

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-3
REGISTRATION STATEMENT**

UNDER

THE SECURITIES ACT OF 1933

Pacific Biosciences of California, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

16-1590339

(I.R.S. Employer
Identification Number)

**1305 O'Brien Drive
Menlo Park, California 94025
(650) 521-8000**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Christian O. Henry
Chief Executive Officer
1305 O'Brien Drive
Menlo Park, California 94025
(650) 521-8000**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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**Brett Atkins
General Counsel and Corporate Secretary
Pacific Biosciences of California, Inc.
1305 O'Brien Drive
Menlo Park, California 94025
(650) 521-8000**

From time to time after the effective date of this registration statement.

(Approximate date of commencement of proposed sale to the public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act.

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered ⁽¹⁾	Proposed maximum offering price per security ⁽²⁾	Proposed maximum aggregate offering price ⁽²⁾	Amount of registration fee
Common Stock, par value \$0.001 per share	20,689,650	\$31.035	\$642,103,287.75	\$70,053.47

(1) Represents the maximum number of shares of common stock, par value \$0.001 per share (the “Common Stock”) issuable upon conversion of the registrant’s 1.50% Convertible Senior Notes due 2028 (the “Notes”), at a conversion rate corresponding to the initial conversion rate of 22.9885 shares of Common Stock per \$1,000 principal amount of the Notes. Pursuant to Rule 416 under the Securities Act, the registrant is also registering such indeterminate number of shares of Common Stock as may be issued from time to time upon conversion of the notes as a result of the anti-dilution provisions thereof.

(2) Estimated in accordance with Rule 457(c) solely for purposes of calculating the registration fee on the basis of the average of the high and low sale prices of the Common Stock of the registrant as reported on The Nasdaq Global Select Market on April 12, 2021.



Pacific Biosciences of California, Inc.

20,689,650 Shares

Common Stock

This prospectus relates to the potential sale or disposition from time to time by SB Northstar LP (the “SoftBank”) of some or all of the shares of our common stock, par value \$0.001 (“Common Stock”) issuable upon conversion of our 1.50% Convertible Senior Notes due 2028 (the “Notes”), if any, in any manner described under “Plan of Distribution” in this prospectus. For purposes of this prospectus, SoftBank includes its permitted transferees, pledgees, assignees, distributees, donees or successors or others who later hold any of SoftBank’s interests. The Notes were acquired from us in a private placement that closed on February 16, 2021 and is more fully described in the section entitled “Prospectus Summary – SoftBank Transaction.” We will receive no proceeds from any sale by SoftBank of the shares of Common Stock offered by this prospectus and any prospectus supplement, but in some cases we have agreed to pay certain registration expenses. Please read this prospectus and any applicable prospectus supplement carefully before you invest.

Our common stock is listed on the Nasdaq Global Select Market (“Nasdaq”) under the symbol “PACB.” Each prospectus supplement will indicate whether the securities offered thereby will be listed on any securities exchange. On April 15, 2021, the closing sale price of our common stock on Nasdaq was \$32.85 per share.

Investing in these securities involves risks. Please carefully read the information under the headings “Risk Factors” beginning on page 3 of this prospectus and “Item 1A – Risk Factors” of our most recent report on Form 10-K or 10-Q that is incorporated by reference in this prospectus before you invest in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 16, 2021.

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Neither we nor any selling securityholder or the underwriters, if any, have authorized anyone to provide you with any information or to make any representation other than those contained in or incorporated by reference into this prospectus, any prospectus supplement or in any free writing prospectus that we may file with the Securities and Exchange Commission (the “SEC”) in connection with this offering. We do not, and any selling securityholder or the underwriters, if any, do not, take any responsibility for, and can provide no assurances as to, the reliability of any information that others may provide you. We are not offering to sell any securities in any jurisdiction where such offer and sale are not permitted. The information contained in or incorporated by reference into this prospectus or any prospectus supplement, free writing prospectus or other offering material is accurate only as of the date of those documents or information, regardless of the time of delivery of the documents or information or the time of any sale of the securities. Neither the delivery of this prospectus or any applicable prospectus supplement nor any distribution of securities pursuant to such documents shall, under any circumstances, create any implication that there has been no change in the information set forth in this prospectus or any applicable prospectus supplement or in our affairs since the date of this prospectus or any applicable prospectus supplement.

