illumina®

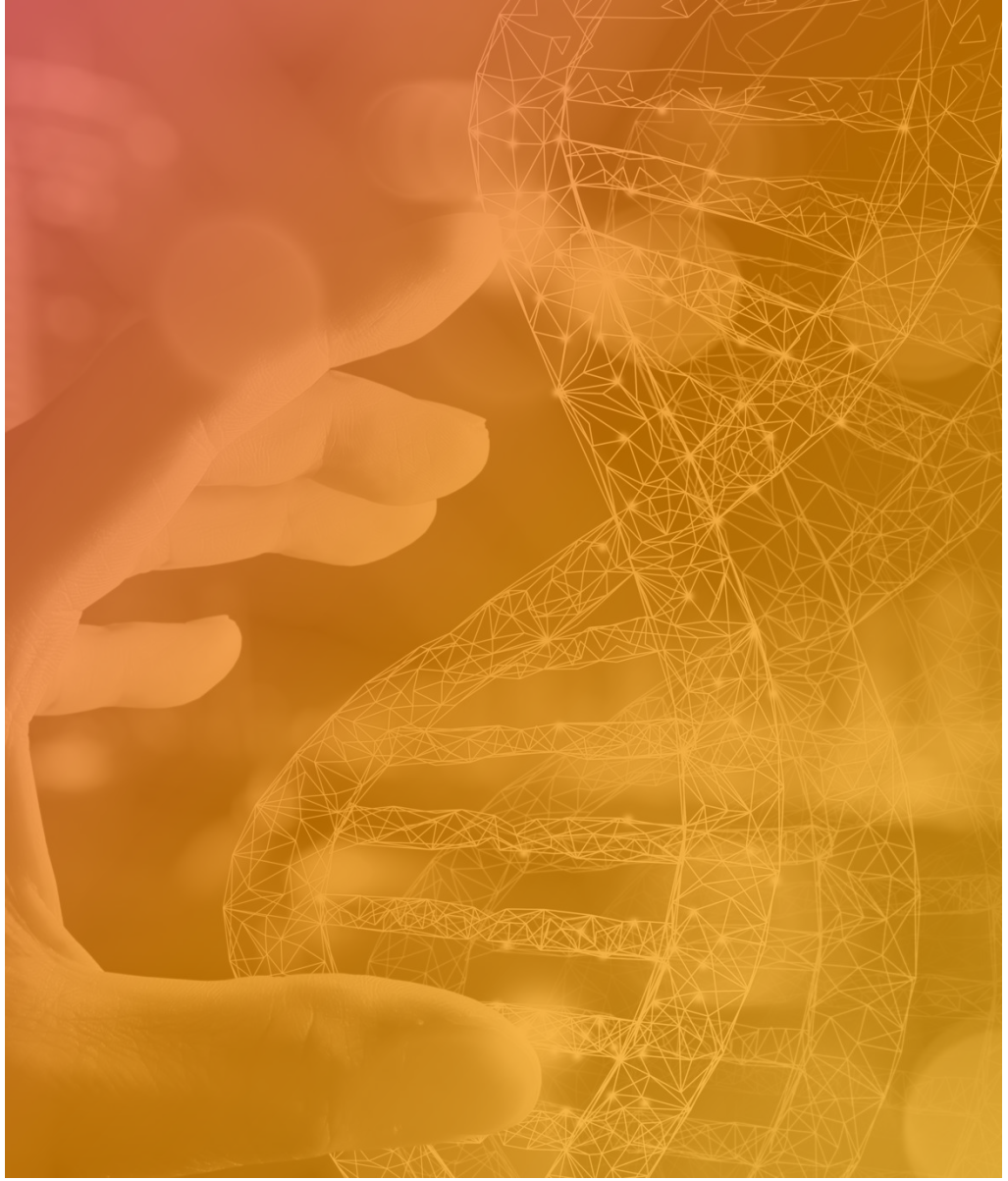
INVESTOR DAY 2022

OCTOBER 3 | SAN DIEGO, CA

Welcome and Opening Remarks

Salli Schwartz

VP of Investor Relations



Cautionary Notes on Forward Looking Statements

This release may contain forward-looking statements that involve risks and uncertainties. Among the important factors to which our business is subject that could cause actual results to differ materially from those in any forward-looking statements are: (i) challenges inherent in developing, manufacturing, and launching new products and services, (ii) our ability to further develop and commercialize our instruments, consumables, and products, including Galleri, the cancer screening test developed by GRAIL; (iii) the European Commission's recent prohibition of our acquisition of GRAIL and the interim measures imposed upon us that prohibit our integration of GRAIL; (iv) the risk that disruptions from the consummation of our acquisition of GRAIL or any associated legal or regulatory proceedings or obligations will harm our business, including current plans and operations; (vi) our ability to successfully partner with other companies and organizations to develop new products, expand markets, and grow our business, (vii) the impact to our business and operating results of the COVID-19 pandemic and other macroeconomic factors, together with other factors detailed in our filings with the Securities and Exchange Commission, including our most recent filings on Forms 10-K and 10-Q, or in information disclosed in public conference calls, the date and time of which are released beforehand. We undertake no obligation, and do not intend, to update these forward-looking statements, to review or confirm analysts' expectations, or to provide interim reports or updates on the progress of the current quarter.

