

## **Todd Friedman (Investor Relations)**

Good afternoon and welcome to PacBio's second quarter 2022 earnings conference call.

Earlier today, we issued a press release outlining the financial results we will be discussing on today's call, a copy of which is available on the Investor's section of our website at [www.pacb.com](http://www.pacb.com) or as furnished on Form 8-K available on the Securities and Exchange Commission website at [www.sec.gov](http://www.sec.gov).

With me today are:

- Christian Henry, President and Chief Executive Officer, and
- Susan Kim, Chief Financial Officer

Before we begin, I would like to remind you that on today's call, we will be making "forward-looking statements," including statements regarding predictions, progress, estimates, plans, expectations, intentions, guidance, and others, including expectations with respect to collaborations, cash flow, and product and technology launches. You should not place undue reliance on forward-looking statements because they are subject to assumptions, risks, and uncertainties and could cause actual outcomes and results to differ materially from currently anticipated results. These risks and uncertainties as well as other risks and uncertainties are more fully described in our press release earlier today and in our Form 8-K, Form 10-Q, Form 10-K and other filings with the Securities and Exchange Commission. We disclaim any obligation to update or revise these forward-looking statements except as required by law.

During the call, we will also present certain financial information on a non-GAAP basis. Management believes that non-GAAP financial measures, taken in conjunction with U.S. GAAP financial measures, provide useful information to compare our performance relative to forecasts and strategic plans and to benchmark our performance externally against competitors. Reconciliations between U.S. GAAP and non-GAAP results are presented in tables within our earnings release.

In addition, please note that today's call is being recorded and will be available for audio replay on the Investor's section of our website shortly after the call. Investors electing to use the audio replay are cautioned that forward-looking statements made on today's call may differ or change materially after the completion of the live call.

I will now turn the call over to Christian.

## **Christian Henry (President and CEO)**

Good afternoon, everybody. We appreciate you joining us today. On today's call, I'll provide an update on our outlook for 2022 revenue, highlight our results for the second quarter of 2022, and discuss some recent business and commercial successes. Then Susan will get into our financial results and guidance in more detail.

September will mark my two-year anniversary at PacBio, and in that time, we have undergone a remarkable transformation. First, we've been able to build a talented and experienced team to lead the company and execute a strategy that will leverage our technology and commercial scale to serve our customers around the globe and drive growth. We also acquired Omniome and Circulomics adding core products and technologies to our portfolio. As a result of these acquisitions and through our aggressive product development investments, we expect to be the first company to commercialize both highly accurate long read and short read technologies, providing our customers the right product for their application of interest and, as a result, serving the entire genomic sequencing landscape. Additionally, we believe that our portfolio will create significant value for our customers as we provide them with the capabilities required to discover novel biology with unprecedented detail at compelling scale and economics. We have not only invested in developing new technologies, we've also continued to improve our highly accurate Sequel IIe platform to provide even more customer value. For example, just this past quarter, we launched the ability for our customers to look at epigenetic markers with each sequencing run for no additional cost. Compared to various short read sequencing technologies, this feature dramatically simplifies the ability to see epigenetic markers because the workflow doesn't require multiple sequencing runs with different sample preparations to capture all the data. We've also collaborated with leading organizations to show how highly accurate, long reads can transform clinical research. I think you'll agree that the PacBio today looks a lot different than it did two years ago.

There is no question, though, that we're operating in an uncertain macroeconomic environment. These macro issues do not change our, nor our customers', enthusiasm for PacBio sequencing. However, we are finding that these factors broadly play a role in customer purchasing patterns and their ability to operate at scale – especially as our business is currently dependent on large capital purchases. As a result, we have reevaluated our current outlook for the year to take these macroeconomic factors into account.

Specifically, we expect EMEA to be lower than our original forecast as we see the region to be most affected by longer purchasing cycles. In addition, foreign exchange headwinds and increased competition are expected to have a greater impact there than in other parts of the world. We're also seeing that some of our larger customers in the region are ramping their utilization to pre-Omicron levels at a slower-than-anticipated pace, due to staffing shortages, among other things. We believe this has and will continue to have an impact on our consumables revenue for the remainder of the year.