ABOUT THIS PROSPECTUS

This prospectus is part of an “automatic shelf” registration statement that we filed with the SEC as a “well-known seasoned issuer” as defined in Rule 405 of the Securities Act of 1933, as amended. By using a shelf registration statement, SoftBank may offer and sell the securities described in this prospectus in one or more offerings or resales.

Information about SoftBank may change over time. Any changed information given to us by SoftBank will be set forth in a prospectus supplement if and when necessary. Further, in some cases, SoftBank will also be required to provide a prospectus supplement containing specific information about the terms on which it is offering and selling shares of Common Stock. If a prospectus supplement is provided and the description of the offering in the prospectus supplement varies from the information in this prospectus, you should rely on the information in the prospectus supplement. You should read this prospectus and any prospectus supplement for a specific offering of securities, together with additional information described in the sections entitled “Where You Can Find More Information” and “Information Incorporated by Reference” below, before making an investment decision. You should rely only on the information contained in or incorporated by reference into this prospectus, any accompanying prospectus supplement or any free writing prospectus prepared by or on behalf of us to which we have referred you. If there is any inconsistency between this prospectus and the information contained in a prospectus supplement or any free writing prospectus, you should rely on the information in the prospectus supplement or such free writing prospectus prepared by or on behalf of us to which we have referred you. This prospectus (as supplemented and amended) does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or an offer to sell or the solicitation of an offer to buy any such securities in any circumstances in which such offer or solicitation is unlawful. This document may only be used where it is legal to sell these securities. You should not assume that the information contained in this prospectus (as supplemented and amended) is accurate as of any dates other than their respective dates.

We urge you to read carefully this prospectus (as supplemented and amended) before deciding whether to purchase any of our securities being offered.

Unless we state otherwise or the context otherwise requires, references to “Pacific Biosciences,” “PacBio,” the “Company,” “us,” “we” or “our” in this prospectus mean Pacific Biosciences of California, Inc. and its consolidated subsidiaries. When we refer to “you” in this section, we mean all purchasers of the securities being offered by this prospectus and any accompanying prospectus supplement, whether they are the holders or only indirect owners of those securities.

PROSPECTUS SUMMARY

This summary highlights selected information that is presented in greater detail elsewhere, or incorporated by reference, in this prospectus. It does not contain all of the information that may be important to you and your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including the matters set forth under the section of this prospectus captioned “Risk Factors” and the financial statements and related notes and other information that we incorporate by reference herein, including our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. Unless the context indicates otherwise, references in this prospectus to “Pacific Biosciences,” “PacBio,” “we,” “our” and “us” refer, collectively, to Pacific Biosciences of California, Inc., a Delaware corporation, and its subsidiaries taken as a whole.

Company Overview

We design, develop and manufacture sequencing systems to help scientists resolve genetically complex problems. Based on our novel Single Molecule, Real-Time (SMRT®) sequencing technology, our products enable: de novo genome assembly to finish genomes in order to more fully identify, annotate and decipher genomic structures; full-length transcript analysis to improve annotations in reference genomes, characterize alternatively spliced isoforms in important gene families, and find novel genes; targeted sequencing to more comprehensively characterize genetic variations; and real-time kinetic information for epigenome characterization. Our technology provides high accuracy, ultra-long reads, uniform coverage and the ability to simultaneously detect epigenetic changes. PacBio® sequencing systems, including consumables and software, provide a simple and fast end-to-end workflow for SMRT sequencing.

Corporate Information

Pacific Biosciences of California, Inc., formerly Nanofluidics, Inc. was incorporated in the State of Delaware in 2000. Our executive offices are located at 1305 O’Brien Drive, Menlo Park, California 94025, and our telephone number is (650) 521-8000. We maintain a website at www.pacb.com where general information about us is available. Our website, and the information contained therein, is not a part of this prospectus.

