If such revenue level was not achieved under the primary goal, no bonuses would become payable under our program. Further, depending on individual performance during 2021, our Compensation Committee retained the discretion to adjust any bonus amounts

up or down within the range of 0% to 125% of the amount otherwise payable, which for our named executive officers generally is reserved for extraordinary achievements or factors. In 2021, no bonus amounts were adjusted as a result of individual performance. Consistent with prior years, we established our primary and secondary goals to be stretch goals that are intentionally challenging such that performance at target would require significant achievements across multiple performance criteria. For example, in 2019 and 2020, achievement versus the corporate objectives under the variable cash incentive program resulted in payouts of 90% and 80% of the target levels, respectively.

The performance objectives under our 2021 variable cash incentive program were not allocated any specific weighting at the beginning of the year, as the Board of Directors believed that many of the objectives naturally would weight towards revenue achievement. Given the criticality in 2021 of driving revenue, a key measure of our business success, the Board of Directors determined that it would be appropriate for the performance objectives to be measured based on the extent to which the objectives as a whole are achieved for the year. In addition, during the course of the 2021 year, the Compensation Committee and the Board of Directors recognized the increasing focus on revenue achievement and significantly reduced focus on achievement of gross margin. The Compensation Committee and the Board of Directors believed that for 2021, revenue achievement would be substantially more important for the success of the business. As a result, the Compensation Committee and the Board of Directors ultimately did not consider gross margin performance in the final performance objectives under our 2021 variable cash incentive program.

Typically, with respect to the variable cash incentive program, 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 program and the individual awards other than his own award. Based on the Compensation Committee's assessment, and the Board of Director's assessment with respect to the Chief Executive Officer's performance, 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.

Following 2021, the Compensation Committee and the Board of Directors reviewed the extent to which the performance objectives were achieved under our variable cash incentive program for the year with respect to primary goal and secondary goals. The Compensation Committee recommended, and the Board of Directors approved, the following achievements:

Performance Objectives	Achievement
<u>Primary Goal (Weighted at 75%)</u>	
Exceeding \$115 million in fiscal year 2021 revenue	\$130.5 million, resulting in achievement at 100%
<u>Secondary Goals (Weighted at 25%)</u>	
Achieving quarterly revenue	Score of 100, based on achieving or exceeding quarterly revenue targets of \$27.0 million for Q1, \$30.1 million for Q2, \$33.3 million for Q3, and \$36.0 million for Q4
Increasing our Sequel II installed base by over 150 units	Score of 110 based on an increase of Sequel II installed base by 171 units (from 203 systems in 2020 to 374 in 2021)
Accelerating certain product development portfolios	5 goals achieved at total score of 400
Improving certain tools necessary in managing our business	3 goals achieved at total score of 280
Improving certain product yield	3 goals achieved at total score of 185
Increasing hiring threshold of direct sales personnel	Score of 100
Driving certain research efforts	Score of 85

Performance Objectives	Achievement
Developing an inspired workforce, optimizing organizational structure including performing a research and development organization assessment during the first half of the year, and expanding commercial footprint	5 goals achieved at total score of 480
Total Score for Secondary Goals:	1740 (out of possible 2000), or 87% achievement

As a result, the primary goal was achieved at 100%, the secondary goals were achieved overall at 87%, and a revenue multiplier of 1.2x was applied to bonuses payable under the 2021 variable cash incentive program. Based on application of a weighting of 75% to the primary goal and 25% to the secondary goals, which reflected the Board of Director's view in the criticality of revenue achievement for 2021, the bonuses became payable at 116.1% of target bonus opportunities and our named executive officers received bonus payouts in the following amounts for 2021:

Name	2021 Target Bonus Opportunity (as a % of salary)	2021 Salary	2021 Actual Bonus (as a % of Target Bonus Opportunity)	2021 Actual Bonus (\$)
Christian O. Henry	100%	\$650,000	116.1%	\$754,650
Susan G. Kim	50%	\$430,000	116.1%	\$249,615
Mark Van Oene	60%	\$550,000	116.1%	\$375,782 ⁽¹⁾
Peter Fromen	50%	\$425,000	116.1%	\$241,981 ⁽¹⁾
Denis Zaccarin	45%	\$345,000	116.1%	\$180,245

(1) Mr. Van Oene and Mr. Fromen were appointed to their positions effective January 8, 2021. Their bonus amounts were prorated to reflect the period during which they were employed with us in 2021.

