PacBio

The next chapter in genomic discovery is here

42nd Annual J.P. Morgan Healthcare Conference

Christian Henry, President and CEO

January 10, 2024

Forward-looking statements

All statements in this presentation (and any accompanying oral presentation) that are not historical of fact are "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the U.S. Private Securities Litigation Reform Act of 1995, including statements relating to our preliminary financial results as of and for the quarter and year ended December 31, 2023 as well as our expectations for future operating results, revenue, revenue mix, margins, guidance, goals and operating plans; expectations with respect to the commercial success of the Revio and Onso systems; expectations with respect to development and commercialization timeframes; future availability, uses, accuracy, sensitivity, advantages, compatibility, pricing, specifications, quality or performance of, or benefits or expected benefits of using, PacBio products or technologies, including the Revio and Onso systems; throughput, scalability, affordability, coverage, run times, data, density, type and cost per genome, pricing, consumable requirements, number of genomes that can be sequenced per year; the use of AI-enabled compute in the Revio system and related improvements in yield and accuracy; schedule flexibility and downtime; references that PacBio is the future of sequencing; expected delivery timeframes; expectations regarding competition in the short-and long-read sequencing technologies markets; market sizes, market and revenue growth and market opportunities, as well as our ability to capture market share; expected use applications; expectations with respect to collaborations, partnerships and acquisitions, including our ability to realize the anticipated benefits thereof; and other future events. Readers are cautioned not to place undue reliance on these forward-looking statements and any such forward-looking statements are qualified in their entirety by reference to the following cautionary statements. All forward-looking statements speak only as of the date of this presentation and are based on current expectations and involve a number of assumptions, risks and uncertainties that could cause the actual results to differ materially from such forward-looking statements, including, among others, challenges inherent in developing, manufacturing, launching, marketing and selling new products, and achieving anticipated new sales; challenges related to the testing, validation and commercialization of our products; potential product performance and quality issues and potential delays in development and delivery timelines; assumptions, risks and uncertainties related to the ability to attract new customers and retain and grow sales from existing customers; rapidly changing technologies and extensive competition in genomic sequencing that could make the products PacBio is developing obsolete or non-competitive; supply chain risks; customers and prospective customers curtailing or suspending activities utilizing our products; the impact of U.S. export restrictions on the shipment of PacBio products to certain countries; third-party claims alleging infringement of patents and proprietary rights or seeking to invalidate PacBio's patents or proprietary rights; and risks associated with macroeconomic and geopolitical conditions. Readers are strongly encouraged to read the full cautionary statements contained in PacBio's filings with the Securities and Exchange Commission, including the risks set forth in PacBio's Forms 8-K, 10-K, and 10-Q. PacBio disclaims any obligation to update or revise any forward-looking statements, except as required by law.

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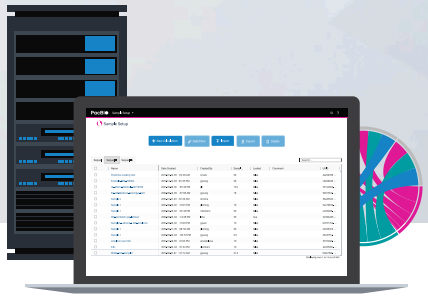
Our mission

Enabling the promise of genomics to better human health

Over a decade of **trusted technology**

Instruments

Consumables



Software/Informatics

~1,200[1]
Cumulative sequencers sold in >40 countries

>$1 billion[1]
In cumulative product /service revenue

~270 customer-facing employees[1]
~410 research + ops

1,000+
Peer-reviewed publications per year

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1. As of 12/31/2023

Key takeaways from today's presentation

2023 exceeded our expectations and sets us up for significant growth potential in 2024 and beyond

Revio is empowering customers to understand the importance of HiFi and driving a long-read data "gold rush"

Onso and its SBB chemistry offer a differentiated short-read sequencing experience and are gaining traction

Interest in PacBio tech and its applications has never been higher than it is today

PacBio remains financially well positioned to execute our plan and invest in growth