SoftBank Transaction

On February 9, 2021, we entered into an investment agreement (the “Investment Agreement”) with SoftBank relating to the issuance and sale to SoftBank of \$900,000,000 in aggregate principal amount of our 1.50% Convertible Senior Notes due 2028. The transactions contemplated by the Investment Agreement closed on February 16, 2021. In connection with the issuance of the Notes, on February 16, 2021, we entered into an indenture (the “Indenture”) with U.S. Bank National Association, as trustee. The Notes are convertible at the option of the holder at any time until the scheduled trading day prior to the maturity date, including in connection with a redemption by us. The Notes are convertible into shares of our common stock based on an initial conversion rate of 22.9885 shares of common stock per \$1,000 principal amount of the Notes (which is equal to an initial conversion price of \$43.50 per share), in each case subject to customary anti-dilution and other adjustments as a result of certain extraordinary transactions.

We sold the Notes in a transaction exempt from the registration requirements of the Securities Act, and expect to rely on an exemption for any issuance of the shares of common stock issuable upon conversion of the Notes.

THE OFFERING

Common stock offered by the selling securityholders

SoftBank may offer and sell some or all of the 20,689,650 shares of our Common Stock that may be issued upon conversion of the Notes in any manner described under “Plan of Distribution” in this prospectus. Throughout this prospectus, when we refer to the shares of our common stock being registered on behalf of SoftBank, we are referring to the shares of Common Stock that may be issued upon conversion of the Notes.

Use of proceeds

SoftBank will receive all of the proceeds from the sale under this prospectus of the notes and the shares of Common Stock issuable upon conversion of the Notes, if any. We will not receive any proceeds from these sales.

Listing

Our Common Stock is listed on the Nasdaq Global Select Market under the symbol “PACB.”

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the section in the applicable prospectus supplement captioned “Risk Factors,” together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under “Part I—Item 1A—Risk Factors” of our most recent Annual Report on Form 10-K and in “Part II—Item 1A—Risk Factors” in our most recent Quarterly Report on Form 10-Q filed subsequent to such Form 10-K that are incorporated herein by reference, as may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

FORWARD-LOOKING STATEMENTS

This prospectus, each prospectus supplement and the information incorporated by reference in this prospectus and each prospectus supplement contain certain statements that constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “could,” “would,” “project,” “plan,” “potentially,” “likely,” and similar expressions and variations thereof are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements. Those statements appear in this prospectus, any accompanying prospectus supplement and the documents incorporated herein and therein by reference, particularly in the sections captioned “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and include statements regarding the intent, belief or current expectations of our management that are subject to known and unknown risks, uncertainties and assumptions. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and that actual results may differ materially from those projected in the forward-looking statements as a result of various factors.

Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements contained herein after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

This prospectus and the documents incorporated by reference in this prospectus may contain market data that we obtain from industry sources. These sources do not guarantee the accuracy or completeness of the information. Although we believe that our industry sources are reliable, we do not independently verify the information. The market data may include projections that are based on a number of other projections. While we believe these assumptions to be reasonable and sound as of the date of this prospectus, actual results may differ from the projections.

USE OF PROCEEDS

SoftBank will receive all of the proceeds from the sale of the shares of common stock issuable upon conversion of the notes, if any. We will not receive any proceeds from these sales.

DESCRIPTION OF CAPITAL STOCK

The description of our capital stock is incorporated by reference to Exhibit 4.2 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, filed with the SEC on February 26, 2021.

SELLING SECURITYHOLDERS

On February 16, 2021, we issued \$900,000,000 aggregate principal amount of the Notes to SoftBank, pursuant to the Investment Agreement. The Notes were initially convertible into an aggregate of 20,689,650 shares of Common Stock and were issued in transactions exempt from the registration requirements of the Securities Act. With certain exceptions, SoftBank is subject to certain transfer restrictions pursuant to the Investment Agreement that contractually prohibit the transfer or any sale of the shares of Common Stock issuable upon conversion of the Notes by SoftBank to a non-affiliated third-party until the earliest of (i) March 12, 2022 and (ii) a Change in Control (as defined in the Investment Agreement) of us.