New Hire Signing Bonuses

In early 2021, we paid one-time cash signing bonuses to each of Mr. Van Oene and Mr. Fromen in connection with their hires in January 2021, in the amount of \$200,000 and \$125,000, respectively. These bonuses were negotiated with the applicable named executive officer in connection with his hire. The Compensation Committee believed that these bonuses were appropriate, including in part to compensate them for variable cash bonus awards they would otherwise receive from their former employers.

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. For 2021, the Compensation Committee and Board of Directors considered stock options and time-based RSUs. Accordingly, for annual equity awards, the Company granted to each of Mr. Henry, Ms. Kim, and Dr. Zaccarin equity awards in the form of stock options and time-based RSUs. The equity awards for Mr. Van Oene and Mr. Fromen were granted based on the terms offered to such named executive officer in connection with his hire. These were granted in the form of a mix of options and time-based restricted stock units, which the Compensation Committee believed was appropriate in order to align their interests with the development of long-term value to our stockholders. The Company may consider the use of PSUs next year, for at least a portion of the awards, to executives to further align their interests with that of our stockholders.

2021 Annual Equity Awards. In determining the annual equity awards for 2021 to the named executive officers, the Compensation Committee and the Board of Directors considered the Peer Group data provided by Aon 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 (if any, e.g., other than for newly hired executives). 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 allocated among 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. The 25th percentile, 50th percentile and 75th percentile pay range was provided to the Compensation Committee which in turn used this data as a guide in determining equity awards for our named executive officers, however, discretion was still observed by the Compensation Committee.

New Hire Equity Awards. In connection with each of Mr. Van Oene's and Mr. Fromen's hire effective January 8, 2021, the Company negotiated a new hire compensation package with such named executive officer as set forth in his offer letter. In reviewing the Survey Data for these named executive officers in late 2020 during the Company's recruiting process, the Compensation Committee considered, among other things, the number of shares subject to awards necessary to offer a compelling and competitive compensation package on a relative basis compared to their larger former employer.

The following table sets forth the number of shares of our common stock subject to the stock options and RSUs granted to our named executive officers for the year ended December 31, 2021:

Name	New Hire Equity Grants ⁽²⁾			
	RSUs (#)	Stock Options (#)	RSUs (#)	Stock Options (#)
Christian O. Henry	15,000	30,000	—	—
Susan G. Kim	6,300	12,600	—	—
Mark Van Oene ⁽³⁾	—	—	335,000	750,000
Peter Fromen ⁽⁴⁾	—	—	160,000	320,000
Denis Zaccarin	10,050	20,100	—	—

- (1) Represents awards granted under our 2020 Equity Incentive Plan.
- (2) Represents awards granted under our 2020 Inducement Equity Incentive Plan.
- (3) Mr. Van Oene was appointed as Chief Operating Officer effective January 8, 2021.
- (4) Mr. Fromen was appointed as Chief Commercial Officer effective January 8, 2021.

Other Compensation Policies and Practices

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; (2) engaging in transactions in publicly traded options, such as puts and calls, and other derivative securities with respect to the Company's securities; (3) pledging Company securities as collateral for loans; and (4) holding the Company's common stock in margin accounts.

Clawback Policy

We have 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.

During 2021, because Mr. Fromen, who is a United States citizen and resident, was seconded to work in the Company's UK office, he was provided with certain living expenses, UK comprehensive medical insurance and tax equalization benefits pursuant to our tax equalization policy.

Change in Control and 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 2021, 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 2021, and intends to continue to maintain, an approach to executive compensation that strongly links pay to performance.