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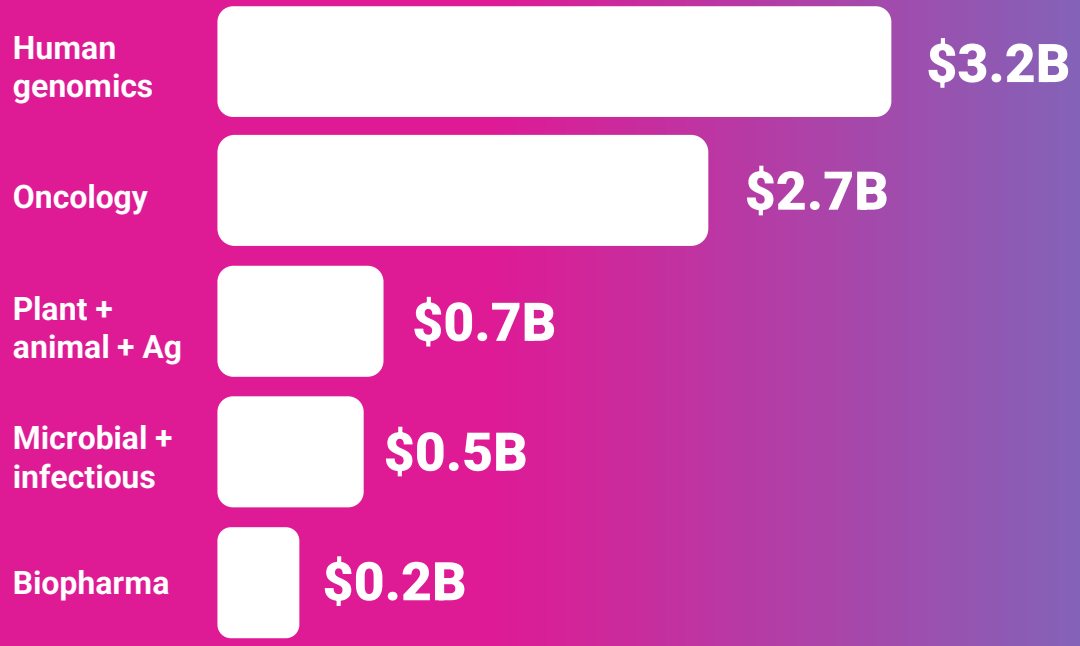
We serve a large market of >$7B today, expected to grow 10 to 15% per year[1]

Approximate market size today[1]



Long- and short-read offerings allow us to reach entire sequencing market with long reads increasing share

1. *Based on internal estimates, peer company disclosures, consensus estimates. Graph not drawn to scale*

Address the breadth of sequencing landscape

HiFi sequencing
Delivers long reads with the highest accuracy[1]
— even in hard-to-sequence regions

SBB sequencing
Promises significant accuracy improvements
over conventional NGS approaches

A portfolio of both short- and long-read systems allows PacBio to offer the best-suited technology in each application for optimal results

- Complex disease research
- Clinical whole genomes
- Plant + animal sciences
- Immunology

- Rare + inherited disease
- Gene editing confirmation
- Infectious disease/microbiology
- Targeted clinical panels

- Therapy selection
- Noninvasive prenatal screening
- Early-stage cancer screening
- Cancer recurrence monitoring

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1. *Based on product comparison as published in Nature Biotechnology (https://doi.org/10.1038/s41587-021-01049-5)*

Revio™

Flexible long-read sequencer

Scale
1,300 human HiFi genomes per year

Affordability
<$1,000 human HiFi genome at 30x coverage

Accuracy
90% of bases Q30+ and median read accuracy Q30+

Ease of use
Simplified consumables and flexible run setup

Compute power
Google DeepConsensus and more on board

Our most scalable and economic long-read platform

Onso™

Mid-range short-read sequencer

Accuracy
90% of bases Q40+

Compatibility
With existing workflows

Support
200+ FTE commercial org with 10+ years of on-market platforms

Future scale
Expedited path to HT via acquisition of Apton

A new standard for sequencing accuracy begins here

HiFi sequencing provides a more complete view of biology

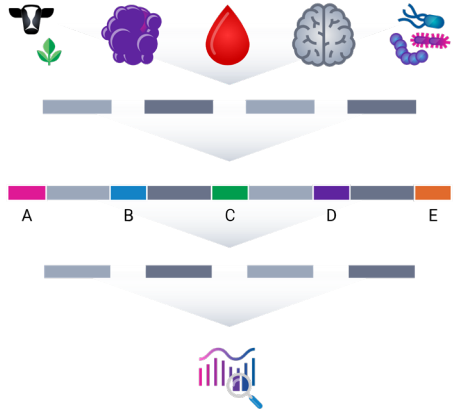
Genomes

Complete and accurate genomes

Access to difficult variants and new genomic regions, which add 119 Mb of sequence to the Human Pangenome reference.