For purposes of this prospectus, SoftBank includes its permitted transferees, pledgees, assignees, distributees, donees or successors or others who later hold any of SoftBank interests. Our registration of the shares of Common Stock issuable upon conversion of the Notes does not necessarily mean that SoftBank will sell all or any of such shares of Common Stock. The following table sets forth certain information as of March 31, 2021 concerning the shares of Common Stock that may be offered from time to time by SoftBank with this prospectus. The information is based on information provided by or on behalf of SoftBank. In the table below, the number of shares of Common Stock that may be offered pursuant to this prospectus is calculated based on the conversion rate, as of the date of this prospectus, of 22.9885 shares of Common Stock per \$1,000 aggregate principal amount of notes. The number of shares of Common Stock issuable upon conversion of the Notes is subject to adjustment under certain circumstances described in the Indenture governing the Notes. Accordingly, the number of shares of Common Stock issuable upon conversion of the Notes and the number of shares of Common Stock beneficially owned and offered by SoftBank pursuant to this prospectus may increase or decrease from that set forth in the table below. Information about SoftBank may change over time. Any changed or new information given to us by SoftBank will be set forth in supplements to this prospectus or amendments to the registration statement of which this prospectus is a part, if and when necessary.

Name	Number of Shares of Common Stock Beneficially Owned and Offered Hereby ⁽¹⁾⁽²⁾	Percentage of Shares of Common Stock Beneficially Owned and Offered Hereby ⁽³⁾	Shares Beneficially Owned After the Offering ⁽⁴⁾	Percentage of Shares of Common Stock Beneficially Owned After the Offering
SB Northstar LP	30,550,739	13.9%	9,861,089	4.5%

- (1) Assumes for each \$1,000 in principal amount of the Notes a conversion rate, as of the date of this prospectus, of 22.9885 shares of Common Stock upon conversion and full physical settlement. This conversion rate is subject to adjustment, however, as described in this prospectus under “Description of Notes—Conversion Rights—Adjustment to Conversion Rate.” As a result, the number of shares of Common Stock issuable upon conversion of the Notes may increase or decrease in the future.
- (2) Consists of 20,689,650 shares issuable upon conversion of the Notes and 9,861,089 shares as of March 31, 2021, in each case beneficially owned by SB Northstar LP, which is an indirect subsidiary of SoftBank Group Corporation. 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 1-9-1, Higashi-Shimbashi Minato-ku, Tokyo 105-7303 Japan.
- (3) The percentage reflects the 198,339,724 shares of Common Stock outstanding as of March 31, 2021 and gives effect to the total number of shares of Common Stock beneficially owned and offered hereby by SoftBank, assuming full physical settlement.
- (4) The table assumes that SoftBank sells all of its shares offered pursuant to this prospectus. We are unable to determine the number of shares that will actually be sold pursuant to this prospectus.

Except for the transactions referred to herein and in documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (including the investment agreement and documents related to director positions with the Company), SoftBank does not have, and within the last three years has not had, any position, office or other material relationship (legal or otherwise) with us or any of our subsidiaries other than as a holder of our securities.

PLAN OF DISTRIBUTION

SoftBank, including its pledgees, donees, transferees, distributees, beneficiaries or other successors in interest, may from time to time offer some or all of the shares of Common Stock (collectively, "Securities") covered by this prospectus. To the extent required, this prospectus may be amended and supplemented from time to time to describe a specific plan of distribution.

SoftBank will not pay any of the costs, expenses and fees incurred in connection with the registration and sale of the Securities covered by this prospectus, but it will pay any and all underwriting discounts, selling commissions and stock transfer taxes, if any, attributable to sales of the Securities. We will not receive any proceeds from the sale of the shares of Common Stock covered hereby.