In China, the second quarter was impacted more than we expected from COVID lockdowns, and we expect it to take longer for customers to ramp back to pre-lockdown levels in addition to ongoing risk of localized lockdowns being reintroduced. For example, lockdowns at certain customer locations prevented us from installing newly acquired Sequel IIe systems which had an impact on consumable revenue in China. Excluding China, we are quite pleased with the performance in the rest of APAC, especially in Japan where commercial investments made in 2021 are driving significant

opportunities and growth for the region. As China returns to a more normal operating environment, we believe our strengthened commercial team will be able to drive diversified growth throughout APAC.

In the Americas, recession fears, volatile capital markets, and a growing number of sequencing entrants are slowing purchasing patterns as well. However, the region remains mostly resilient as it posted record revenue and grew over 50% compared to the second quarter of last year as we're growing in multiple markets – from human genome to gene editing, to microbiome. The strength and diversity of our customers in the U.S. market gives me confidence that other regional headwinds are only temporary and will re-accelerate going into next year and beyond.

Considering these broader issues, we have re-examined our full-year forecast, and we now expect 2022 revenue to be in the range of \$138 to \$145 million – or about 8% year-over-year growth at the midpoint.

We expect an improving environment throughout the balance of the year with both third and fourth quarter growing sequentially – both in total revenue and instruments placed. In fact, consumable shipments are off to a strong start for the quarter with July being the strongest month one of any quarter this year.

While lower than we previously forecasted, I want to reiterate that we believe this is primarily due to macroeconomic factors, in particular outside of the United States – which we do believe to be transitory. Our market opportunity has not changed and we remain committed to our strategy to become a multi-platform company enabling the most complete and accurate view of the genome. I am confident in our strategy, and I am excited about our progress, in developing our revolutionary long- and short-read platforms, which we believe will be key drivers of our growth.

Also, our balance sheet remains strong. At quarter end, we had \$899 million in cash and investments. Today, I am reaffirming our belief that, even in spite of the short-term macroeconomic challenges we've seen, we have the capital required on our balance sheet to execute on our current development and commercialization plan which we believe will enable us to reach positive cash flow. This is a top priority for the company.

Susan will expand further on guidance a little later, but first, I'd like to highlight our results for the second quarter.

We reported \$35.5 million in revenue in the second quarter representing 16% year-over-year growth – which was in line with our guidance for sequential growth.

Q2 was our sixth consecutive quarter of double-digit year-over-year growth, and as I previously mentioned, our Americas region posted record revenue. In Q2, we were pleased to see that about one-third of our Sequel IIe placements were to brand new PacBio instrument customers across all of our target markets.

This demonstrates that we continue to grow even amidst higher comps, a maturing product cycle, and broader macroeconomic factors.

We've continued to see momentum in Human applications as well, with over 40% of our revenue in the first half to customers working on human genomics, compared to just over a third of our revenue in 2021.

This includes applications in genetic disease research where highly accurate long reads can help better understand complex genomic variation. For example, another top-tier children's hospital in the U.S. received its first Sequel IIes in the second quarter to accelerate its studies into genetic disease. Notably, the customer cited our newly released methylation detection capability as a key differentiator in deciding to purchase these systems.

Additionally, we shipped Sequel Iles to multiple genome centers in the second quarter in support of whole genome research initiatives in the U.S. And, in Japan we provided Sequel Iles to a large-scale service provider in support of ongoing and upcoming cancer research initiatives in the country.

Our customers continue demonstrating the power of PacBio HiFi sequencing through numerous publications and preprints. Notably, the Human Pangenome Reference Consortium, or the HPRC, posted several preprints describing the first human pangenome reference this past quarter. HiFi directly assembled this reference from 47 genetically diverse individuals. The transition from the single, linear reference commonly used today to a pangenome reference represents a paradigm shift in human genetics. It improves variant calling and resolution of complex regions such as tandem repeats and segmental duplications and is more representative of a diverse population. Before building this reference, researchers first benchmarked the best sequencing approaches and determined that highly accurate long reads were the best-suited technology. Further, this is shifting the sequencing paradigm toward a fully-phased, 6-gigabase genome versus the commonly used 3-gigabase genome, which the HPRC shows HiFi is uniquely suited to assemble.