Liao et al. (2023). *Nature* 617, 312–324.

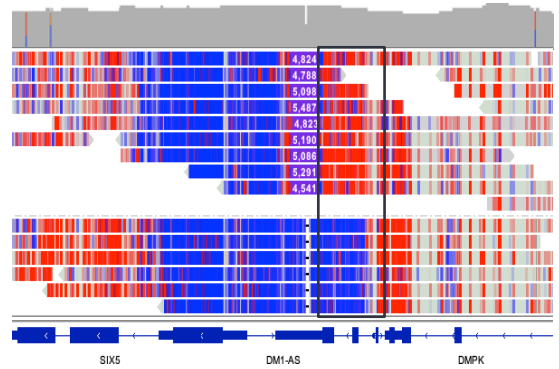
Transcriptomes



Full-length RNA isoforms

Scalable, cost-effective sequencing of RNA isoforms with Kinnex technology

Epigenomes



Directly phased methylomes

5mC detection in standard whole-genome sequencing

Cheung et al. (2023). *Nat Commun.* 14(3090).

Accuracy matters in short-read sequencing

- Sequence less, reduce costs
- Sequence more, achieve greater resolution
- Characterize highly complex regions of the genome
- Higher accuracy = more confidence in discoveries

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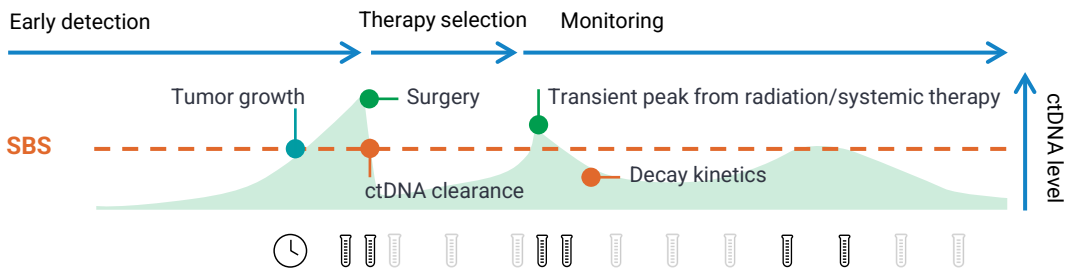
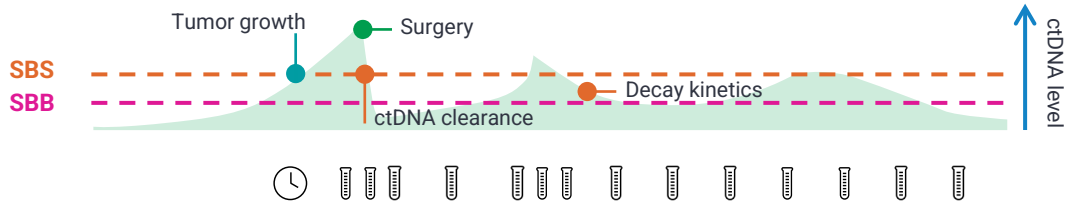
Current sequencing-based liquid biopsy approaches have limited sensitivity



15× increase in accuracy of Onso can mean earlier detection and improved monitoring of cancer[1]



1. Nasko, et al., Improved liquid biopsy assay performance using sequencing by binding (SBB). Presented at the 2023 Early Detection of Cancer Conference, London, UK, October 18, 2023

Onso™ is shipping and customers are getting extraordinary results

QUEEN'S UNIVERSITY BELFAST

"We're pleased with the high accuracy, Q40+ data we've been getting on the Onso platform, which allows us to provide a differentiated sequencing service across a broad range of applications from investigating cell-free DNA to testing environmental samples, such as air, soil, and wastewater."

Dr. Andrew Lee, Senior Research Fellow; QUB's Wastewater Epidemiology research group, School of Biological Sciences.

