Forward Looking Statements / Safe Harbor

Good afternoon and welcome to PacBio's first 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 or as furnished on Form 8-K available on the Securities and Exchange Commission website at 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, expectations for, including advantages and capabilities in connection with, new product, technology and software development and launches, and the anticipated timing of such development and launches; expectations resulting from continued building and enablement of a HiFi ecosystem; expectations with respect to our partnerships and collaborations; estimates, intentions, and plans to use the company's cash and investments to fund current development and commercialization initiatives until achieving positive operating cash flow without the need to raise additional capital, and other information. 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, including, challenges inherent in developing, manufacturing, launching, marketing, selling new products, and achieving anticipated new sales; competition; unanticipated increases in costs or expenses; interruptions or delays in the supply of components or materials for, or manufacturing of, PacBio products and products under development; potential product performance and quality issues and potential delays in development timelines; the impact of the COVID-19 pandemic; and risks associated with international operations, among others. 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 Chief Executive Officer)

Good afternoon, everybody. We appreciate you joining us today as we discuss our results for the first quarter of 2022 and our outlook going forward.

As usual, I'll walk through some business and commercial highlights and then Susan will walk through financials and guidance in more detail, and then we'll open it up to Q&A.

There are three key takeaways I'd like you to come away with from our discussion today:

First, we are executing on our core objective of rapidly expanding the installed base of Sequel II and IIe systems as evidenced by us achieving another record quarter of instrument shipments. This growth in our installed base will enable more HiFi data reaching the market.

Second, we are making excellent progress on our next generation of short and long-read sequencers. Our mid-throughput, short-read SBB instrument is on track for commercial shipment in the first half of next year and we continue to believe this will be the world's most accurate short read platform. We're also achieving our internal milestones towards the development of our next-gen long read sequencers.

And third, PacBio is in a strong financial position and based on our estimates, we intend to fund the company's current development and commercialization plans using the cash and investments on our balance sheet until we reach positive operating cash flows, without the need to raise additional capital. With the volatility in the equity markets today, this puts us in a unique and desirable position.

Now, let's walk through our Q1 results and discuss how the team is on track to execute on our 2022 plan.

The first quarter was a solid start to the year and in the upper end of our guidance range with revenue of $33.2 million, a 14% increase compared to the first quarter of last year. Given our revenue in the first quarter we continue to expect full-year revenue to be approximately $160 to $170 million in 2022 or 23% to 30% growth – Susan will touch on that later.

As we discussed on our last call, first-quarter revenue was lower sequentially due to COVID-19-related headwinds that disrupted our customers operations and our internal team's ability to interact with customers. Additionally typical first quarter seasonality was exacerbated by macroeconomic headwinds that delayed some capital purchases.

Despite these headwinds, I am pleased to share the team delivered another record instrument quarter with 50 Sequel II and IIe placements.

This is the third consecutive quarter of record Sequel II/IIe placements and over one-third were to new PacBio instrument customers – which continues to underscore the expanding value proposition of HiFi sequencing. New customer applications range from gene editing to plant & animal, to reproductive health and other areas.

We are gaining momentum in placing systems driven by our increased commercial presence, improved sales productivity, and significant product enhancements. We started our aggressive investment in early 2021, and since then, we've shipped more Sequel II and IIes than in the first two years of the product launch.

Our investment in expanding our sales force may lead to lower revenue-per-sales rep in the short-term, as new sales reps are spending significant amounts of time prospecting for new opportunities. This is a crucial step toward building a sustainable sales pipeline in each territory. We believe this is temporary, and, as our installed base grows, it will drive consumable growth and expand revenue-per-rep over the medium term. Additionally, as consumables generally carry higher gross margins than instruments, we will also benefit from gains in gross margin as our product mix changes. But revenue-per-sales rep is only one metric to drive sales productivity and we've made excellent progress improving the velocity of our sales cycle – for example, last quarter we discussed our 'instrument turns' metric to understand sales productivity, with over 90% of our instrument shipments in the quarter from current quarter sales. That trend continues as nearly all of our instrument shipments in Q1 were turned within the quarter.