SoftBank may sell the Securities covered by this prospectus, as it may be amended and supplemented, from time to time, and may also decide not to sell all or any of the Securities that it is allowed to sell under this prospectus. SoftBank will act independently of us in making decisions regarding the timing, manner and size of each sale. These dispositions may be at fixed prices, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, at varying prices determined at the time of sale, or at privately negotiated prices. Sales may be made by SoftBank in one or more types of transactions, which may include:

- purchases by underwriters, dealers and agents who may receive compensation in the form of underwriting discounts, concessions or commissions from SoftBank and/or the purchasers of the Securities for whom they may act as agent;
- one or more block transactions, including transactions in which the broker or dealer so engaged will attempt to sell the Securities as agent but may position and resell a portion of the block as principal to facilitate the transaction, or in crosses, in which the same broker acts as an agent on both sides of the trade;
- ordinary brokerage transactions or transactions in which a broker solicits purchases;
- purchases by a broker-dealer or market maker, as principal, and resale by the broker-dealer for its account;
- the pledge of Securities for any loan or obligation, including pledges to brokers or dealers who may from time to time effect distributions of shares of our Common Stock and, in the case of any collateral call or default on such loan or obligation, pledges or sales of shares of our Common Stock by such pledgees or secured parties;
- short sales or transactions to cover short sales relating to the Securities;
- one or more exchanges or over the counter market transactions;
- through distribution by SoftBank or its successor in interest to its members, general or limited partners or shareholders (or their respective members, general or limited partners or shareholders);
- privately negotiated transactions;
- the writing of options, whether the options are listed on an options exchange or otherwise;
- distributions to creditors and equity holders of SoftBank; and
- any combination of the foregoing, or any other available means allowable under applicable law.

SoftBank may also resell all or a portion of its Securities in open market transactions in reliance upon Rule 144 under the Securities Act provided it meets the criteria and conforms to the requirements of Rule 144 and all applicable laws and regulations.

SoftBank may enter into sale, forward sale and derivative transactions with third parties, or may sell securities not covered by this prospectus, including the notes, to third parties in privately negotiated transactions.

In connection with those sale, forward sale or derivative transactions, the third parties (or underwriters on their behalf) may sell shares of our Common Stock, including in short sale transactions and by issuing securities that are not covered by this prospectus but are exchangeable for or represent beneficial interests in our Common Stock. The third parties also may use shares received under those sale, forward sale or derivative arrangements or shares pledged by SoftBank or borrowed from

SoftBank or others to settle such third-party sales or to close out any related open borrowings of our Common Stock. The third parties or underwriters selling shares of our Common Stock on their behalf may deliver this prospectus in connection with any such transactions. Any third party in such sale transactions will be an underwriter and will be identified in a supplement or a post-effective amendment to the registration statement of which this prospectus is a part as may be required.

In addition, SoftBank may engage in hedging transactions with broker-dealers in connection with distributions of Securities or otherwise. In those transactions, broker-dealers may engage in short sales of securities in the course of hedging the positions they assume with SoftBank. SoftBank may also sell securities short and redeliver securities to close out such short positions. SoftBank may also enter into option or other transactions with broker-dealers which require the delivery of securities to the broker-dealer. The broker-dealer may then resell or otherwise transfer such securities pursuant to this prospectus. SoftBank also may loan or pledge shares, and the borrower or pledgee may sell or otherwise transfer the Securities so loaned or pledged pursuant to this prospectus. Such borrower or pledgee also may transfer those Securities to investors in our securities or SoftBank's securities or in connection with the offering of other securities not covered by this prospectus.

To the extent necessary, the specific terms of the offering of the Securities, including the specific Securities to be sold, the name of SoftBank, the respective purchase prices and public offering prices, the names of any underwriter, broker-dealer or agent, if any, and any applicable compensation in the form of discounts, concessions or commissions paid to underwriters or agents or paid or allowed to dealers will be set forth in a supplement to this prospectus or a post-effective amendment to this registration statement of which this prospectus forms a part. SoftBank may, or may authorize underwriters, dealers and agents to, solicit offers from specified institutions to purchase Securities from SoftBank at the public offering price listed in the applicable prospectus supplement. These sales may be made under "delayed delivery contracts" or other purchase contracts that provide for payment and delivery on a specified future date. If necessary, any such contracts will be described in, and be subject to the conditions set forth in, a supplement to this prospectus or a post-effective amendment to this registration statement of which this prospectus forms a part.

Broker-dealers or agents may receive compensation in the form of commissions, discounts or concessions from SoftBank. Broker-dealers or agents may also receive compensation from the purchasers of Securities for whom they act as agents or to whom they sell as principals, or both. Compensation to a particular broker-dealer might be in excess of customary commissions and will be in amounts to be negotiated in connection with transactions involving securities. In effecting sales, broker-dealers engaged by SoftBank may arrange for other broker-dealers to participate in the resales.