Ministerio de Salud Pública
Hospital de Especialidades Eugenio Espejo

"We selected Onso for its high accuracy and quality of data, its broad application field, especially in cancer and liquid biopsy, with the possibility of reaching extremely rare variants within a biological sample or a population, taking into account that the Ecuadorian people have been minimally studied from the genetic point of view."

Dr. Gabriela Jaramillo; Quito, Ecuador

>800M PE reads

Q40+ accuracy

For ≥90% of bases

Up to 150 Gb per run

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In 2023, we laid out 5 strategic priorities…

Drive rapid adoption of Revio by converting existing Sequel II/IIe customers + attracting new customers

Expand partnerships across ecosystem + workflow to drive customer adoption of SBB + HiFi

Demonstrate Onso's extraordinary level of accuracy in the field and show how it can transform research in needle-in-haystack applications

Leverage current infrastructure to drive toward positive cash flow

Progress development of ultra-high-throughput + benchtop long-read sequencers + next-generation SBB sequencer

Preliminary financial performance

Highlights commercial execution and continued adoption of long-read sequencing in genomics

$200.5M
Preliminary 2023 revenue[1]

$63.4M
Record consumable revenue in 2023[1]

173
Installed base Revio[1]

$631M
Cash, cash equivalents, + investments[1]

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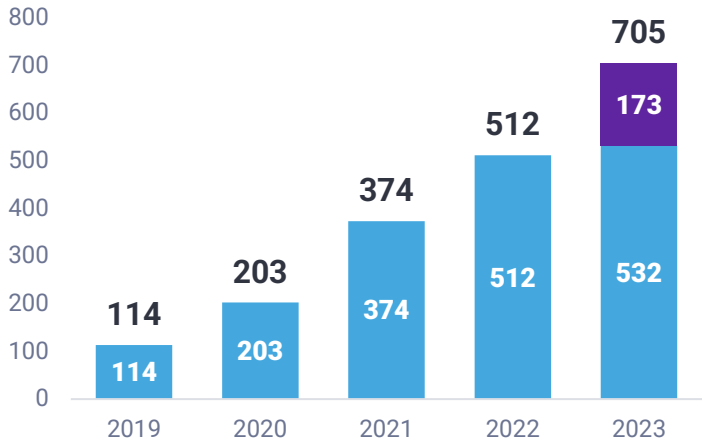
1. Unaudited, preliminary estimate as of or for the period ended 12/31/2023 and subject to change

Revio is accelerating HiFi utilization

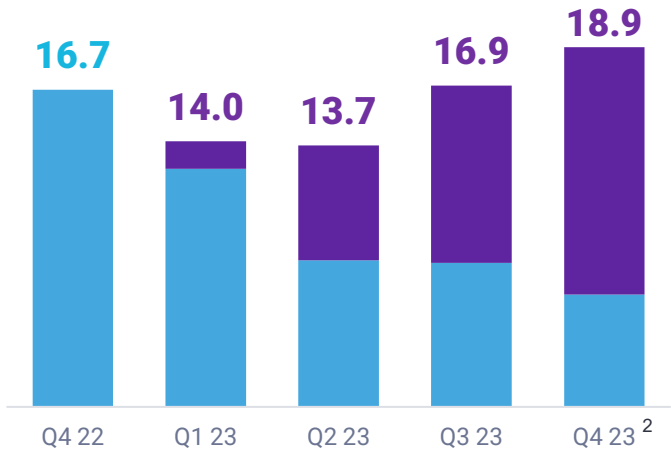
Revio
Sequel II/IIe

Cumulative Revio + Sequel II/IIe shipments[1]



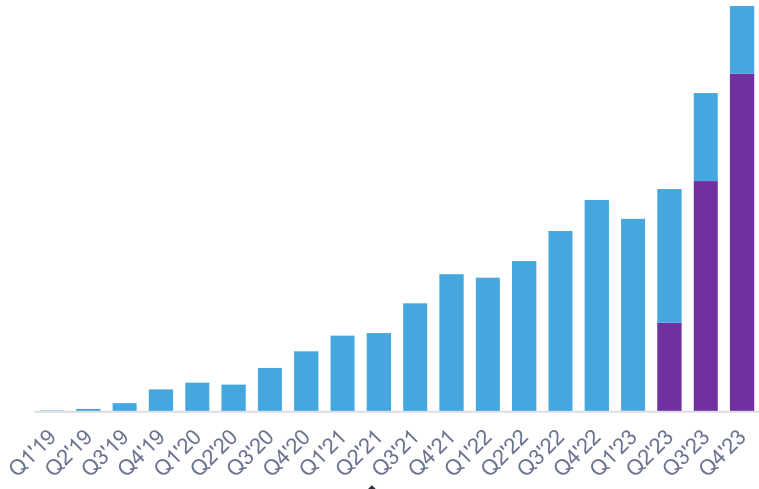
38% Growth in the cumulative installed base in 2023[1]