Note Regarding GRAIL

The European Commission adopted an order on September 6, 2022, prohibiting Illumina's acquisition of GRAIL. We intend to appeal the Commission's decision. The Commission previously adopted an order requiring Illumina and GRAIL to be held and operated as distinct and separate entities for an interim period. Compliance with the order is monitored by an independent Monitoring Trustee. During this period, Illumina and GRAIL are not permitted to share confidential business information unless legally required, and GRAIL must be run independently, exclusively in the best interests of GRAIL. Commercial interactions between the two companies must be undertaken at arm's length.

Today's Agenda

8:00 AM **Welcome and Opening Remarks**
SALLI SCHWARTZ
VP, Investor Relations

Vision and Growth Strategy
FRANCIS DESOUZA
CEO

Innovation Roadmap
ALEX ARAVANIS, MD/PhD
Chief Technology Officer, Head of Research and Product Development

Clinical Markets Update
PHIL FEBBO, MD
Chief Medical Officer

~9:45 AM **Break**

~10:00 AM **Commercial Update**
SUSAN TOUSI
Chief Commercial Officer

Long-term Financial Outlook
JOYDEEP GOSWAMI, PhD
Chief Strategy and Corporate Development Officer, Interim CFO

Closing Remarks
FRANCIS DESOUZA
CEO

~11:00 AM **Q&A Session**

ESG is Core to Illumina's Business

Expand Access to Genomics

- Expanding adoption since 1998
- Catalyze startups

Empower Communities

- Build tomorrow's STEM workforce and empower educators
- Invest in critical infrastructure

Integrate Sustainability

- Net Zero emissions by 2050
- Launch most sustainable sequencer

Nurture People

- Maintain zero net pay gap
- Build global workforce, currently 10,300 employees strong, to represent our communities

Operate Responsibly

- Inspire confidence as most trusted in privacy and ethics
- Invest in diverse suppliers