In connection with sales of Securities covered hereby, SoftBank and any underwriter, broker-dealer or agent and any other participating broker-dealer that executes sales for SoftBank may be deemed to be an "underwriter" within the meaning of the Securities Act. Accordingly, any profits realized by SoftBank and any compensation earned by such underwriter, broker-dealer or agent may be deemed to be underwriting discounts and commissions. Selling securityholders who are an "underwriters" under the Securities Act must deliver this prospectus in the manner required by the Securities Act. This prospectus delivery requirement may be satisfied through the facilities of the Nasdaq Stock Market in accordance with Rule 153 under the Securities Act or satisfied in accordance with Rule 174 under the Securities Act.

We and SoftBank have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act. In addition, we or SoftBank may agree to indemnify any underwriters, broker-dealers and agents against or contribute to any payments the underwriters, broker-dealers or agents may be required to make with respect to, civil liabilities, including liabilities under the Securities Act. Underwriters, broker-dealers and agents and their affiliates are permitted to be customers of, engage in transactions with, or perform services for us and our affiliates or SoftBank or their affiliates in the ordinary course of business.

SoftBank will be subject to the applicable provisions of Regulation M of the Exchange Act and the rules and regulations thereunder, which provisions may limit the timing of purchases and sales of any of the Securities by SoftBank. Regulation M may also restrict the ability of any person engaged in the distribution of the Securities to engage in market-making activities with respect to the Securities. These restrictions may affect the marketability of such Securities.

In order to comply with applicable securities laws of some states or countries, the Securities may only be sold in those jurisdictions through registered or licensed brokers or dealers and in compliance with applicable laws and regulations. In addition, in certain states or countries the Securities may not be sold unless they have been registered or qualified for sale in the applicable state or country or an exemption from the registration or qualification requirements is available. In addition, any Securities of a selling securityholder covered by this prospectus that qualify for sale pursuant to Rule 144 under the Securities Act may be sold in open market transactions under Rule 144 rather than pursuant to this prospectus.

In connection with an offering of Securities under this prospectus, the underwriters may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase

in an offering. Stabilizing transactions consist of certain bids or purchases made for the purpose of preventing or retarding a decline in the market price of the securities while an offering is in progress.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the underwriters have repurchased securities sold by or for the account of that underwriter in stabilizing or short-covering transactions.

These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the Securities offered under this prospectus. As a result, the price of the Securities may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. These transactions may be effected on the Nasdaq Stock Market or another securities exchange or automated quotation system, or in the over-the-counter market or otherwise.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Additional legal matters may be passed on for us, or any underwriters, dealers or agents by counsel we will name in the applicable prospectus supplement.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2020 have been so incorporated in reliance on the report of Ernst & Young LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at <https://www.pacb.com/>. Information accessible on or through our website is not a part of this prospectus.

This prospectus and any prospectus supplement is part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. You should review the information and exhibits in the registration statement for further information on us and our consolidated subsidiaries and the securities that we are offering. Forms of any documents establishing the terms of the offered securities are filed as exhibits to the registration statement of which this prospectus forms a part or under cover of a Current Report on Form 8-K and incorporated in this prospectus by reference. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should read the actual documents for a more complete description of the relevant matters.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information that we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated by reference in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents furnished pursuant to Items 2.02 or 7.01 of any Current Report on Form 8-K and, except as may be noted in any such Form 8-K, exhibits filed on such form that are related to such information), until the offering of the securities under the registration statement of which this prospectus forms a part is terminated or completed:

- our Annual Report on Form 10-K for the year ended December 31, 2020;
- the portions of our Definitive Proxy Statement on Schedule 14A (other than information furnished rather than filed) that are incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on April 28, 2020;
- our Current Reports on Form 8-K filed on January 8, 2021 (other than information furnished rather than filed), January 13, 2021 (other than information furnished rather than filed), February 9, 2021, February 10, 2021 (other than information furnished rather than filed) and February 17, 2021; and
- The description of our common stock contained in the Registration Statement on Form 8-A relating thereto, filed on October 6, 2010, including any amendment or report filed for the purpose of updating such description.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

Pacific Biosciences of California, Inc.
1305 O'Brien Drive
Menlo Park, California 94025
Attn: Investor Relations
(650) 521-8000



PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth estimated expenses in connection with the issuance and distribution of the securities being registered:

	Amount to be Paid	
SEC registration fee	\$	70,053
Accounting fees and expenses		7,500
Legal fees and expenses		15,000
Miscellaneous expenses		1,000
Total	\$	93,553

* Estimate.