In plant and animal genomics, studies showed a sustained use case for HiFi, as accurate, long reads are best suited for assembling highly complex genomes. In a preprint last month, researchers from Utah State and other universities compared different long read technologies and showed that “HiFi reads consistently outperform all other data types for both plants and animals and may represent a particularly valuable tool for assembling complex plant genomes.”

In microbiology, Biopark, a service provider in Korea, purchased a Sequel Ile in the second quarter to advance human microbiome and drug-resistance microbial research with funding from the Korean government agency.

Other emerging applications, like AAV gene vector sequencing, with our latest protocol and on-instrument workflow, continued to drive placements as we delivered multiple Sequel Iles in the second quarter to customers working on vector validation and research.

In the second quarter, we've progressed our product development to enable more applications, better data, and higher levels of automation and standardization, all while making great progress toward future product launches.

We've released new custom, targeted enrichment capabilities as part of our collaboration with Twist Bioscience. These panels can provide customers a cost-effective and high-throughput way to sequence particular genes of interest, delivering comprehensive detection of single nucleotide variants, structural variants, and indels for any genomic interval, including difficult-to-sequence or difficult-to-map regions of the genome.

We also re-formatted and re-launched our Nanobind extraction technology from our Circulomics acquisition to be integrated with HiFi – allowing for a more seamless sequencing workflow. As it was only launched a few years ago, most of our instrument customers have not yet used Circulomics' Nanobind extraction. This integration opens up the opportunity to get the differentiated product into more customers' hands and fully recognize the synergies between the two technologies.

Also on the workflow side, we've partnered with iLAC and the Robotic Biology Institute to develop fully automated end-to-end workflows for PacBio's Sequel II and Sequel Ile HiFi long-read sequencing systems by employing advanced robotics.

And in the backdrop of these enhancements, our field performance of SMRT cells continues to improve as part of our most recent chemistry and software release earlier this year. In fact, the average yield per SMRT cell is hitting records

with over 30% more gigabases of output per cell than we saw in 2021. This on-market improvement enables customers to do more sequencing with Sequel II than ever before.

We made excellent progress toward the launch of new products – Such as our Kitted MAS-Iso-Seq solution which remains on track for commercial release in the fourth quarter. Early access customer sites have been identified and will begin using the product later this quarter. The commercialized kit is expected to have a higher and more robust throughput performance than the original MAS-Iso-Seq method outlined in a preprint last year, with reduced library preparation time and reagent use. The solution will come with a SMRTLink workflow to produce isoform-level single-cell data compatible with tertiary analysis tools and will enable the size and scope of experiments that have driven the breakout growth we've seen in single cell genomics. Meanwhile, early adopters of the MAS-ISO-Seq method, particularly in the oncology and neuro disease research space, tell us that they can now see critical, full-length isoform information missing from their short-read single-cell data.

Turning to our Sequencing by Binding platform development, we shared some exciting data at AGBT around SBB's exquisite accuracy and variant calling performance. After speaking with customers, we left the conference feeling even more invigorated about how SBB's unparalleled accuracy can accelerate genomic discoveries. Our team remains on track for commercial launch in the first half of next year. We're in active discussions with potential beta sites and we anticipate beginning our full beta program in the next few months. We are also engaging with potential partners across the ecosystem to ensure the system is user-friendly and compatible at launch. Meanwhile, our in-house systems continue to sequence incredibly well, achieving accuracy scores with over 90% of bases at or above Q40 and the system has demonstrated both single-end 200 base pair read lengths and 2 by 150 paired-end read lengths.

And lastly, I'm pleased that we reached an agreement with Invitae in June that provides a roadmap and incentives for them to accelerate their sequencing on PacBio HiFi and still leverages their expertise in our development of ultra-high throughput sequencers. I believe these new technologies will be even more important in Invitae's re-focused business as they aim to deliver the most comprehensive genomes.