RECENT ACCOLADES

Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA

Bloomberg Gender-Equality Index 2022

Forbes 2021 WORLD'S BEST EMPLOYERS

Forbes 2021 WORLD'S TOP FEMALE FRIENDLY COMPANIES

BEST FOR VETS EMPLOYERS 2021 MILITARY TIMES

FAST COMPANY Most Innovative Companies 2022

FORTUNE CHANGE THE WORLD 2021

TIME 100 MOST INFLUENTIAL COMPANIES 2021

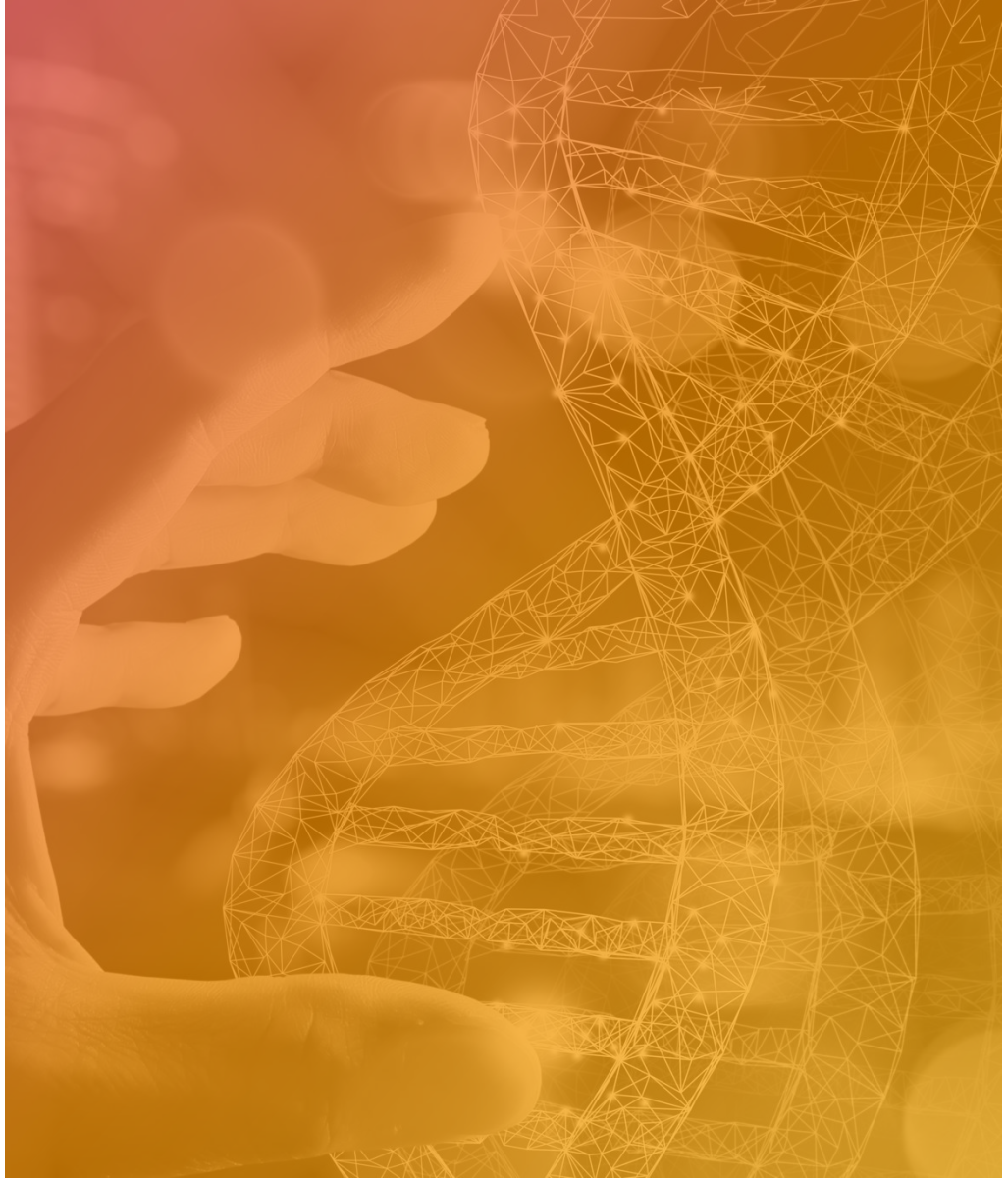
JUST COMPANIES AMERICA'S MOST CNBC 2022

Illumina ESG Virtual Investor Event Scheduled for Q2 2023

Vision and Growth Strategy

Francis deSouza

Chief Executive Officer



Key Messages

01 We are **early in penetration** of a $120B NGS market opportunity

02 Our strategy is to **deliver market leading platforms** and **select tests** to **penetrate markets** and **catalyze new opportunities**

03 Our powerful **innovation flywheel** is our key competitive advantage for **continued market leadership**

04 We will drive our mission forward with **talent that built the NGS industry** and a **world-class leadership team**

05 We are set up to **deliver superior shareholder value** through continued strong revenue growth and expanding margins

The Leader in Research and Clinical Genomics Driven by Technology Innovation

MISSION

IMPROVING HUMAN HEALTH BY UNLOCKING THE POWER OF THE GENOME

>9,100 Customers	**>1,000** Person Clinical Organization	**$885M** Invested in R&D[1] Last Year
150 Countries	**>1B** Covered Lives Globally	**>8,450** Patents Worldwide
>21K Installed Base of Sequencing Systems	**72** Approvals from 58 Regulatory Agencies	**>300K** Publications

[1] FY21 R&D expense for Core Illumina.

