



## Prepared Remarks for Illumina and Pacific Biosciences Conference Call

<b>Call Date/Time</b>	Thursday, 1 November 2018   2:00 PM Pacific Time (5:00pm Eastern Time)
<b>Participants</b>	Francis deSouza, <i>President &amp; Chief Executive Officer, Illumina</i> Mike Hunkapiller, Ph.D., <i>Chairman, CEO &amp; President of Pacific Biosciences</i> Sam Samad, <i>Chief Financial Officer, Illumina</i> Omead Ostadan, <i>Executive Vice President, Products &amp; Operations, Illumina</i> Jacquie Ross, <i>Vice President, Investor Relations, Illumina</i>

### Jacquie Ross:

Good afternoon everyone, and welcome to our conference call to discuss Illumina's agreement to acquire Pacific Biosciences. If you have not had a chance to review today's release, it can be found in the Investor Relations section of our website at [illumina.com](http://illumina.com).

Participating for Illumina today will be Francis deSouza, President and Chief Executive Officer, Sam Samad, Chief Financial Officer, and Omead Ostadan, Executive Vice President of Products and Operations. We are also pleased to welcome Mike Hunkapiller, Chief Executive Officer of Pacific Biosciences. Francis and Mike will share some prepared remarks, and then we will open the call for some questions.

This call is being recorded and the audio portion will be archived in the Investor section of our website. It is our intent that all forward-looking statements regarding our financial results and commercial activity made during today's call will be protected under the Private Securities Litigation Reform Act of 1995.

Forward-looking statements are subject to risks and uncertainties. Actual events or results may differ materially from those projected or discussed. All forward-looking statements are based upon current available information, and Illumina assumes no obligation to update these statements.

To better understand the risks and uncertainties that could cause actual results to differ, we refer you to the documents that Illumina files with the Securities and Exchange Commission, including Illumina's most recent forms 10-Q and 10-K.

Additionally, please note that today's presentation does not constitute the solicitation of a proxy vote. The information discussed today is qualified in its entirety by the proxy statement that Pacific Biosciences will be filing with the SEC in the future. The shareholders of Pacific Biosciences are urged to read the proxy statement carefully when it becomes available, because it will contain important information about the proposed transaction.

With that, I will now turn the call over to Francis.

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### Francis deSouza:

Good Afternoon everyone, and thank you for joining our call on such short notice, and in the middle of earnings season. As you have seen from our press release, Illumina just announced that we've signed an agreement to acquire Pacific Biosciences for a total purchase price of approximately \$1.2 billion, or \$8.00 per share, subject to satisfying closing conditions including regulatory approvals. This acquisition will be Illumina's largest since Solexa in 2007, and I appreciate the opportunity to share our rationale and excitement around the combination of the two companies.

In the decade since our acquisition of Solexa, Illumina's short read SBS-based technology has transformed the landscape of genomics with the delivery of large scale and increasingly economical sequencing. Illumina's SBS technologies have played an integral role in helping researchers push the frontiers of genomics across a breadth of applications including whole genome sequencing, NIPT, liquid biopsy, rare and undiagnosed genetic disease, and immune oncology. With the innovation headroom SBS has, we expect Illumina's SBS technologies to remain the platform of choice for the majority of sequencing applications moving forward, as our combination of scalability, accuracy and affordability will remain unmatched.

It is also clear to us that highly accurate long reads play a complementary and important role in elucidating certain aspects of the genome which is why we are excited about the promise of Pacific Biosciences' technology and its roadmap.

Specifically, Pacific Biosciences' accurate native long reads, averaging 15 to 30 kilobases, provide valuable insights around long range rearrangements, structural variants, and haplotypes which can be challenging using short read technologies. Accurate long reads can range across longer portions of a genome helping to resolve ambiguity in assembly, and thereby providing a more comprehensive view of these classes of variants. For that reason, accurate long-reads have been adopted for applications where access to complex regions is more important than cost or scalability, for example in *de novo* assembly and pharmacogenomics.

Historically, the challenge for long-read technologies has been accuracy and cost. However, Pacific Biosciences recent technology breakthroughs have demonstrated an unparalleled level of accuracy for native long reads, which - when coupled by the impending release of the company's 8M Smart Cell - will substantially improve the utility and affordability of this technology.