Equity Grant Practices

We maintain an equity award granting policy, pursuant to which stock options and other equity awards granted to our employees below the level of vice president 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), whereas stock options granted to our employees at the level of vice president and above generally become effective on the date of approval by the Compensation Committee. Any equity awards to be granted to newly hired employees below the level of vice president 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 below the level of vice president, 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 of Directors 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 of Directors (including any revision thereto approved by the Board of Directors 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.

Compensation Committee Report

This 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 above 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)
Marshall Mohr
John F. Milligan, Ph.D.
Kathy Ordoñez

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 2021.

There were not any director interlocks among members of our Board of Directors in 2021.

Executive Compensation Tables

Summary Compensation Table

The following table provides information regarding the compensation of our named executive officers for the years ended December 31, 2021 and 2020, respectively:

Summary Compensation Table for Fiscal Years 2021 and 2020

Name and principal position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$) ⁽¹⁾	Option Awards (\$) ⁽²⁾	Non-equity Incentive Plan Compensation (\$) ⁽³⁾	All Other Compensation (\$)	Total (\$)
Christian O. Henry ⁽⁴⁾	2021	650,000	—	695,550	752,502	754,650	14,229 ⁽⁵⁾	2,866,931
President, Chief Executive Officer	2020 ⁽⁶⁾	194,583	31,677	5,490,000	6,345,900	183,323	233,287	12,478,770
Susan G. Kim ⁽⁷⁾	2021	421,875	—	292,131	316,051	249,615	—	1,279,672
Chief Financial Officer	2020	108,538	95,224 ⁽⁸⁾	1,440,000	2,219,320	35,109	—	3,898,191
Mark Van Oene ⁽⁹⁾	2021	539,776	200,000 ⁽¹⁰⁾	12,294,500	14,889,375	375,782	—	28,299,433
Chief Operating Officer								
Peter Fromen ⁽¹¹⁾	2021	417,099	125,000 ⁽¹⁰⁾	5,872,000	6,352,800	241,981	329,010 ⁽¹²⁾	13,337,890
Chief Commercial Officer								
Denis Zaccarin, Ph.D.	2021	330,529	—	466,019	504,176	180,245	—	1,480,969
Senior Vice President, Product Development	2020	321,625	43,421 ⁽¹³⁾	270,600	—	75,379	—	711,025

- (1) Amounts shown represent the aggregate grant date fair value of the stock awards granted, determined in accordance with ASC 718, Compensation — Stock Compensation. For assumptions used in determining the fair value of stock awards, see the notes to our financial statements included our annual report on Form 10-K for the year ended December 31, 2021.
- (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 included our annual report on Form 10-K for the year ended December 31, 2021.
- (3) Amounts shown represent all earnings on non-equity incentive plan compensation.
- (4) Mr. Henry was appointed as Chair of the Board of Directors on March 2, 2020. He was appointed as Chief Executive Officer effective September 14, 2020, at which time he stepped down as Chair of the Board but continued to serve on the Board of Directors.
- (5) Represents imputed income in connection with non-Company personnel who accompanied Mr. Henry on certain business trips on aircraft paid for by the Company; no additional amounts were actually

paid in connection with the additional personnel who traveled on the aircraft with Mr. Henry. Mr. Henry fully reimbursed the Company for all applicable withholding taxes associated with the imputed income related to such travel.