Genomics Will Transform Lifetime Health Management, Improve Outcomes, and Lower Costs

Newborn Assessment

Disease Screening

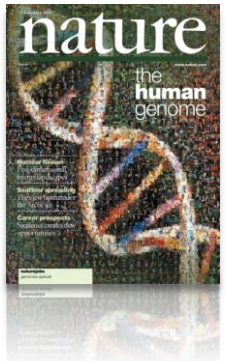
Early + Accurate Diagnosis

Therapy Selection

Effectiveness Monitoring

Recurrence Monitoring

Realizing This Vision Requires Biological Discoveries Then Translating Them into Clinical Tests and Therapies



1988 – 2003

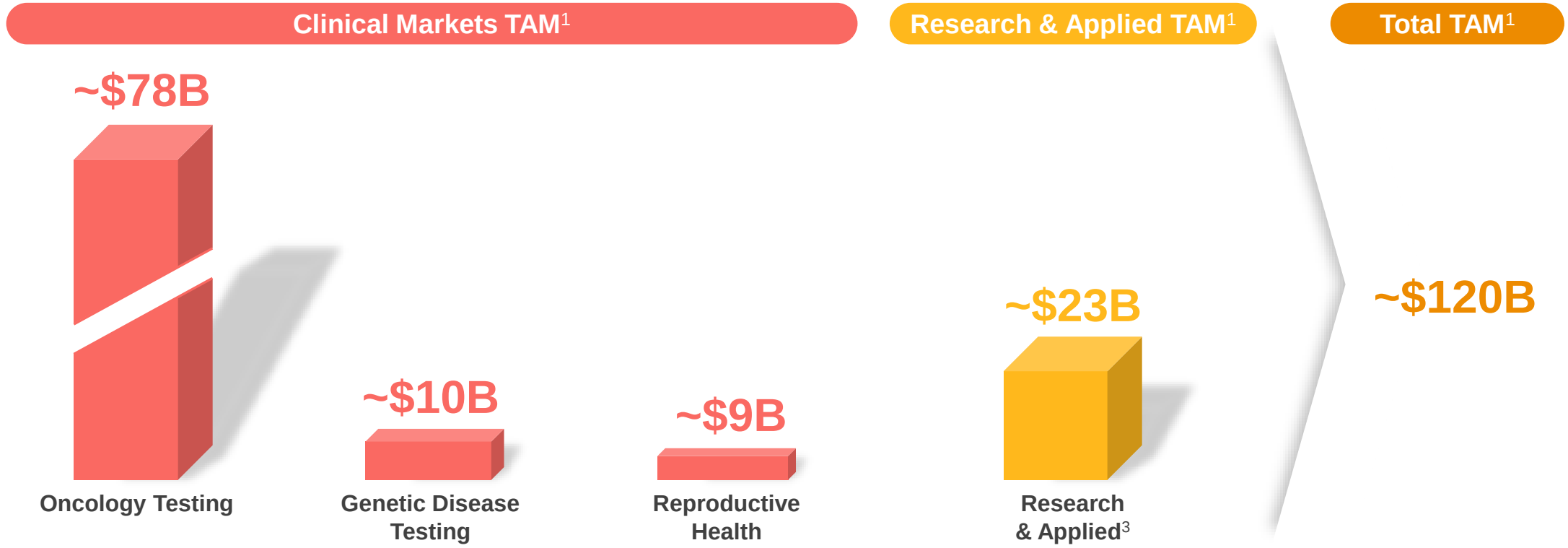
~$5B

~$20B

~$120B

	2005	2014		2027	
RESEARCH	Genetic Disease Microbiology Genotyping	Cancer Research Cell & Molecular Biology	WGS / WES Genetic Disease	Single Cell	Spatial Drug Discovery Proteomics
TRANSLATIONAL / EARLY CLINICAL		Therapy Selection		PRS Infectious Disease Testing Early Screening (Oncology)	Newborn Screening WES / WGS / WTS Oncology Monitoring
CLINICAL STANDARD OF CARE		NIPT RUGD		MRD (Heme) Therapy Selection (CGP)	NIPT RUGD (WGS)