Additionally, we are pleased to share that we delivered 18 additional Sequel IIe systems to the Broad Institute in the first quarter. Their investment in PacBio's HiFi technology positions them to address a breadth of whole genome and transcriptome sequencing research initiatives with the largest installed base of Sequel IIes in the world.

To further expand the range of addressable applications, last month, we launched significant enhancements to the Sequel II and IIe platform, and we couldn't be more pleased with the customer reception. Our new products allow:

- The detection of DNA methylation directly on the sequencing instrument with no added workflow steps or cost.
- A library protocol and on-instrument analysis support for recombinant adeno-associated virus (rAAV) genome sequencing for gene therapy research applications
- And significantly simplified library prep processes. Lab technicians can now go from DNA to sequencing in one shift and HiFi WGS requires even lower input – just 1 microgram per SMRT cell. The new processes are also much more scalable and enable customers to run at higher throughput.

We believe our DNA methylation offering will have a large impact in the field of epigenetics. Epigenetic differences in DNA methylation explain traits just as genetic differences in DNA sequence do. And HiFi sequencing now simultaneously characterizes both the genome and epigenome from a single sequencing library, in a single run. Approaches to measuring the epigenome with short reads, like whole-genome bisulfite sequencing, need special sample preparation with separate sequencing runs for the genome and epigenome, which adds cost and time, and do not address the whole genome. Other long read technologies fail to match HiFi sequencing in accuracy, particularly for insertion and deletion

variants and for separating and phasing the two alleles, and require complex analysis to detect methylation. Our offering provides DNA methylation directly from the sequencing instrument with no additional effort.

Our new methylation and our existing workflows like Iso-Seq are examples of how we are transforming into a multi-omic company. Children's Mercy Kansas City is expanding its collaboration with us to include these two features in its research study to understand the epigenetic and transcriptomic drivers of rare disease, in addition to exploring associated underlying genomic variants. They've already demonstrated how their use of HiFi has uncovered four times more rare coding structural variants than short-read sequencing and we expect adding PacBio methylation capabilities and isoform sequencing will further strengthen the use case for HiFi.

We look forward to improving our Iso-Seq offering later this year with a kit that we believe will dramatically increase throughput, and power higher output transcriptomic research.

We continued to add to our list of clinical research collaborators in Q1, and we now have over a dozen working collaborations with the goal of demonstrating HiFi utility across several applications. We're also pleased to offer our new AAV protocol & analysis solution for AAV vector gene therapy research. AAV vector gene therapy is an exciting and rapidly growing area, with over 150 companies working on AAV-based therapies today. High accuracy and complete visibility are critical to the success of novel vector discovery, vector design, and manufacturing quality control for gene therapy products. We believe HiFi sequencing can play a critical role in gene therapy-related research due to its ability to sequence full-length AAV genomes at high accuracy. This is important because qPCR, short reads and less accurate long-read technology can miss important changes that may be present in the AAV sequence, which could negatively impact our customers' research.

Over the past two quarters, we delivered eight instruments to new PacBio customers working on AAV and have several more in our sales pipeline. This new feature is yet another example of how we are developing end-to-end solutions tailored to our customer's specific application needs.

PacBio HiFi sequencing has long been a 'go-to' technology in plant and animal research due to their complex genomes and the value that highly accurate long reads bring to de novo assembly and building reference genomes. However, in order to enable broad adoption HiFi sequencing in commercial agriculture, new resource efficient, higher throughput methods are required. To that end, we are working with Corteva Agriscience to develop, end-to-end workflows for plant, pest and microbial sequencing to further their seed development and crop protection research and production pipelines. We anticipate that these new high-throughput agriculture protocols will be made broadly available to the community some time in 2023. The length and accuracy of HiFi is critical to new seed product development as these genomes tend to be more complex and harder to sequence and assemble.

