

April 25, 2013

Via EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-3720
Attention: Amanda Ravitz
Tim Buchmiller
Brian Soares

**Re: Pacific Biosciences of California, Inc.
Registration Statement on Form S-3
Originally filed March 19, 2013, as amended on April 19, 2013
File No. 333-187363**

Acceleration Request

**Requested Date: April 29, 2013
Requested Time: 4:30 PM Eastern Time**

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, Pacific Biosciences of California, Inc. (the "**Company**") hereby requests that the above-referenced Registration Statement on Form S-3 (File No. 333-187363) (the "**Registration Statement**") be declared effective at the "Requested Date" and "Requested Time" set forth above or as soon thereafter as practicable, or at such later time as the Company may request by telephone to the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**"). The Company hereby authorizes Donna M. Petkanics of Wilson Sonsini Goodrich & Rosati, Professional Corporation, counsel for the Company, to make such request on the Company's behalf.

In connection with the acceleration request, the Company hereby acknowledges that:

- should the Commission or the Staff, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;
- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and
- the Company may not assert Staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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We request that we be notified of the effectiveness of the Registration Statement by telephone to Donna M. Petkanics of Wilson Sonsini Goodrich & Rosati, Professional Corporation, at (650) 320-4606. Please also provide a copy of the Commission's order declaring the Registration Statement effective to Donna M. Petkanics via facsimile at (650) 493-6811.

Please direct any questions or comments regarding this acceleration request to Donna M. Petkanics at (650) 320-4606.

Sincerely,

PACIFIC BIOSCIENCES OF CALIFORNIA, INC.

By: /s/ Brian B. Dow

Brian B. Dow

Vice President and Principal Accounting Officer

cc: Donna M. Petkanics, Esq.
Wilson Sonsini Goodrich & Rosati, Professional Corporation