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)

1380 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)

Michael Hunkapiller Chief Executive Officer Pacific Biosciences of California, Inc. 1380 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:

Donna M. Petkanics Andrew D. Hoffman Wilson Sonsini Goodrich & Rosati, P.C. 650 Page Mill Road Palo Alto, CA 94304 Telephone: (650) 493-9300

Facsimile: (650) 493-6811

Approximate date of commencement of proposed sale to the public: From time to time, after the effective date of this Registration Statement.

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. \boxtimes (File No. 333-199891)

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. \Box

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. \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. \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," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated filer \Box		Accelerated filer		X			
Non-	Non-accelerated filer \Box (Do not check if smaller reporting company)		Smaller repor	ting company			
			Emerging gro	wth company			
		npany, indicate by check mark if the registrant has elected not to use the extended transit ng standards provided pursuant to Section 7(a)(2)(B) of Securities Act.	tion period for comply	ing with any new	or		
		CALCULATION OF REGISTRATION FEE					
	G. 1 do 204	Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price (1)(2)	Amount of Registration Fee	2 (3)		
	mon Stock, \$0.001 pa	*	\$7,202,000	\$834.72			
(1)(2)(3)	on the registration s Estimated solely for on the proposed man The registrant previous	Represents the additional number of shares of common stock being registered. Does not include the securities that the registrant previously registered on the registration statement on Form S-3 (File No. 333-199891). Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended, based on the proposed maximum aggregate offering price. The registrant previously registered securities at an aggregate offering price not to exceed \$150,000,000 on a Registration Statement on Form S-3 (File No. 333-199891), which was declared effective by the Securities and Exchange Commission on November 21, 2014. In accordance with Rule 462(b)					
1933	under the Securities hereby registered, w	Act of 1933, as amended, an additional amount of securities having a proposed maximu hich includes shares issuable upon the exercise of the underwriter's option to purchase a satement shall become effective upon filing with the Commission in accordance with	m aggregate offering padditional shares.	orice of \$7,202,00			

EXPLANATORY NOTE AND INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

Pursuant to Rule 462(b) under the Securities Act of 1933, as amended, Pacific Biosciences of California, Inc. (the "Registrant") is filing this Registration Statement with the Securities and Exchange Commission (the "Commission"). This Registration Statement relates to the public offering of common stock of the Registrant contemplated by the registration statement on Form S-3, as amended (File No. 333-199891), originally filed by the Registrant on November 5, 2014 (the "Prior Registration Statement"), and which the Commission declared effective on November 21, 2014.

The Registrant is filing this Registration Statement for the sole purpose of increasing the maximum aggregate offering price of shares of common stock offered by the Registrant by \$7,202,000, which includes shares issuable upon the exercise of the underwriter's option to purchase additional shares of the Registrant's common stock. The additional securities that are being registered for issuance and sale are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in the Calculation of Registration Fee table contained in the Prior Registration Statement. The information set forth in the Prior Registration Statement and all exhibits thereto are hereby incorporated by reference in this filing.

The required opinions and consents are listed on the exhibit index and filed with this filing.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant 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 June 15, 2017.

PACIFIC BIOSCIENCES OF CALIFORNIA, INC.

By: /s/ Susan K. Barnes

Susan K. Barnes Executive Vice President, Chief Financial Officer and Principal Accounting Officer

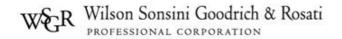
Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ Michael Hunkapiller	Chairman, Chief Executive Officer and President	June 15, 2017
Michael Hunkapiller		
/s/ Susan K. Barnes	Executive Vice President, Chief Financial Officer and Principal	June 15, 2017
Susan K. Barnes	Accounting Officer	
*	Director	June 15, 2017
David Botstein	_	
*	Director	June 15, 2017
William W. Ericson	-	
*	Director	June 15, 2017
Randall S. Livingston	-	
*	Director	June 15, 2017
John F. Milligan	-	
*	Director	June 15, 2017
Marshall L. Mohr	-	
*	Director	June 15, 2017
Kathy Ordoñez	_	
*	Director	June 15, 2017
Lucy Shapiro	-	
*By: /s/ Susan K. Barnes		
Attorney-in-Fact		