Moving on, I'd like to acknowledge that there has been a lot of conversation lately comparing synthetic reads to native long reads, so I'd like to take a moment to describe three critical advantages of using native DNA: molecular integrity, absence of amplification steps, and simpler sample preparation and bioinformatics workflows.

First, because native DNA molecules that are extracted from cells are directly submitted to sequencing, the DNA fragment can be much longer compared to synthetic approaches. Having much longer and contiguous sequences leads to greater contiguity of information and improves the results in de novo genome assemblies as well as metagenome communities, haplotype phasing, epigenetic phasing, and structural variant detection.

Second, sequencing native DNA molecules, by definition, does not use DNA amplification or other molecular biology procedures, which are prone to biases, and can introduce errors, fragmentation and other artifacts. Synthetic long reads require these procedures and risk confounding studies with artifacts that can provide potentially inaccurate information. Sequencing of native, unaltered molecules enables our technology to look at genomes without these biases, resulting in better coverage uniformity, resolving diploid and polyploid genomes into fully phased alleles, and achieving greater genome completeness.

PacBio sequencing thereby accesses the whole genome, resolving structural variants and other regions of the genome considered "difficult-to-sequence" with short-reads due to limitations of the sequencer itself, which therefore cannot be overcome with synthetic long-read constructs. Further, amplification steps result in the complete loss of methylation information. Thus, by sequencing native DNA molecules, as I described earlier, PacBio provides both the genetic and the epigenetic information simultaneously, without any additional effort.

And third, the sequencing of long native molecules significantly simplifies all workflow aspects, from upfront sample and library preparation to bioinformatics at the back end. PacBio native long HiFi reads do not require bioinformatic read-correction steps, complicated read-assembly steps, consensus computations from oversampling, or subtractions from control samples.

We have seen time-and-time-again over the past decade numerous attempts at synthetic long read approaches, which were all eventually abandoned. We believe native long reads will continue to provide the most accurate, contiguous, and complete genomic and epigenomic information with ever increasing applications.

Nothing has highlighted the limitations of short-read sequencing in WGS more than the landmark publications from the telomere-to-telomere consortium, which completed the final 8% of the genome – something that short-read sequencing had been unable to do despite years of improvement in informatics and AI.

So, then I often get the question – Why isnt HiFi and long-read sequencing ubiquitous today? Why are genomes still being sequenced with incomplete and insufficient technology?

Cost, throughput, and accuracy have historically given short read technologies the edge and made short read the de facto winner over the last decade.

But just a few years ago, with the launch of HiFi sequencing – PacBio became the leader in sequencing accuracy as evidenced by the data from Precision FDA and the Association of Biomolecular Resource Facilities.

Our improvements in accuracy have enabled much broader adoption of long-read sequencing outside of its historical niche areas. We've now seen increased HiFi adoption in human applications – as we discussed the handful of clinical research collaborations in genetic disease and the growing list of customers conducting research in oncology, gene editing, and reproductive health.

We expect our next generation long-read sequencers, equipped with HiFi, will overcome the remaining two barriers of adoption – cost and throughput and mark the inflection point of large-scale adoption of whole genome sequencing using HiFi.

Moving on to short-reads, we remain on track to launch what we believe will be the most accurate short read sequencer. We expect this sequencer will address other high growth areas in the genomics market where HiFi sequencing may not be necessary. As part of our strategy, we see this as the best way to address our customer needs. We aim to develop the right instrument and chemistry for the right application and not force-fit one sequencing technology to address the entire market.

It is these transformative products in development along with the world-class team we have built that gives me confidence in PacBio's ability to deliver over the next several years.

However, delivering on our mission requires substantial investment. And in today's uncertain market and financing environment, we are extremely fortunate to have nearly $1 billion in cash on our balance sheet. And as I mentioned earlier, we intend to fund our current development and commercialization programs using cash and investments that we currently have on the balance sheet until we reach positive operating cash flows.

