**PacBi** 

# Pac Bio Apton

Bringing SBB™ to high throughput

**August 2, 2023** 

### Forward-looking statements

This presentation and the accompanying webcast include forwardlooking statements within the meaning of the federal securities laws. All statements, other than statements of historical facts, are forwardlooking statements. Generally, you can identify forward-looking statements by terms such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "targets," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. Forward-looking statements contained in this presentation and the webcast include, but are not limited to, statements about of our acquisition of Apton. including the potential benefits of adding short-read, high-throughput sequencing technologies to our product portfolio and the synergies such technologies may provide with our existing offerings; forthcoming PacBio products or technologies, including the Onso and Apton systems, and their future availability, use cases, performance, and specifications; the size and growth rates of the markets in which we compete, as well as PacBio's evaluations of its market opportunities; our future operating results, including revenue, margins, and expenses, as well as goals and operating plans; and expectations with respect to development and commercialization timeframes. Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors, including, among others, challenges inherent in executing on our acquisition of Apton, including integrating Apton into our organization and achieving the synergies and other benefits anticipated from the acquisition; challenges inherent in developing, manufacturing, launching, marketing and selling new products; and rapidly changing technologies or other developments affecting us and the markets in which we compete. Some of these risks are described in greater detail under the captions "Special Note Regarding Forward- Looking Statements" and "Risk Factors" in our Quarterly Report on Form 10-Q for the guarter ended March 31, 2023, filed with the Securities and Exchange Commission (the "SEC") on May 4, 2023, and in our future filings with the SEC. Our management cannot predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors,

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In addition, forward-looking statements reflect our current beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this presentation and webcast, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information.

Market data and industry and industry information used throughout this presentation are based on management's knowledge of the industry and the good faith estimates of management. We also relied, to the extent available, upon management's review of independent industry surveys and publications and other publicly available information prepared by a number of third-party sources. All of the market data and industry information used in this presentation involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Although we believe that these sources are reliable, we cannot guarantee the accuracy or completeness of this information, and we have not independently verified this information.



# Enabling the promise of genomics to better human health

**PacBio** 

### Apton, at a glance



Pre-commercial company developing a **short-read**, **high throughput** (HT) **sequencing system** 



**Developed advanced optical systems** for sequencing and protein detection



**36 granted patents with 49 pending** covering various aspects of sequencing consumables and instrumentation<sup>1</sup>



Based in Pleasanton, CA, with 30 employees<sup>1</sup> and has raised \$57 million prior to acquisition





# Expect Apton to accelerate our entry into the high throughput, short-read sequencing market



Aligns with our strategy to build a portfolio of sequencing offerings



Onso beta/collabs further substantiated our belief that an SBB-based high throughput solution can differentially address customers' needs



Apton offers innovative and cost-effective high throughput optics



Apton's system has the potential to combine the accuracy of SBB with HT sequencing at a highly competitive price point



Provides a head start in **addressing a growing HT market** of 1,000+ customers with 2,000+ sequencers that spend >\$1M in consumables annually per box



We intend to **quickly integrate Apton's agile** team into our R&D organization



# Apton's technology can offer a high throughput system that is "SBB-ready"

Potential capabilities include:



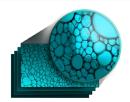
### Clustering and chemistry systems that allow us to achieve extreme densities

DNA nanotechnology allows us to fabricate well-defined nanostructures to overcome spatial challenges with high-density sequencing and protein detection



#### **Advanced HW-SW integration**

Instrument control parameters are meticulously tuned to deliver high-speed imaging generating an unparalleled density of molecular image data.



#### **Advanced image processing**

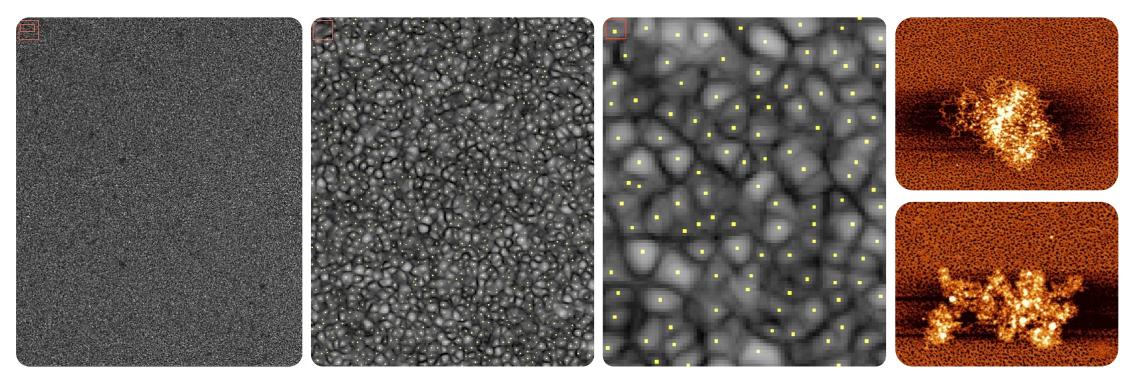
Advanced ML and physics techniques for image transformation allow us to achieve visibility of individual molecules beyond the diffraction-limit