Turning to other organizational updates, today we unveiled our first ESG Highlights Report. The report showcases our approach to environmental sustainability, social justice, and responsible governance and outlines our progress in these areas. Over the coming years, we expect to continue to invest in our ESG program as a key component of our long-term business strategy.

And finally, we look forward to welcoming our new Chief Commercial Officer, Jeff Eidel, later this month. I've personally worked with Jeff for over a decade, and his knowledge and experience in genomics will drive significant value across PacBio.

With that, I'll hand to call off to Susan to talk about our financial results in more detail, Susan?

## Susan Kim, CFO

Thank you, Christian. As discussed, we reported \$35.5 million in product and service revenue in the second quarter of 2022, which represented an increase of 16% from \$30.6 million in the second quarter of 2021, and 7% sequential growth compared to \$33.2 million in the first quarter of 2022.

Instrument revenue in the second quarter was \$15.6 million, an increase of 9% from \$14.3 million in the second quarter of 2021.

In the second quarter we modified our agreement with Invitae and recognized \$3.7 million in instrument revenue related to Sequel Iles delivered to Invitae in the quarter.

We delivered 36 Sequel II and Sequel Ie Systems during Q2, growing the installed base to 460 systems as of June 30, 2022.

Turning to consumables, revenue of \$14.6 million in the second quarter grew 19% from \$12.2 million in the second quarter of last year and Sequel II and Ie consumables represented approximately 86% of our total consumable revenue in the second quarter, with the rest from older systems and other consumables.

Annualized pull-through per system on the Sequel II and Ie installed base in the second quarter was approximately \$120 thousand. Headwinds from pandemic-related lockdowns in China, continued through most of the second quarter. Additionally, new customers have been taking longer to get up to full speed as supply chain constraints have affected other inputs in customers' workflow, such as servers and automation equipment.

Finally, service and other revenue grew to \$5.3 million in the second quarter compared to \$4.1 million in the second quarter of 2021 reflecting our growing installed base.

From a regional perspective,

Americas had a record quarter with revenue of \$21.7 million and grew 51% compared to the second quarter of 2021. We shipped Sequel Iles to a growing and diverse set of customers in the quarter including AnimalBiome, which is implementing PacBio HiFi and has plans to leverage concatenation for 16S sequencing in their industry leading direct-to-consumer pet microbiome tests. Human germline applications, though, were the primary driver with nearly half the region's instruments delivered to customers in this focus area.

Asia Pacific, revenue of \$8.0 million reflected a 18% decline over the prior-year period primarily due to China, which was 30% lower compared to the second quarter of 2021. We were pleased to see revenue growth in other APAC countries help to offset some of the lower revenue in China.

Finally, EMEA revenue of \$5.8 million was 12% lower compared to the prior year period and was impacted by broader macro dynamics which slowed customers' capital purchases. In addition, the region had an FX headwind of approximately 7% when compared to Q2 2021.

Moving down the P&L, GAAP gross profit of \$16.2 million in the second quarter of 2022 represented a gross margin of 45.7%. Excluding amortization of intangible assets, second-quarter 2022 non-GAAP gross profit of \$16.4 million represented a gross margin of 46.2%, compared to a GAAP and non-GAAP gross profit of \$13.8 million or 44.9% in the

second quarter of last year. The increase compared to the second quarter of last year was partially driven by a multi-instrument order at higher ASPs, as well as greater consumable and service revenue volume due to a growing installed base of Sequel II/IIe's in Q2 2022.

GAAP operating expenses were \$84.2 million in the second quarter of 2022; excluding change in fair value of contingent consideration of \$5.4 million, non-GAAP operating expenses were \$89.6 million. This represents a 74% increase from non-GAAP operating expenses of \$51.3 million in the second quarter of last year, reflecting growth in headcount, operating expenses related to the acquisition of Omniome, increased R&D spend, and increased travel as we transition out of the pandemic remote environment.

In terms of headcount, we ended the quarter with 782 employees compared to 728 at the end of 2021.