- (6) The amount set forth in the Bonus column represents Mr. Henry's 1H2020 bonus. All other compensation for Mr. Henry represents compensation earned by him as a Director, consisting of \$90,667 of fees earned in cash and \$142,620 for the grant date fair value of stock option awards. The fees earned in cash consist of \$67,917 in annual retainer fees, \$17,500 in lead independent director fees and \$5,250 in Compensation Committee fees. On March 16, 2020, in connection with his appointment as Chair of the Board, Mr. Henry was granted stock options to purchase 35,000 shares and on August 4, 2020, Mr. Henry received an annual non-employee director grant of stock options to purchase 46,499 shares.
- (7) Ms. Kim was appointed as Chief Financial Officer effective September 28, 2020.
- (8) Represents a one-time signing bonus of \$75,000 and 1H2020 bonus of \$20,224.
- (9) Mr. Van Oene was appointed as Chief Operating Officer effective January 8, 2021.
- (10) Represents a one-time signing bonus.
- (11) Mr. Fromen was appointed as Chief Operating Officer effective January 8, 2021.
- (12) Consists of \$143,154 of payments made by the Company for living expenses, \$28,007 of payments made by the Company for UK comprehensive medical insurance, and certain tax-equalization benefits of \$157,849 under the Company's Tax Equalization Policy.
- (13) Dr. Zaccarin was appointed as an executive officer of the Company effective April 1, 2020. The amount shown in the 2020 Bonus column for Dr. Zaccarin represents his 1H2020 bonus.

Grants of Plan-Based Awards

The following table provides information regarding the plan-based awards granted to our named executive officers for the year ended December 31, 2021:

Grants of Plan-Based Awards for Fiscal Years 2021

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards (\$) ⁽¹⁾			Estimated Future Payments Under Equity Incentive Plan Awards (#)			Other Stock Awards: Number of Shares of Stock or Units (#)	Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards (\$) ⁽²⁾
		Threshold	Target	Maximum	Threshold	Target	Maximum				
Christian O. Henry	02/03/2021 ⁽³⁾	195,000	650,000	1,137,500	—	—	—	—	—	—	—
	02/16/2021	—	—	—	—	—	—	15,000 ⁽⁴⁾	—	—	695,550
	02/16/2021	—	—	—	—	—	—	—	30,000 ⁽⁴⁾	46.37	752,502
Susan G. Kim	02/03/2021 ⁽³⁾	64,500	215,000	376,250	—	—	—	—	—	—	—
	02/16/2021	—	—	—	—	—	—	6,300 ⁽⁴⁾	—	—	292,131
	02/16/2021	—	—	—	—	—	—	—	12,600 ⁽⁴⁾	46.37	316,051
Mark Van Oene	01/08/2021	—	—	—	—	—	—	335,000 ⁽⁵⁾	—	—	12,294,500
	01/08/2021	—	—	—	—	—	—	—	750,000 ⁽⁵⁾	36.70	14,889,375
	02/03/2021 ⁽³⁾	99,000	330,000	577,500	—	—	—	—	—	—	—
Peter Fromen	01/08/2021	—	—	—	—	—	—	160,000 ⁽⁵⁾	—	—	5,872,000
	01/08/2021	—	—	—	—	—	—	—	320,000 ⁽⁵⁾	36.70	6,352,800
	02/03/2021 ⁽³⁾	63,750	212,500	371,875	—	—	—	—	—	—	—
Denis Zaccarin, Ph.D.....	02/03/2021 ⁽³⁾	46,575	155,250	271,688	—	—	—	—	—	—	—
	02/16/2021	—	—	—	—	—	—	10,050 ⁽⁴⁾	—	—	466,019
	02/16/2021	—	—	—	—	—	—	—	20,100 ⁽⁴⁾	46.37	504,176

- (1) The target amounts shown in this column reflect our annual cash incentive plan awards. The maximum amounts in this column reflect the greatest payouts that could be made if pre-established maximum performance levels were met or exceeded. Actual 2021 cash incentive payouts are reflected in the non-equity incentive plan compensation column of the Summary Compensation Table.
- (2) All amounts reported represent the grant date fair value of the equity awards, calculated in accordance with FASB ASC Topic 718 without regard to estimated forfeitures. See Note 10 of the notes to our audited consolidated financial statements included in our Form 10-K for a discussion of assumptions made in determining the grant date fair value.
- (3) Corresponds to the date on which our Compensation Committee set the target cash incentive amounts payable to each of our executive officers for 2021. The payouts were based on achievement of Company goals and individual performance, as discussed in the section of our Compensation Discussion and Analysis titled “Short-term Cash Incentives”.
- (4) Represents awards granted under our 2020 Equity Incentive Plan.
- (5) Represents awards granted under our 2020 Inducement Plan.