EXHIBIT INDEX

5.1*	Opinion of Wilson Sonsini Goodrich & Rosati, Professiona	l Corporation.
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- 23.1* Consent of Independent Registered Public Accounting Firm.
- 23.2* Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
- 24.1+ Power of Attorney.
- 24.2* Power of Attorney for Kathy Ordoñez.
- * Filed herewith.
- $+ \ \ \, \text{Incorporated by reference from the Prior Registration Statement.}$



650 Page Mill Road Palo Alto, CA 94304-1050 PHONE 650.493.9300 FAX 650.493.6811 www.wsgr.com

June 15, 2017

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

Re: Registration Statement on Form S-3 (File No. 333-199891) and Registration Statement filed pursuant to Rule 462(b) of the Securities Act of 1933, as amended

Ladies and Gentlemen:

This opinion is furnished to you in connection with the Registration Statement on Form S-3 (the "Registration Statement"), filed by Pacific Biosciences of California, Inc. (the "Company") with the Securities and Exchange Commission pursuant to Rule 462(b) of the Securities Act of 1933, as amended (the "Securities Act") in connection with the registration under the Securities Act of shares of the Company's common stock, par value \$0.001 per share, having a maximum aggregate offering price of \$7,202,000 (including shares issuable upon exercise of the underwriters' option to purchase additional shares) (the "Shares"), to be issued and sold by the Company. The Registration Statement incorporates by reference the registration statement on Form S-3 (No. 333-199891) (the "Prior Registration Statement"), which was declared effective on November 21, 2014, including the prospectus which forms part of the Registration Statement. We understand that the Shares are to be sold to the underwriter for resale to the public as described in the Registration Statement and the Prior Registration Statement and pursuant to that certain underwriting agreement to be entered into by and between the Company and Cantor Fitzgerald & Co., as representative of the several underwriters named in Schedule I thereto (the "Underwriting Agreement").

We are acting as counsel for the Company in connection with the sale of the Shares by the Company. 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.

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

Wilson Sonsini Goodrich & Rosati

PROFESSIONAL CORPORATION

Pacific Biosciences of California, Inc. June 15, 2017 Page 2 of 2

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 the Shares to be issued and sold by the Company have been duly authorized and, when such Shares are issued and paid for in accordance with the terms of the Underwriting Agreement, will be validly issued, fully paid and nonassessable.

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.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati, P.C.

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 this Registration Statement (Form S-3, No. 333-199891) and related Prospectus of Pacific Biosciences of California, Inc., for the registration of common stock and to the incorporation by reference therein of our reports dated March 6, 2017, with respect to the consolidated financial statements of Pacific Biosciences of California, Inc., and the effectiveness of internal control over financial reporting of Pacific Biosciences of California, Inc., included in its Annual Report (Form 10-K) for the year ended December 31, 2016, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Redwood City, California June 13, 2017

Power of Attorney

KATHY ORDOÑEZ hereby appoints Michael Hunkapiller and Susan K. Barnes, and each of them individually, as her true and lawful attorneys-in-fact and agents with full power of substitution and resubstitution, for her and in her name, place and stead, in any and all capacities, including in particular, as a Director of Pacific Biosciences of California, Inc. (the "Company") to sign any or all amendments to that certain registration statement filed with the Securities and Exchange Commission (the "SEC") by the Company on November 5, 2014 and declared effective by the SEC on November 21, 2014 (File No. 333-199891), including post-effective amendments and registration statements filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and otherwise, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC granting unto said attorneys-in-fact and agents the full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the foregoing, as full to all intents and purposes as she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or her substitute, may lawfully do or cause to be done by virtue thereof.

Date: June 12, 2017

By: /s/ Kathy Ordoñez

Name: Kathy Ordoñez

Title: Director, Pacific Biosciences of California, Inc.