

**SECURITIES AND EXCHANGE COMMISSION**  
WASHINGTON, D.C. 20549

**SCHEDULE 14A INFORMATION**

**Proxy Statement Pursuant to Section 14(a) of the  
Securities Exchange Act of 1934**

**(Amendment No.    )**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, For Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to § 240.14a-12

**Pacific Biosciences of California, Inc.**

(Name of Registrant as Specified In Its Charter)

**Illumina, Inc.**

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

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On November 1, 2018, the following article was published by Forbes Media LLC at the website:  
<https://www.forbes.com/sites/matthewherper/2018/11/01/dna-sequencing-giant-illumina-will-buy-pacific-biosciences-for-12-billion-exclusive-ceo-interview/#49b86da87c78>.

### **DNA Sequencing Giant Illumina Will Buy Pacific Biosciences For \$1.2 Billion – Exclusive CEO Interview**

By: Matthew Herper, Forbes Staff

Illumina, the dominant maker of DNA sequencing machines, has agreed to purchase smaller rival Pacific Biosciences for \$8 a share, or \$1.2 billion, in an effort to cement its ownership of cutting-edge genetic research.

The deal represents a 79% premium to yesterday's closing price for Pacific Biosciences stock. The deal would be the largest that Illumina, which made \$726 million on \$2.75 billion in sales in 2017 and sports a \$46 billion market capitalization, has done in its 20-year history.

"This extends the market opportunity in front of us," says Francis deSouza, who has been Illumina's chief executive since 2016. He argues that the two companies' technologies are very different, but their cultures are complementary. This will lead to more discoveries and faster growth. "What it will mean for the market and customers is that by combining these two approaches and the data from these two companies we will give consumers a more perfect view of the genome."

Illumina has driven the cost of sequencing a human genome—a nearly complete sequence of a single person's DNA code—down from \$10 million a decade ago to less than \$1,000 now, leading to an explosion of scientific research and medical uses for patients with cancer and rare diseases. DeSouza has said that he expects that Illumina will be able to eventually lower the cost per genome to \$100 per person.

But there are limitations to the technology used by the company, which is based in San Diego. Illumina's machines work by reading many tiny fragments of DNA and assembling them. This is known as "short-read" technology. For most parts of the human genome, this works fine, but it is not as useful in cases where the DNA has been structurally rearranged, or in areas where a pattern in the DNA repeats again and again, making it harder to puzzle the code together from tiny pieces.

That's where "PacBio" comes in, deSouza says. PacBio's DNA sequencers can look at a single molecule of DNA and decode long stretches of it with high accuracy. But the cost is much higher. Currently, it would cost \$12,000 to sequence a single human genome with PacBio machines. A new technology update should cut that figure in half. A replacement of the core chip the system uses, expected next year, could eventually bring the cost down to \$1,000 per genome. Illumina expects the long-read market to grow from \$600 million today to \$2.5 billion in 2021. "We're going to make that technology more accessible around the world," deSouza says. Illumina isn't the only one excited about PacBio's upcoming improvements. "It's starting to have a place in human genetics," says Stacey Gabriel, senior director of the Genomics Platform at the Broad Institute of MIT and Harvard.

The Illumina and PacBio technologies do not have to be used separately. Researchers could also use PacBio's long-read machines, which sell for \$350,000 each, in combination with Illumina's instruments, which can approach \$1 million each, to produce more complete genomes of any organism.

There is competition in the long-read market, most notably from Oxford Nanopore, which has created a smaller and portable technology. DeSouza argues that after the forthcoming advances, the PacBio technology will be more accurate. The reason is that the errors made by PacBio are random, which means that if you can sequence a DNA molecule more times, they eventually go away. The errors of nanopore technology, which works by passing a strand of DNA through a tiny hole, are not random and may not be fixable using brute force.

“The place where PacBio really differentiates itself is accuracy,” says deSouza. “Its accuracy profile is really better than anything else in the [long-read] market.”

Pacific Biosciences was originally supposed to be an Illumina-killer. Founded in 2003 by chief technology officer, Steven Turner, who invented the firm’s basic technology with PacBio’s chief scientific officer, Jonas Korlach, PacBio emerged in 2009 boasting that it would disrupt the sequencing market, raising \$360 million in venture capital and scoring a \$200 million initial public offering. But its machines were too slow, expensive and unwieldy to slow down Illumina’s ascent. Shares plummeted, and even at the rich premium being offered by Illumina, shares are at half the IPO price.

PacBio was rescued by a team of DNA-sequencing veterans, including Chief Executive Michael Hunkapillar, who had been a top executive at Applied Biosystems when that company was the leading maker of DNA sequencers in the early 2000s, and Chief Commercial Officer Kathy Ordonez, who led Celera Genomics, which raced the government to sequence the first human genome, after its founding president, Craig Venter, was fired. They focused the business as a niche instrument, not a giant killer.