Consumables revenue ($M)[3]



Revio enabling DD Q/Q and Y/Y consumable growth

Est. total petabase/quarter



68% Growth y/y in data generated from Revio + Sequel II/IIe in 2023

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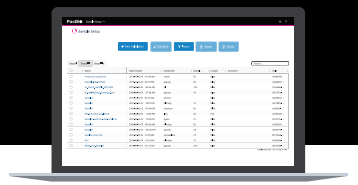
1. *Does not include instrument decommissions*
2. *Unaudited, preliminary estimate as of or for the period ended 12/31/2023 and subject to change*
3. *Sequel II / IIe consumable revenue includes other platform consumable revenue and sample prep in this graph*

Making Revio more robust and accessible to customers

Launched in Q4 2023



V13 Software

- → Adaptive loading
- → Run preview
- → Shorter / longer inserts

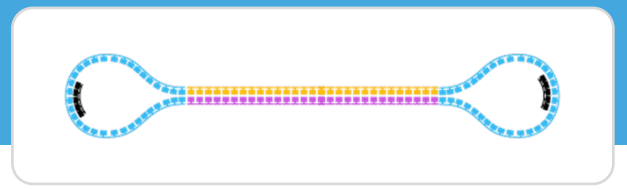
3× Decrease in overloading[1]

Kinnex

- → Scalable, cost-effective RNA sequencing
- → Full-length RNA, single-cell RNA, 16S rRNA

>70 Customers in < 2 months[1]

Shipping anticipated in 1H 2024



High Throughput DNA Prep

Provides fully-automated and scalable solution

Lowers cost of sample prep

Targeted native DNA kit

1-day (8 hr) prep time from DNA to library

Scalable and compatible with automation

Lower DNA input required

1. As of 12/31/2023

Revio is enabling customers to sequence thousands of highly accurate long-read genomes across a wide range of projects

GREGoR consortium

Plans to sequence thousands of genomes utilizing HiFi technology to improve our understanding of genetics in rare disease

PRECISE
Precision Health Research Singapore

Implementing Revio as part of Phase 2 of Singapore's National Precision Medicine Programme, led by Precision Health Research, Singapore (PRECISE)

CORTEVA™ agriscience

High throughput long-read sequencing enables low-pass workflows in Agrigenomics, enhancing and modernizing existing applications

Children's Mercy KANSAS CITY

Revio has enabled a hospital to consolidate tests for genetics and epigenetics, increase efficiency, and improve solve rates while accelerating turnaround time.

BROAD INSTITUTE

Further scaled its Revio fleet in fourth quarter to serve genomics projects throughout the U.S.

Novogene

Increased Revio fleet with an order to 4x its current install base to scale for various national pangenome projects, including several underway throughout Asia.

Strategic priorities for 2024

Increase technology adoption by increasing market share via new customer acquisition, continued Sequel II conversions to Revio, and scaled Onso production

Leverage innovation to complete development of new sequencing platforms and launch on-market system improvements

Build upon clinical momentum by expanding HiFi usage in large-scale programs and translational research projects

Drive towards positive cash flow through gross margin expansion, disciplined operating expense management, and a focus on working capital

Near-term and long-term levers to improve gross margin

1. *Based on preliminary, unaudited revenue estimates as of or for the period ended 12/31/2023 and subject to change*

This is only the beginning…

We're building technologies for both **highly accurate short-read and long-read sequencing** across a range of throughput options

Population scale HiFi

In development

Revio

On market

Benchtop HiFi

In development

Onso

On market

Billions of Q40+ reads

In development

HiFi sequencing — *SBB sequencing*

- **Complex disease research**
- **Clinical whole genomes**
- **Plant + animal sciences**
- **Immunology**