These innovations drive our enthusiasm for bringing our companies' technologies together now. Specifically:

- PacBio's latest system update, released last month, including the version 3.0 chemistry and version 6.0 software, with new protocols, reagents, and algorithms doubled the previous output of the current Sequel system.
- PacBio's recent demonstration of a unique workflow that generates the highest read accuracy of any long-read platform. With this level of accuracy, researchers will be able to create complete genome assemblies at Q50 consensus quality to comprehensively and accurately detect all classes of variants. Importantly, PacBio's improved workflow will obviate the need for large quantities of high molecular weight DNA which hinders other long read technologies.
- These advances, coupled with the 8M Zero Mode Waveguide - or ZMW - chip expected to be available next year, will increase output and reduce cost per base of the Sequel system by an order of magnitude, enabling more economical and scalable approaches to discovery

PacBio's significant reduction in cost per Gb, improvement in accuracy, and faster turnaround time make long-read technologies accessible to a much larger user base. This is consistent with Illumina's long-standing commitment to democratize sequencing: enabling customers of all sizes to gain access to highly accurate sequencing technology with the broadest scope of applications.

Bringing together Pacific Biosciences' highly accurate native long reads with Illumina's highly accurate and economical short reads, will uniquely position us to broaden and accelerate the use of sequencing across broad range of existing and emerging applications and move closer to delivering a perfect view of the genome: one that is accurate, complete, fast, and economical.

We are therefore very excited about the opportunity to combine with Pacific Biosciences for several strategic reasons:

- First, we expect the combination will expand our addressable market by broadening the opportunities in de novo assembly in plant and animal, functional genomics, tissue transplant, and pharmacogenomics. These applications often require uniform, unbiased coverage in highly repetitive regions, which long-reads are best suited to provide. We believe that the total opportunity for these long-read applications is approximately \$660 million in 2017, and growing to about \$2.5 billion in 2022, a CAGR of about 30%.
- Second, the power of improved structural variant and CNV analysis enables improved studies – and potentially accelerates discovery – in areas like rare and undiagnosed diseases, oncology, and clinical microbiology that often involve phased genomes without access to a reference.
- Third, Illumina is committed to bringing the best sequencing solutions to market, and we believe the combination will allow both companies’ technology roadmaps to accelerate as we make the most of our combined expertise, infrastructure and discoveries to shorten time to market for innovations that address critical customer needs, continue cost reduction, and integrate workflows; and
- Finally, and importantly, both companies share an unwavering commitment to innovation and to the creation of highly accurate products.

In the near term, we will broaden customer access to PacBio’s portfolio through Illumina’s global sales and support channel. In addition, our Global Quality, Operations and Regulatory capabilities will enhance product performance, optimize customer experience, and explore regulatory clearance for PacBio’s products in multiple geographies.

Over time we will provide more seamless integration of the workflows and analytical pipelines to allow customers easier access to the combined power of the two technologies.

We expect that, together, these benefits will allow broader market access enabling faster growth.

Together we will provide more researchers, more physicians, more patients and more consumers a more perfect view of a genome.

With that, I’d like to hand the call over to Mike for a few remarks.

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**Mike Hunkapiller:**

Thank you, Francis.

I am very pleased with the announcement of our planned combination with Illumina, and to be sharing with our employees, customers and investors that we will be joining the Illumina family.

I am extremely proud of the work that the PacBio team has accomplished as a standalone company, and I believe that – as part of Illumina – we can continue to innovate our SMRT Sequencing capabilities and reach more customers and address more applications substantially faster than we could do as a standalone enterprise.

As Francis has mentioned, not only do the two companies share a commitment to accuracy, supporting the scientific and clinical markets with quality products, and to customer-focused innovation, but we also share a similar culture that we think will enable us to integrate quickly and continue to deliver on our technology roadmap that substantially broadens the addressable opportunity for our complementary, long-read platform.

We look forward to serving our customers as part of Illumina in the future. In the meantime, we remain committed to executing on our product roadmap, and continue to target early access of the 8M chip during Q1 2019, with a broader launch of the chip in the second quarter.

With that, I'll hand the call back to Francis.

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**Francis deSouza:**

Thank you, Mike. I know I speak on behalf of the whole team when I say that we are looking forward to integrating short-read and long-read technology solutions to offer our customers even more capabilities and innovations over time.

I'll open up the call to questions momentarily, but first – of course – should remind you that the transaction is subject to the approval of PacBio's shareholders and the satisfaction of customary closing conditions, including applicable regulatory approvals. In the meantime, it's business as usual for both companies who will continue to operate as completely independent entities, and I know you will appreciate that – after today - we will not be sharing too many details until such time as the transaction closes.

In summary, today's announcement is a testament to Illumina's commitment to deliver the broadest and most accurate portfolio of sequencing capabilities for clinicians, patients, consumers, labs, and researchers. Together, Illumina and PacBio will grow the market, support new discoveries, and accelerate technology roadmaps.

Together, a more perfect view of a genome is in sight.

Operator, we are ready to begin the Q&A.

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**Jacque Ross:**

As a reminder, a replay of this call will be available as a webcast in the Investor section of our website, as well as through the dial-in instructions contained in today's press release. Thank you for joining us today.