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, 2021:

Outstanding Equity Awards at Fiscal Year-End 2021

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⁾
		Exercisable (#)	Unexercisable (#)				
Christian O. Henry	7/27/2018	35,000	—	3.66	7/27/2028		
	3/16/2020	20,416	14,584 ⁽³⁾	2.45	3/16/2030		
	8/4/2020	46,499	—	3.89	8/4/2030		
	9/15/2020	468,748	1,031,252 ⁽⁴⁾	7.32	9/15/2030		
	9/15/2020					562,500 ⁽⁵⁾	11,508,750
	2/16/2021	6,249	23,751 ⁽⁶⁾	46.37	2/16/2031		
	2/16/2021					15,000 ⁽⁵⁾	306,900
Susan G. Kim.	9/28/2020	124,999	275,001 ⁽⁴⁾	9.60	9/28/2030		
	9/28/2020					112,500 ⁽⁵⁾	2,301,750
	2/16/2021	2,624	9,976 ⁽⁶⁾	46.37	2/16/2031		
	2/16/2021					6,300 ⁽⁵⁾	128,898
Mark Van Oene	1/8/2021	750,000	—	36.70	1/8/2031		
	1/8/2021					335,000 ⁽⁵⁾	6,854,100
Peter Fromen	1/8/2021	320,000	—	36.70	1/8/2031		
	1/8/2021					160,000 ⁽⁵⁾	3,273,600
Denis Zaccarin, Ph.D.....	2/17/2015	50,000	—	6.91	2/17/2025		
	2/16/2016	60,000	—	8.90	2/16/2026		
	2/15/2017	65,000	—	5.27	2/15/2027		
	2/15/2018	43,124	1,876 ⁽⁶⁾	2.54	2/15/2028		
	2/15/2018					2,500 ⁽⁵⁾	51,150
	2/18/2020					30,000 ⁽⁵⁾	613,800
	2/18/2020					10,000 ⁽⁷⁾	204,600
	2/16/2021	4,187	15,913 ⁽⁶⁾	46.37	2/16/2031		
	2/16/2021					10,050 ⁽⁵⁾	205,623

(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 \$20.46 for the Company's common stock on December 31, 2021, and (y) the number of shares of the Company's common stock subject to the award as of such date.

(3) The option vests over three years with 1/3rd of the total number of shares vesting on the first anniversary of the date of grant and 1/36th of such shares vesting monthly thereafter until fully vested, subject to continued service with us through each applicable vesting date.

(4) The option vests over four years with 1/4th of the total number of shares vesting on the first anniversary of the date of grant and 1/48th of such shares vesting monthly thereafter until fully vested, subject to continued service with us through each applicable vesting date.

- (5) The RSUs vest over four years with 1/4th of the shares vesting on each anniversary of the award's grant date until fully vested, subject to continued service with us through each applicable vesting date.
- (6) The option vests over four years with 1/48th of the shares vesting monthly until fully vested, subject to continued service with us through each applicable vesting date.
- (7) The RSUs vest over two years with 1/2 of the shares vesting on each anniversary of the award's grant date until fully vested, subject to continued service with us through each applicable vesting date.

Option Exercises and Stock Vested During Fiscal Year 2021

The following table lists the number of shares acquired and the value realized as a result of vesting of RSUs by the named executive officers that were so designated for the year ended December 31, 2021.

For RSUs, 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. Calculated by multiplying (i) the fair market value of common stock on the exercise date, which was determined using the closing price on the Nasdaq of a share of common stock on the date of exercise, or if such day is a holiday, on the immediately preceding trading day, or the disposition price if the shares are disposed of in a disqualified disposition, minus the exercise price, by (ii) the number of shares of common stock acquired upon exercise.