GAAP and non-GAAP operating expenses in the second quarter included a total non-cash stock-based compensation of \$18.0 million, compared to \$13.9 million in the second quarter of last year.

GAAP net loss in the second quarter of 2022 was \$71.4 million, or 32 cents per share. Excluding amortization of acquired intangibles and change in fair value of contingent consideration, non-GAAP net loss was \$76.6 million representing 34 cents per share compared to a GAAP and non-GAAP net loss of \$41.0 million or 21 cents per share in the second quarter of 2021.

Now, turning to our Balance Sheet.

We ended the second quarter with \$899 million in unrestricted cash and investments, compared with \$963 million at the end of the first quarter of 2022.

Inventory balances increased in the second quarter to \$36.1 million, representing 2.3 inventory turns, compared with \$29.6 million at the end of the first quarter of 2022, representing 2.8 inventory turns. Similar to last quarter, the decline in inventory turns reflects our strategy of increasing safety stock levels to manage global supply chain risk, to continue to ensure we have the necessary materials on hand to meet our customer demand.

Accounts Receivable decreased in the second quarter to \$27.1 million, reflecting a DSO of 70 days, compared with \$27.9 million at the end of the first quarter of 2022, reflecting a DSO of 71 days.

Long-term deferred revenue declined approximately \$23 million and current deferred revenue increased approximately \$21 million for a net change of approximately \$2M in Q2, primarily as a result of:

- (i) A multi-instrument order from Invitae in the quarter as well as
- (ii) Future credits awarded to Invitae via the amendment to the co-development agreement

Moving to guidance,

We are updating our expectation for full year 2022 revenue to approximately \$138 million to \$145 million, or ~8% growth at the midpoint.

While we continue to see increasing customer enthusiasm for our technology and products, broader macroeconomic dynamics including rising inflation, global supply chain constraints, volatile capital markets, and lockdown restrictions

associated with COVID-19 have lengthened customer sales cycles particularly for capital purchases. Therefore, we expect to ship fewer instruments this year than we originally expected

With respect to consumable revenue, lock downs in China have led to lower-than-previously-anticipated consumable revenue in the region as customers have difficulty accessing labs as well as lower sample volume from which to sequence. In addition, placing instruments with more new customers has lowered our average consumable pull through, and a lower than previously forecasted installed base has lowered consumable revenue estimates for the year.

On a quarterly basis, we expect the third quarter revenue to be slightly higher sequentially as we expect higher Sequel IIe placements and pull through to be partially offset with lower ASPs.

We expect non GAAP gross margin to be 44% to 45%, slightly lower than our previous guidance range, reflecting lower revenue volume and increasing costs associated with ongoing global supply chain constraints and rising inflation.

For OpEx, we have significantly reduced the pace of hiring in the second half of the year relative to our previous forecasts. However, we continue to make excellent progress on our next generation platforms and will continue to prioritize these investments. As such, we now expect Non-GAAP Operating Expenses to be between \$350 million and \$360 million. We expect that slowing our pace of hiring will translate into lower run rate of operating expenses entering 2023 while still giving us flexibility to make the appropriate investments in R&D and commercial to fuel our growth in 2023 and beyond.

'Interest and other' expense is unchanged and expected to be approximately \$15 million for the full year, reflecting interest expense and amortization of debt issuance costs for our convertible notes issued in 2021.

We expect the weighted average share count for purposes of EPS for the full year to be approximately 225 million shares.

With that, I will turn the call back to Christian.

**Christian Henry (President and CEO):**

Thank you, Susan. I hope your takeaway from our prepared remarks today is that PacBio remains extremely well-capitalized and well positioned to execute on our strategy despite the short-term volatility and uncertainty we see in the market. We sit in front of a huge multi-billion-dollar market opportunity with multiple technologies that we believe will uniquely position us to provide customers with products capable of delivering genomic insights unimaginable with the current status quo of sequencing. We look forward to engaging with our customers at ASHG in late October. And with investors, we hope to connect at the many conferences lined up in Q3 and we're hosting our first Analyst Day in November which we will be sharing details about next month.