- **Rare + inherited disease**
- **Gene editing confirmation**
- **Infectious disease/microbiology**
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- **Therapy selection**
- **Noninvasive prenatal screening**
- **Early-stage cancer screening**
- **Cancer recurrence monitoring**

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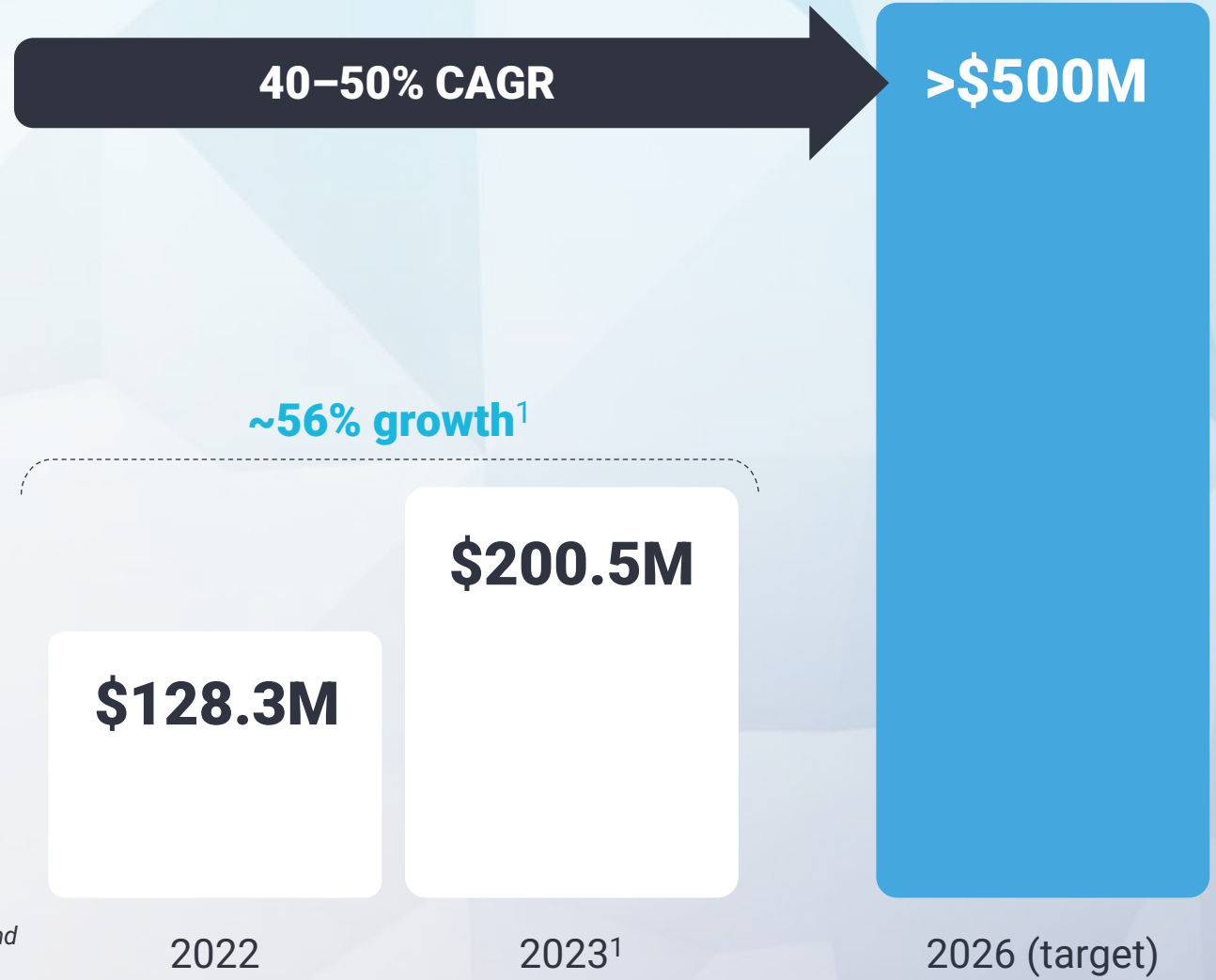
2024

is expected to continue PacBio's goal to achieve >$500M in revenue in 2026

Consumable growth driven by growing Revio installed base and more projects moving to long-read genomes

Continued ramp-up and adoption of Onso short-read platform



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