Item 15. Indemnification of Directors and Officers

Section 145 of the General Corporation Law of the State of Delaware empowers a corporation to indemnify its directors and officers and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers, provided that the person acted in good faith and in a manner the person reasonably believed to be in our best interests, and, with respect to any criminal action, had no reasonable cause to believe the person's actions were unlawful. The General Corporation Law of the State of Delaware further provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. Our certificate of incorporation provides for the indemnification of our directors and officers to the fullest extent permitted under the General Corporation Law of the State of Delaware. In addition, our bylaws require us to fully indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by reason of the fact that such person is or was our director or officer, or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, to the fullest extent permitted by applicable law.

Section 102(b)(7) of the General Corporation Law of the State of Delaware permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except (1) for any breach of the director's duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for payments of unlawful dividends or unlawful stock repurchases or redemptions or (4) for any transaction from which the director derived an improper personal benefit. Our certificate of incorporation provides that our directors shall not be personally liable to the registrant or its stockholders for monetary damages for breach of fiduciary duty as a director and that if the General Corporation Law of the State of Delaware is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of our directors shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

Section 174 of the General Corporation Law of the State of Delaware provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption may be held liable for such actions. A director who was either absent when the unlawful actions were approved, or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts

Our policy is to enter into separate indemnification agreements with each of our directors and officers that provide the maximum indemnity allowed to directors and executive officers by Section 145 of the General Corporation Law of the State of Delaware and also to provide for certain additional procedural protections. We also maintain directors and officers insurance to insure such persons against certain liabilities.

These indemnification provisions and the indemnification agreements entered into between us and our officers and directors may be sufficiently broad to permit indemnification of our officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

Item 16. Exhibits

Exhibit No.	Exhibit Description	Incorporation by Reference		
		Form	Exhibit No.	Date
1.1*	Form of Underwriting Agreement	--	--	--
3.1	Amended and Restated Certificate of Incorporation	10-K	3.1	March 23, 2011
3.2	Second Amended and Restated Bylaws	8-K	3.1	November 5, 2018
4.1	Indenture, dated February 16, 2021, between Pacific Biosciences of California, Inc. and U.S. Bank National Association, as Trustee	8-K	4.1	February 17, 2021
5.1	Opinion of Wilson Sonsini Goodrich & Rosati Professional Corporation			Filed herewith
10.1	Investment Agreement, dated as of February 9, 2021, between Pacific Biosciences of California, Inc. and SB Northstar LP	8-K	10.1	February 10, 2021
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm			Filed herewith
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in the opinion filed as Exhibit 5.1 to this Registration Statement)			Filed herewith
24.1	Power of Attorney (included on the signature page to this Registration Statement)			Filed herewith

* To be filed by amendment or as an exhibit to a document to be incorporated by reference herein in connection with an offering of securities.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission, or the Commission, pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the

maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) that, for the purpose of determining liability under the Securities Act to any purchaser:

(i) each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) that, for the purpose of determining liability of a registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of such undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Menlo Park, State of California, on April 16, 2021.

PACIFIC BIOSCIENCES OF CALIFORNIA, INC.