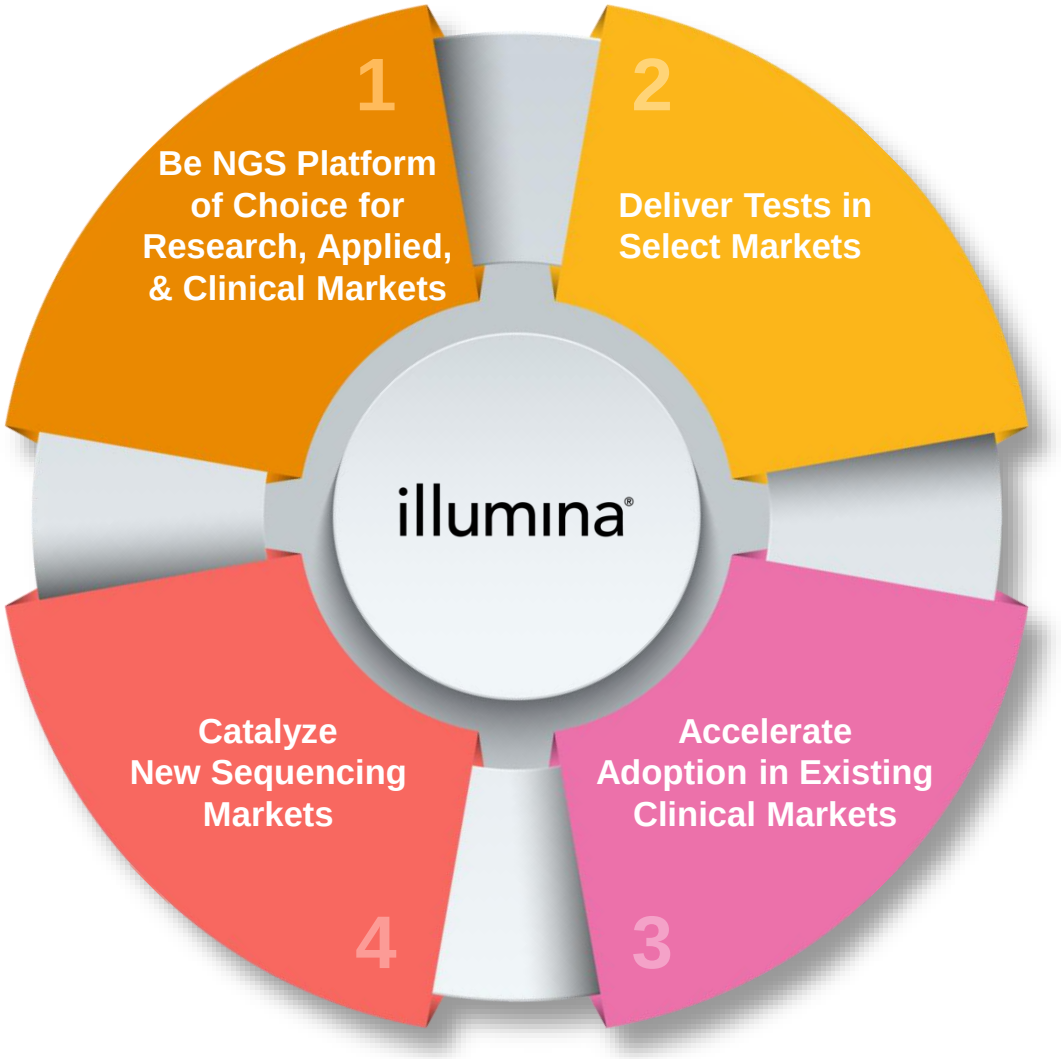
We are Still Early in Market Penetration