SBB levels of performance demonstrated on Apton system



# Apton's optical system can detect billions of molecules densely packed on the surface at single molecule resolution



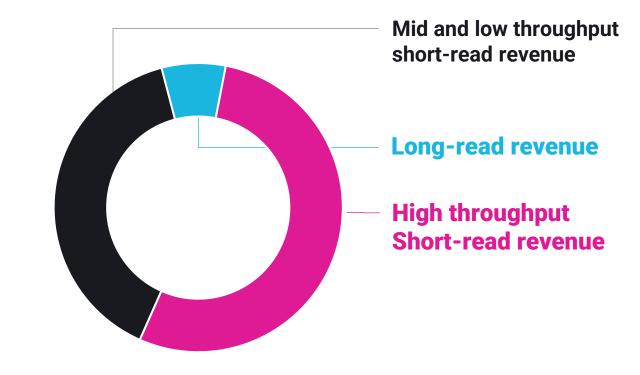
Apton's novel imaging technology optical resolution is 40 nm/pixel with a detection sensitivity of 1 molecule.

AFM Images of Circularized DNA Clusters



The high throughput, short-read customer base is the most significant driver of the multi-billion-dollar sequencing TAM<sup>1</sup>

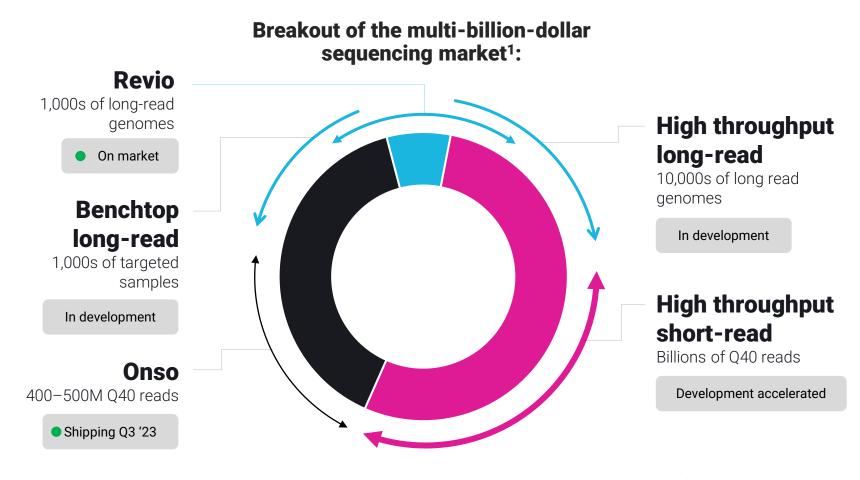
## Breakout of the multi-billion-dollar sequencing market<sup>1</sup>:





## PacBio will have a differentiated ability to address the broad sequencing market with multiple platforms

We continue to expect future
HiFi-based product offerings to expand the long-read revenue opportunity





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



#### HiFi sequencing

Delivers long reads with the highest accuracy<sup>1</sup> – even in hard-to-sequence regions



#### **SBB** sequencing

Promises significant accuracy improvements over conventional NGS approaches

**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** 



## Track record of acquiring differentiated technology and accelerating development

#### **Sep 2021**

Acquired Omniome to bring to market a differentiated shortread sequencing technology

#### 1H 2022

Developed new clustering method enabling higher density, easier workflows, and improved performance



#### 2H 2022

Launched beta program demonstrating Q40+ accuracy



#### 1H 2023

Received first Onso orders, including Revio/Onso bundles



#### Q3 2023

Commercial shipment of Onso instrument < 2 years from acquisition



#### **Aug 2023**

Entered into agreement to acquire Apton to accelerate the development of a high throughput SBB platform



#### OMNIOME

#### •%circulomics

#### **July 2021**

Acquired Circulomics to improve sample extraction and streamline library preparation



#### 2022

Developed high throughput workflows for agrigenomics and microbial genomics in collaboration with Corteva



#### 2022

Collaborated with Hamilton to develop automated high molecular weight DNA sample prep methods



#### 2023

Launched Nanobind HT kits for high throughput extraction for cells and blood to support human genomics



### Onso

Now shipping



**400–500M** Reads



**200 + 300**Cycle kits



**48-hr** Run time



**≥90%**Bases Q40+



### HT SBB

In development\*



**Billions of**Reads



<48 hours

Run time with onboard clustering



≥90%

Bases Q40+



Multiple

low cells per run





#### **PacBi**

### SBB & HiFi offer the best of both worlds

We believe PacBio is the only sequencing company with both highly accurate short-read and long-read technologies



SBB technology

HiFi technology

# Financial details



\$85 million upfront, which consists of ~6.3 million shares



\$25 million milestone (cash or stock at PACB discretion) upon \$50 million in revenue



No change to our long-term OpEx growth target of 5% CAGR through 2026



Accelerated time to market in HT short read further supports our belief in 40-50% revenue CAGR through 2026



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