Still, PacBio has gotten mixed reviews from Wall Street. Of eight sell-side analysts covering the company, according to Bloomberg, only three say to buy the stock. In August, analysts at J.P. Morgan said an earnings miss and uncertainty about near-term sales outweighed its potential sales. This morning analysts at Cantor Fitzgerald reiterated a buy rating on the company, writing that the company “is getting close to an inflection point, which we think the Street is missing.” Whether that inflection point is coming to PacBio’s topline, it certainly just came for sales.

The deal was just signed, and deSouza says he hasn’t been able to talk to any of the PacBio executives about staying on at Illumina. “We’ve known for a while that the team at PacBio is extraordinarily talented, and we’d love to have them at Illumina,” he says.

#### ***Additional Information about the Merger and Where to Find It***

This communication may be deemed to be solicitation material in respect of the merger of Pacific Biosciences with a wholly owned subsidiary of Illumina. Pacific Biosciences intends to file relevant materials with the Securities and Exchange Commission (the “SEC”), including a proxy statement in preliminary and definitive form, in connection with the solicitation of proxies for the merger. The definitive proxy statement will contain important information about the proposed merger and related matters. **BEFORE MAKING A VOTING DECISION, STOCKHOLDERS OF PACIFIC BIOSCIENCES ARE URGED TO READ THE DEFINITIVE PROXY STATEMENT AND OTHER RELEVANT MATERIALS CAREFULLY AND IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT PACIFIC BIOSCIENCES AND THE MERGER.** Stockholders will be able to obtain copies of the proxy statement and other relevant materials (when they become available) and any other documents filed by Pacific Biosciences with the SEC for no charge at the SEC’s website at [www.sec.gov](http://www.sec.gov). In addition, stockholders will be able to obtain free copies of the proxy statement from Pacific Biosciences by contacting Pacific Biosciences’s Investor Relations Department by telephone at (650) 521-8450, by mail to Pacific Biosciences, Attention: Investor Relations Department, 1305 O’Brien Drive, Menlo Park, CA 94025, or by going to Pacific Biosciences’ Investor Relations page on its corporate website at [www.investor.pacificbiosciences.com](http://www.investor.pacificbiosciences.com).

#### ***Participants in Solicitation***

Pacific Biosciences and its officers and directors and Illumina and its officers and directors may be deemed to be participants in the solicitation of proxies from Pacific Biosciences’ stockholders with respect to the proposed merger. Information about Pacific Biosciences’ officers and directors and their ownership of Pacific Biosciences common shares is included in their SEC filings on Forms 3, 4, and 5, and additional information about Pacific Biosciences’ directors and executive officers is also available in the definitive proxy statement for Pacific Biosciences’ 2018 Annual Meeting of Stockholders, which was filed with the SEC on April 4, 2018. Information about Illumina’s officers and directors is set forth in the proxy statement for Illumina’s 2018 Annual Meeting of Stockholders, which was filed with the SEC on April 6, 2018. Investors and security holders may obtain more detailed information regarding the direct and indirect interests of the participants in the solicitation of proxies in connection with the acquisition by reading the definitive proxy statement to be filed by Pacific Biosciences with the SEC.

### ***Safe Harbor for Forward-Looking Statements***

This communication contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 with respect to the proposed merger between Illumina and Pacific Biosciences that are not purely statements of historical fact. Forward-looking statements are statements relating to the future which are based on information available at the time such statements are made, including information relating to risks and uncertainties. Although we believe that the forward-looking statements are based on reasonable assumptions, the matters discussed in the forward-looking statements may be influenced by factors that could cause actual outcomes and results to be materially different from those expressed or implied by these statements. We identify the forward-looking statements by using the words ‘anticipates’, ‘believes’, ‘expects’, ‘intends’ and similar expressions in such statements. Investors are cautioned not to place undue reliance on any such forward-looking statements. Such risks and uncertainties include: the failure to obtain stockholder approval of the proposed merger; the possibility that the closing conditions to the proposed merger may not be satisfied or waived, including that a governmental entity may prohibit, delay or refuse to grant a necessary regulatory approval; delay in closing the merger or the possibility of non-consummation of the merger; the occurrence of any event that could give rise to termination of the merger agreement; the risk that stockholder litigation in connection with the contemplated merger may affect the timing or occurrence of the contemplated merger or result in significant costs of defense, indemnification and liability; risks inherent in the achievement of anticipated synergies and the timing thereof; risks related to the disruption of the merger to Pacific Biosciences and its management; and the effect of announcement of the merger on Pacific Biosciences’ ability to retain and hire key personnel and maintain relationships with suppliers and other third parties. These risks and others relating to Illumina and Pacific Bioscience are described in greater detail in their respective SEC filings, including (i) as to Illumina, Illumina’s Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as well as in other documents filed by Illumina with the SEC after the date thereof, and (ii) as to Pacific Biosciences, Pacific Biosciences’ Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as well as in other documents filed by Pacific Bioscience with the SEC after the date thereof. Illumina and Pacific Bioscience make no commitment to revise or update any forward-looking statements in order to reflect events or circumstances occurring or existing after the date any forward-looking statement is made, except as required by law.