Option Exercises and Stock Vested During Fiscal Year 2021

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 (\$)
Christian O. Henry	—	—	187,500	5,182,500
Susan G. Kim	—	—	37,500	932,625
Mark Van Oene	—	—	—	—
Peter Fromen	—	—	—	—
Denis Zaccarin, Ph.D.	103,000	4,337,040	22,500	835,200

Employment Agreements and Change in Control Arrangements

We entered into change in control and severance agreements with each of our named executive officers.

The change in control and severance agreements with Mr. Henry, Ms. Kim, Mr. Van Oene, Mr. Fromen and Dr. Zaccarin provide that if 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 and severance 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, in the case of resignation for “good reason” due to a material reduction in his or her base pay, the base salary as in effect immediately prior to the reduction, for a period of (1) in the case of Mr. Henry, 18 months; (2) in the case of Ms. Kim, Mr. Van Oene and Mr. Fromen 12 months; and (3) in the case of Dr. Zaccarin, six months, in each case from the date of termination of employment;
- in the case of Mr. Henry, his then-outstanding equity awards that are, as of the date of termination of employment with the Company, to vest solely based on continued service to the Company, will immediately vest as to the number of shares of common stock subject to each such equity award that otherwise would have vested had he remained an employee of the Company through the six-month anniversary of the qualifying termination; 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 18 months (for Mr. Henry), up to 12 months (for Ms. Kim, Mr. Van Oene and Mr. Fromen), or up to six months (for Dr. Zaccarin) following termination of employment.

The change in control and severance agreements with Mr. Henry, Ms. Kim, Mr. Van Oene, Mr. Fromen and Dr. Zaccarin provide that if, during a change in control (as defined in the change in control and severance agreements) period, 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 and severance 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 Mr. Henry, 18 months; (2) in the case of Ms. Kim, Mr. Van Oene and Mr. Fromen 12 months; and (3) in the case of Dr. Zaccarin, nine months, in each case from the date of termination of employment;
- in the case of Mr. Henry, Ms. Kim, Mr. Van Oene, Mr. Fromen and Dr. Zaccarin a lump sum cash payment equal to his or her annualized target cash bonus in effect for the year in which the qualifying termination occurs, provided that such amount will be prorated based on a fraction, the numerator of which is the number of days during which he or she was employed with the Company (or its successor) in the year that the qualifying termination occurs, and the denominator of which is the total number of days in such year;
- 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 18 months (for Mr. Henry), 12 months (for Ms. Kim, Mr. Van Oene and Mr. Fromen), or nine months (for Dr. Zaccarin) following termination of employment.

In order to receive the benefits under the change in control and severance 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 any confidential information and invention assignment agreement entered into with us. For each of Ms. Kim, Mr. Van Oene, Mr. Fromen, and Dr. Zaccarin, such confidential information and assignment agreement includes obligations relating to confidentiality of our proprietary information, as well as 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 and severance agreements for each of Mr. Henry, Ms. Kim, Mr. Van Oene, Mr. Fromen and Dr. Zaccarin, 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;
- “Change in control” generally means, with certain exceptions as detailed in the change in control and severance agreement, a change in our ownership that occurs upon acquisition by a person, or persons acting as a group, of our stock 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 of Directors being replaced during a 12-month period by members of our Board of Directors whose appointments or elections are not endorsed by the majority of the members of the

Board of Directors 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.

- “Change in control period” generally means (1) for each of Mr. Henry, Ms. Kim, Mr. Van Oene and Mr. Fromen the period beginning upon the occurrence of a change in control (as defined in the change in control and severance agreement) through the date 12 months following a change in control and (2) for Dr. Zaccarin, the period beginning upon the date that is three months prior to a change in control (as defined in the change in control and severance agreement) and continuing through the date that is 12 months following a change in control.
- “Disability” generally 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 30 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. Kim, Mr. Van Oene, Mr. Fromen and Dr. Zaccarin, 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 Mr. Henry, a material reduction of his duties, authority, or responsibilities, relative to his duties, authority, or responsibilities as in effect immediately prior to such reduction; (2) (i) for each of Ms. Kim, Mr. Van Oene, Mr. Fromen and Dr. Zaccarin, 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); (ii) for Mr. Henry, a material reduction by the Company in his 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; (3) for each of the named executive officers, 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 the named executive officers, the Company’s failure to obtain the assumption of the change in control and severance 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 PacBio 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.