Finally, I'd like to take a moment to update you on our collaboration with Invitae. As you may recall, we have partnered with Invitae to create an ultra-high throughput sequencer capable of sequencing tens of thousands of whole genomes each year. The development of this new platform is going very well and there continues to be great enthusiasm for the potential of adopting HiFi sequencing at scale in a clinical setting. However, given the difficult capital environment, Invitae has asked us, and we are planning to, amend our agreement such that Invitae will no longer make payments during the research and development phase of the collaboration. In exchange, the pricing of the platform and related consumables to Invitae will be increased to be more in line with our expected market price. The other aspects of the collaboration will continue. For example, we expect Invitae will continue to leverage their internal resources to assist in the development of scaled workflows, bioinformatics pipelines and other aspects of the project. As a result of this

amendment, we believe that Invitae will be on a more level playing field with other large-scale users of our ultra-high throughput system. We expect to complete the amendment during the second quarter.

I want to reiterate that this proposed amendment is a result of the macroeconomic funding environment and does not reflect either company's enthusiasm for the collaboration, the development timelines, performance to-date, or other product specifications.

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

Susan Kim (Chief Financial Officer)

Thank you, Christian. As discussed, we reported $33.2 million in product and service revenue in the first quarter of 2022, which represented an increase of 14% from $29.0 million in the first quarter of 2021 and was at the high end of our guidance range.

Instrument revenue in the first quarter was $15.6 million, an increase of 4% from $14.9 million in the first quarter of 2021.

We delivered a record 50 Sequel II and Sequel IIe Systems during the first quarter, growing the installed base to 424 systems as of March 31.

Turning to consumables, revenue of $12.7 million in the first quarter grew 22% from $10.4 million in the first quarter of last year and Sequel II and IIe consumables represented approximately 85% of our total consumable revenue in the first quarter, with the rest from older systems and other consumables.

Annualized pull-through per system on the Sequel II and IIe installed base in the first quarter was approximately $115 thousand. In the first quarter, as we discussed on our last earnings call, we saw lower utilization largely due to the impact of COVID-19 slowing lab productivity. While we saw improvement in some regions towards the end of the quarter, the escalating cases in China and associated lockdowns impacted utilization throughout Q1. As we've discussed before, our record placements in Sequel II/IIe may have a short-term impact on pull through, especially as we onboard new customers.

Finally, service and other revenue grew to $4.9 million in the first quarter compared to $3.7 million in the first quarter of 2021 reflecting our growing installed base.

Shifting to a regional view,

Americas revenue of $19.1 million grew 57% compared to the first quarter of 2021 as the region delivered a record number of systems and grew consumable and service revenue commensurate with the larger installed base of Sequel II/IIe.

Moving to Asia Pacific, revenue of $8.4 million reflected a 1% decline over the prior-year period with lower instrument revenue partially offset by growth in consumables. Consumable growth was somewhat muted in the region with headwinds resulting from COVID-19 restrictions, particularly in China. Other parts of APAC saw strength with record consumables in Japan and our first system placement in Australia since Q2 of 2020, countries where we've been expanding our commercial reach.

Finally, EMEA revenue of $5.7 million was 32% lower compared to the prior year period as the region was most impacted by the surge in coronavirus cases earlier in the quarter - both at our customer sites as well as among our own

employees in EMEA. While COVID-19 impacted both instrument and consumable sales, the team still made great progress growing our reach with four countries in the region taking their first Sequel II/IIe – Israel, Serbia, Poland, and Austria. We also delivered the first Pacbio instrument to EMBL GeneCore – the European Molecular Biology Lab who is preparing to launch HiFi sequencing services across microbiology, human, and plant & animal applications.

Moving down the P&L, as a reminder, I will share both GAAP and non-GAAP results for gross margin, operating expenses, and net loss. I encourage you to review the GAAP reconciliation of these non-GAAP measures which can be found in today's release for more information.