By: /s/ Eric E.
Schaefer
Eric E. Schaefer
Vice President and Chief Accounting Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Christian O. Henry, Susan G. Kim, Brett Atkins and Eric E. Schaefer, and each of them, as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this registration statement, including post-effective amendments, and registration statements filed pursuant to Rule 462 under the Securities Act, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith and about the premises, as fully for all intents and purposes as they, he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or any of them, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Christian O. Henry</u> Christian O. Henry	Director, Chief Executive Officer and President (Principal Executive Officer)	April 16, 2021
<u>/s/ Susan G. Kim</u> Susan G. Kim	Chief Financial Officer (Principal Financial Officer)	April 16, 2021
<u>/s/ Eric E. Schaefer</u> Eric E. Schaefer	Vice President and Chief Accounting Officer (Principal Accounting Officer)	April 16, 2021
<u>/s/ John F. Milligan John F. Milligan</u>	Chairman of the Board of Directors	April 16, 2021
<u>/s/ David Botstein</u> David Botstein	Director	April 16, 2021
<u>/s/ William W. Ericson</u> William W. Ericson	Director	April 16, 2021

Hunkapiller Michael Hunkapiller	/s/ Michael	Director	April 16, 2021
Livingston Randall S. Livingston	/s/ Randall S.	Director	April 16, 2021
Mohr Marshall L. Mohr	/s/ Marshall L.	Director	April 16, 2021
Ordoñez Kathy Ordoñez	/s/ Kathy	Director	April 16, 2021
Shapiro Lucy Shapiro	/s/ Lucy	Director	April 16, 2021

Wilson Sonsini Goodrich & Rosati
Professional Corporation
650 Page Mill Road
Palo Alto, California 94304-1050
o: 650.493.9300
f: 650.493.6811

April 16, 2021

Pacific Biosciences of California, Inc.
1305 O'Brien Drive
Menlo Park, California 94025

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

This opinion is furnished to you in connection with the Registration Statement on Form S-3 (the "**Registration Statement**"), to be filed on or about April 16, 2021 by Pacific Biosciences of California, Inc. (the "**Company**") with the Securities and Exchange Commission in connection with the registration for resale under the Securities Act of 1933, as amended (the "**Securities Act**"), of up to 20,689,650 shares of the Company's common stock, \$0.001 par value per share (the "**Shares**") issuable upon conversion of the Company's 1.5% Convertible Senior Notes due 2028 (the "**Notes**") in accordance with the Indenture, dated as of February 16, 2021 between the Company and U.S. Bank National Association, as trustee ("the **Indenture**").

We are acting as counsel for the Company in connection with the registration for resale under the Securities Act of the Shares. In such capacity, we have examined originals or copies, certified or otherwise identified to our satisfaction, of such documents, corporate records, certificates of public officials and other instruments as we have deemed necessary for the purposes of rendering this opinion. In our examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity with the originals of all documents submitted to us as copies, the authenticity of the originals of such documents and the legal competence of all signatories to such documents.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware (including the statutory provisions and all applicable judicial decisions interpreting those laws) and the federal laws of the United States of America.

We express no opinion as to (i) the effect of any bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium or other similar laws relating to or affecting the rights of creditors generally, (ii) rights to indemnification and contribution which may be limited by applicable law or equitable principles, or (iii) the effect of general principles of equity, including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing, the effect of judicial discretion and the possible unavailability of specific performance, injunctive relief or other equitable relief, and the limitations on rights of acceleration, whether considered in a proceeding in equity or at law.

On the basis of the foregoing, we are of the opinion that when the conversion right has been duly exercised in accordance with the terms of the Notes and the Indenture, and the Shares have been issued and delivered upon such exercise in accordance with the terms of the Notes and the Indenture, the Shares will be validly issued, fully paid and nonassessable.

AUSTIN BEIJING BOSTON BRUSSELS HONG KONG LONDON LOS ANGELES NEW YORK PALO ALTO
SAN DIEGO SAN FRANCISCO SEATTLE SHANGHAI WASHINGTON, DC WILMINGTON, DE

We consent to the use of this opinion as an exhibit to the Registration Statement, and we consent to the reference of our name under the caption “Legal Matters” in the prospectus forming part of the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission thereunder.

Sincerely,

/s/ Wilson Sonsini Goodrich & Rosati

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-3) and related Prospectus of Pacific Biosciences of California, Inc. for the registration of 20,689,650 shares of its common stock and to the incorporation by reference therein of our report dated February 26, 2021, with respect to the consolidated financial statements of Pacific Biosciences of California, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2020, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Redwood City, California

April 16, 2021