Equity Incentive Plans

As of the end of the Company’s fiscal 2021, each of Mr. Henry, Ms. Kim, and Dr. Zaccarin held equity awards granted under the Company’s 2010 Equity Incentive Plan and 2020 Equity Incentive Plan and each of Mr. Van Oene and Mr. Fromen held equity awards granted under the Company’s 2020 Inducement Equity Incentive Plan. Such plans provide 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 such 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 and eligible for severance benefits as of December 31, 2021, (1) 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 and (2) 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 during a change in control period, based on the severance and change in control provisions described above and based on equity awards outstanding as of December 31, 2021. 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. 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

Compensation and Benefits	Involuntary Termination (\$)	Involuntary Termination On or Within 12 Months Following Change In Control (\$)
Christian O. Henry		
Salary	975,000	975,000
Performance-based cash bonus	—	650,000
Equity acceleration ⁽¹⁾	200,831	25,628,959
Health care benefits	52,759	52,759
Total	1,228,590	27,306,718
Susan G. Kim		
Salary	430,000	430,000
Performance-based cash bonus	—	215,000
Equity acceleration ⁽¹⁾	—	5,417,159
Health care benefits	—	—
Total	430,000	6,062,159
Mark Van Oene		
Salary	550,000	550,000
Performance-based cash bonus	—	330,000
Equity acceleration ⁽¹⁾	—	6,854,100
Health care benefits	31,291	31,291
Total	581,291	7,765,391
Peter Fromen		
Salary	425,000	425,000
Performance-based cash bonus	—	212,500
Equity acceleration ⁽¹⁾	—	3,273,600
Health care benefits	39,070	39,070
Total	464,070	3,950,170
Denis Zaccarin, Ph.D.		
Salary	172,500	258,750
Performance-based cash bonus	—	155,250
Equity acceleration ⁽¹⁾	—	1,108,791
Health care benefits	11,313	16,969
Total	183,813	1,539,760

(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 (1) an involuntary termination or (2) an 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, 2021, which was \$20.46 per share, over the per share exercise price of the option. (ii) Stock awards consist of RSUs. The value of stock awards was calculated as the product of (x) the number of shares subject to the stock award that become immediately vested upon (1) an involuntary termination or (2) an involuntary termination during a change in control period of the Company, and (y) the closing price of \$20.46 for a share the Company's common stock on December 31, 2021. 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.

Equity Compensation Plan Information

The following table presents information about the Company's equity compensation plans as of December 31, 2021 (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⁾	15,413,037 ⁽³⁾	4.25	14,284,782
Equity compensation plans not approved by security holders ⁽⁴⁾	4,439,618	16.73	1,640,870
Total equity compensation plans	19,852,655	7.04	15,925,652