GAAP gross profit of $14.2 million in the first quarter of 2022 represented a gross margin of 42.7%. Excluding amortization of intangible assets, first-quarter 2022 non-GAAP gross profit of $14.3 million represented a gross margin of 43.2%, compared to a GAAP and non-GAAP gross profit of $13.0 million or 44.8% in the first quarter of last year. The decline was predominantly due to the mix of instruments reflecting the largest volume of quarterly multi-instrument placements as well as the Sequel 1 trade-in incentive in the quarter in Q1 2022 resulting in lower instrument average selling prices partially offset by higher consumable volumes.

Moving on, GAAP operating expenses were $91.7 million in the first quarter of 2022; excluding a credit of $1.1 million related to contingent consideration remeasurement, which was due primarily to an increase in the discount rate, and expenses related to amortization of intangibles, non-GAAP operating expenses were $92.7 million. This represents a 99% increase from non-GAAP operating expenses of $46.7 million in the first quarter of last year, reflecting growth in headcount, operating expenses related to the acquisition of Omniome, and non-headcount related R&D spend.

In terms of headcount, we ended the quarter with 774 employees compared to 728 at the end of 2021.

GAAP and non-GAAP operating expenses in the first quarter included a total non-cash stock-based compensation of $20.9 million, compared to $9.2 million in the first quarter of last year.

GAAP net loss in the first quarter of 2022 was $81.5 million, or 37 cents per share. Excluding change in fair value of contingent consideration, amortization of intangible assets, and the repayment of continuation advances to Illumina, non-GAAP net loss was $82.3 million also representing 37 cents per share compared to a non-GAAP net loss of $35.4 million or 18 cents per share in the first quarter of 2021.

Now, turning to our Balance Sheet.

We ended the first quarter with $963 million in unrestricted cash and investments, compared with $1.04 billion at the end of 2021.

Inventory balances increased in the first quarter to $29.6 million, representing 2.8 inventory turns, compared with $24.6 million at the end of the fourth quarter of 2021, representing 3.6 inventory turns. 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 raw materials to meet our customer demand.

Accounts Receivable increased in the first quarter to $27.9 million, reflecting a DSO of 71 days, compared with $24.2 million at the end of the fourth quarter of 2021, reflecting a DSO of 62 days with the increase primarily due to more revenue booked later in the quarter.

Long-term deferred revenue remained relatively flat compared to the fourth quarter of 2021 at just over $25 million as we did not receive incremental cash from Invitae in the quarter as Christian discussed earlier.

Moving to guidance,

For the full year 2022, we continue to expect revenue in the range of $160 million to $170 million, representing a growth rate of approximately 23% to 30% compared to 2021. This guidance assumes there are no more significant or prolonged disruptions related to COVID-19 or its variants and it assumes the global supply chain constraints are not worsened. Specifically, our revenue guidance assumes the slower utilization we experienced in Q1 recovers and utilization in China improves by early summer. As such, our guidance assumes a back half of 2022 that is much stronger than the first half.

Specifically for the second quarter, we expect revenue to grow sequentially compared to the $33.2 million reported in the first quarter of 2022, with sequential growth in both the Americas and EMEA partially offset by a slight decline in APAC due to the record consumables revenue quarter we experienced in Japan for Q1.

Moving down the P&L, we expect the non-GAAP gross margin to be at the lower end of our previously guided range of between 45% and 47% mainly reflecting increasing supply chain costs.

For operating expenses, we expect the full year to now be in the range of $355 million to $365 million. The increase primarily reflects a non-recurring non-cash stock-based compensation expense true-up due to lower-than-expected employee attrition we observed in Q1.

We continue to expect ‘interest and other’ expense 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. The team executed tremendously in the first quarter amidst one of the most trying macro environments we've seen in a while. With a third of the year behind us, we believe that we are on track to meet the revenue target we set forth at the beginning of the year. Our product roadmap is full of exciting and innovative products that we can't wait to share with the genomics world, and by our estimate, we intend to fully commercialize these exciting new products using cash and investments that we currently have on the balance sheet and, in turn, we believe that will drive us to be operating cash-flow positive in the future. With that, I'd like to invite the operator to open the floor to Q&A