- (1) The weighted average exercise price is calculated based solely on outstanding stock options.
- (2) Includes the following plans: the 2020 Equity Incentive Plan (the "2020 Plan"), the 2010 Equity Incentive Plan (the "2010 Plan"), the 2010 Director Plan and the 2010 Employee Stock Purchase Plan ("ESPP"). The 2020 Plan was approved by stockholders on August 4, 2020 and reserved 11,000,000 shares of the Company's common stock for issuance pursuant to equity awards granted under the 2020 Plan. The 2010 Plan, the 2010 Director Plan and the ESPP were adopted upon the effectiveness of our initial public offering in October 2010. The 2010 Plan and the 2010 Director Plan expired as to new grants on July 29, 2020. 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 the least of (i) 4,000,000 shares of Common Stock, (ii) two percent (2%) of the outstanding shares of Common Stock on such date, or (iii) an amount determined by the Administrator (as defined in the ESPP) at the beginning of each calendar year. Pursuant to this provision, an additional 4,000,000 shares became issuable. The increase is not reflected in the table above.
- (3) Includes 15,413,037 shares subject to options and RSUs that were outstanding as of December 31, 2021 that were issued under the 2020 Plan, the 2010 Plan, and the 2010 Director Plan.
- (4) Consists of the 2020 Inducement Equity Incentive Plan (the "Inducement Plan") and the Omniome Equity Incentive Plan of Pacific Biosciences of California, Inc. (the "Omniome Plan"). In connection with the merger agreement dated as of July 19, 2021, pursuant to which Omniome, Inc. became a wholly owned subsidiary of the Company, the Omniome Plan reserved 643,085 shares of the Company's common stock subject to outstanding unvested options assumed by the Company, as adjusted based on the exchange ratio and converted into unvested options to purchase shares of the Company's common stock in accordance with such merger agreement, and 1,851,043 shares of the Company's common stock available for future issuance under the Omniome Plan. On December 2, 2020, the Board of Directors adopted the Inducement Plan, which was adopted by our Board of Directors under an

exception to the Nasdaq Listing Rules' stockholder approval requirement for the issuance of securities with regard to grants to employees of the Company or its subsidiaries as an inducement material to such individuals entering into employment with the Company or its subsidiaries, and reserved 2,500,000 shares of the Company's common stock for issuance pursuant to equity awards granted under the Inducement Plan. On April 18, 2021 and November 22, 2021, the Board of Directors amended the Inducement Plan to reserve an additional 750,000 and 360,000 shares, respectively.

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) of Regulation S-K under the Securities Act of 1933.

The median employee used for 2021 is new based on a change in employee population from the acquisition of Omniome, Inc. in the third fiscal quarter of 2021. December 31, 2021 is the date as of which we identified our employee population for the purposes of identifying our median employee. We examined the 2021 total cash and equity compensation using payroll and equity plan records for January 1, 2021 through December 31, 2021 for all full-time, part-time, temporary and seasonal employees, excluding our CEO. Wages were annualized for full-time employees that were not employed by us for the entire calendar year. 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. This approach to identifying our median employee has remained consistent with prior years.

After identifying the median employee, we calculated the employee's 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.

In 2021, the annual total compensation of our median employee was approximately \$257,461, and our CEO's annual total compensation was \$2,866,931 using the amount reported in the "Total" column of our Summary Compensation Table for 2021. The resulting ratio of the total annual compensation of our CEO to our median employee was approximately 11:1.

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.

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 the applicable requirements of Public Company Accounting Oversight Board (“PCAOB”) Auditing Standard No. 1301, Communications with Audit Committees, and the Securities and Exchange Commission;
- 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; and
- discussed with Ernst & Young LLP critical audit matters included in their audit opinion.

In addition, the Audit Committee has regularly met separately with management and with Ernst & Young LLP and further to the matters specified above, had discussed with Ernst & Young LLP the overall scope, plans, and estimated costs of its audits. The Audit Committee met with Ernst & Young LLP periodically to discuss the results of their examinations, the overall quality of our financial reporting, and their reviews of the quarterly financial statements.

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, 2021 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 2023 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 2023 annual meeting of stockholders pursuant to Rule 14a-8 of the Exchange Act is December 15, 2022 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 2023 annual meeting of stockholders. Submission of a proposal before the deadline does not guarantee its inclusion in our proxy materials.

Advance Notice Procedure for 2023 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 2023 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 January 25, 2023 and no later than February 24, 2023. However, if the 2023 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 2022 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 such annual meeting of stockholders and not later than the close of business on the later of (i) the 90th day prior to such 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 2021 Annual Report and SEC Filings

Our financial statements for the fiscal year ended December 31, 2021 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
April 14, 2022

PACIFIC BIOSCIENCES OF CALIFORNIA, INC.

2020 EQUITY INCENTIVE PLAN

(As Amended Effective [], 2022)

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, as amended from time to time.

(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) Stock Subject to the Plan. 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) 29,000,000 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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