	Oncology Testing	Genetic Disease Testing	Reproductive Health	Research & Applied[3]	Total
2022 NGS Penetration[2]	2%	8%	8%	26%	7%
2027 NGS Penetration[2]	8%	16%	12%	34%	14%

[1] Denotes 2027E Total Addressable Market; [2] NGS SAM % of TAM; [3] Other Research & Applied markets include infectious disease testing, consumer genomics, genetic disease research, cancer research, cell & molecular biology, microbiology, and agrigenomics.

Our Strategy



Our Strategy

Technology innovation

- Price
- Throughput
- Turn around time

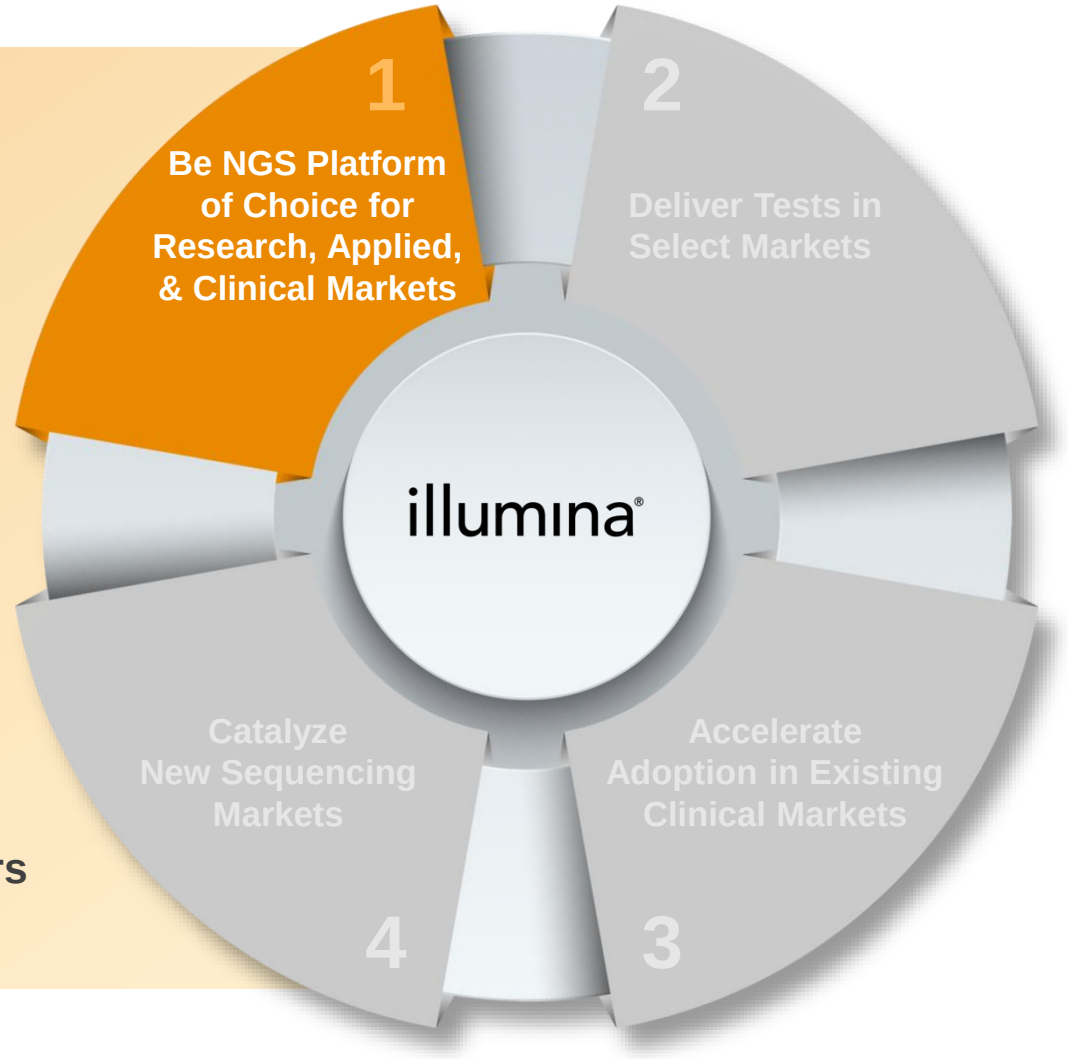
Workflow expansion

- Bioinformatics and analysis
- Library prep

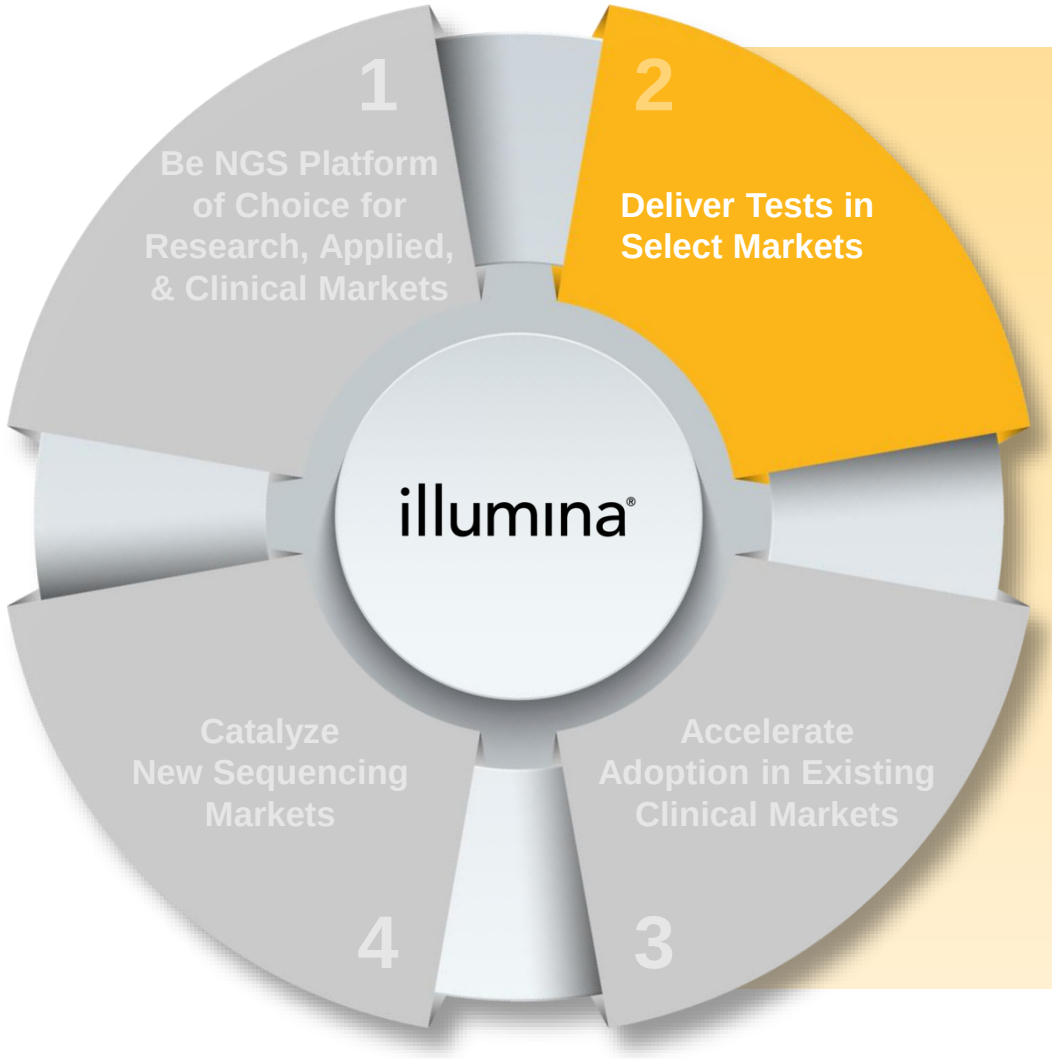
Access

- Automation
- Ease of use
- Elimination of cold chain

Open platform for clinical partners



Our Strategy



Criteria

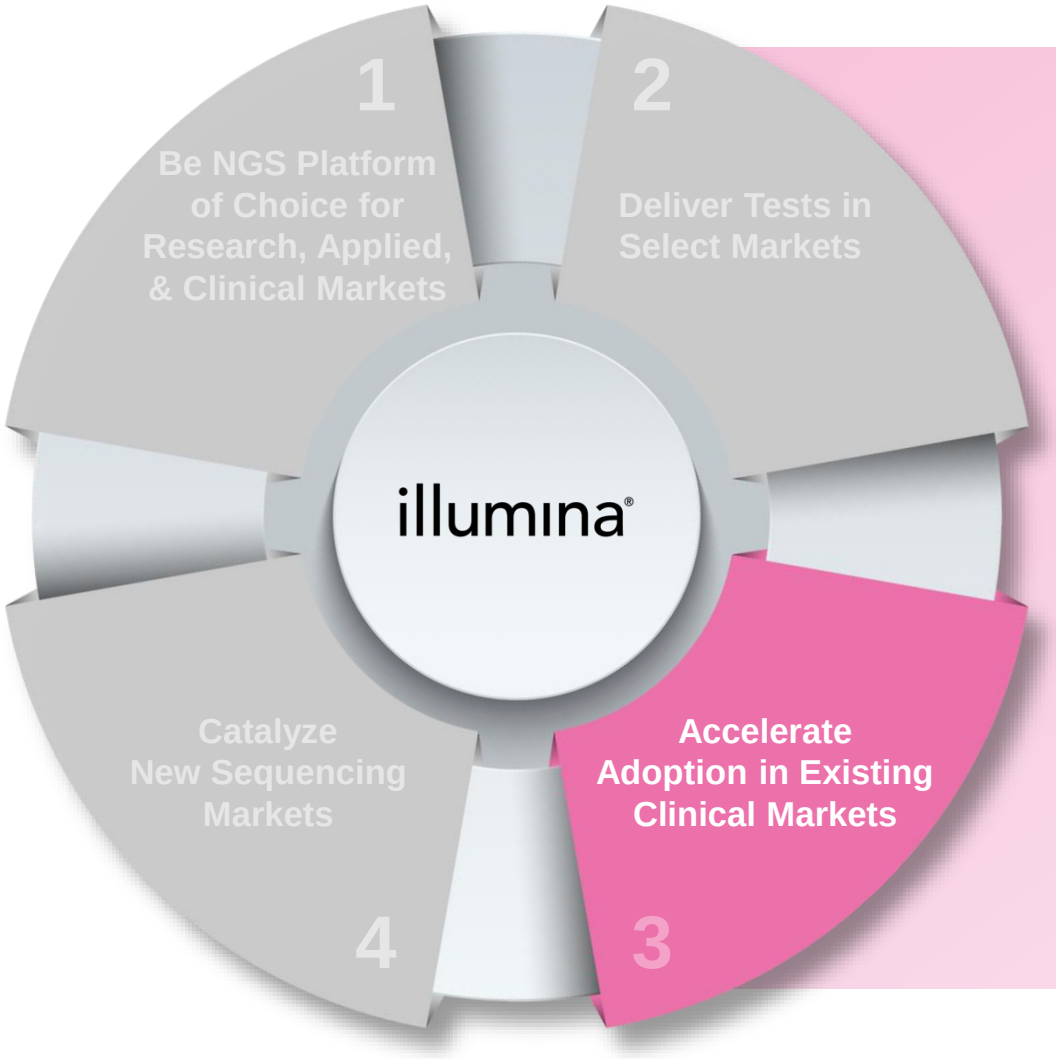
- Large market with high growth potential
- Proprietary content / differentiation
- Internal knowledge and expertise
- Clear synergies across multiple dimensions
- Ability to influence and accelerate adoption

Markets

- NIPT
- Cancer Therapy Selection
- Screening

Note: GRAIL is being held and operated separately in accordance with an order adopted by the European Commission.

Our Strategy

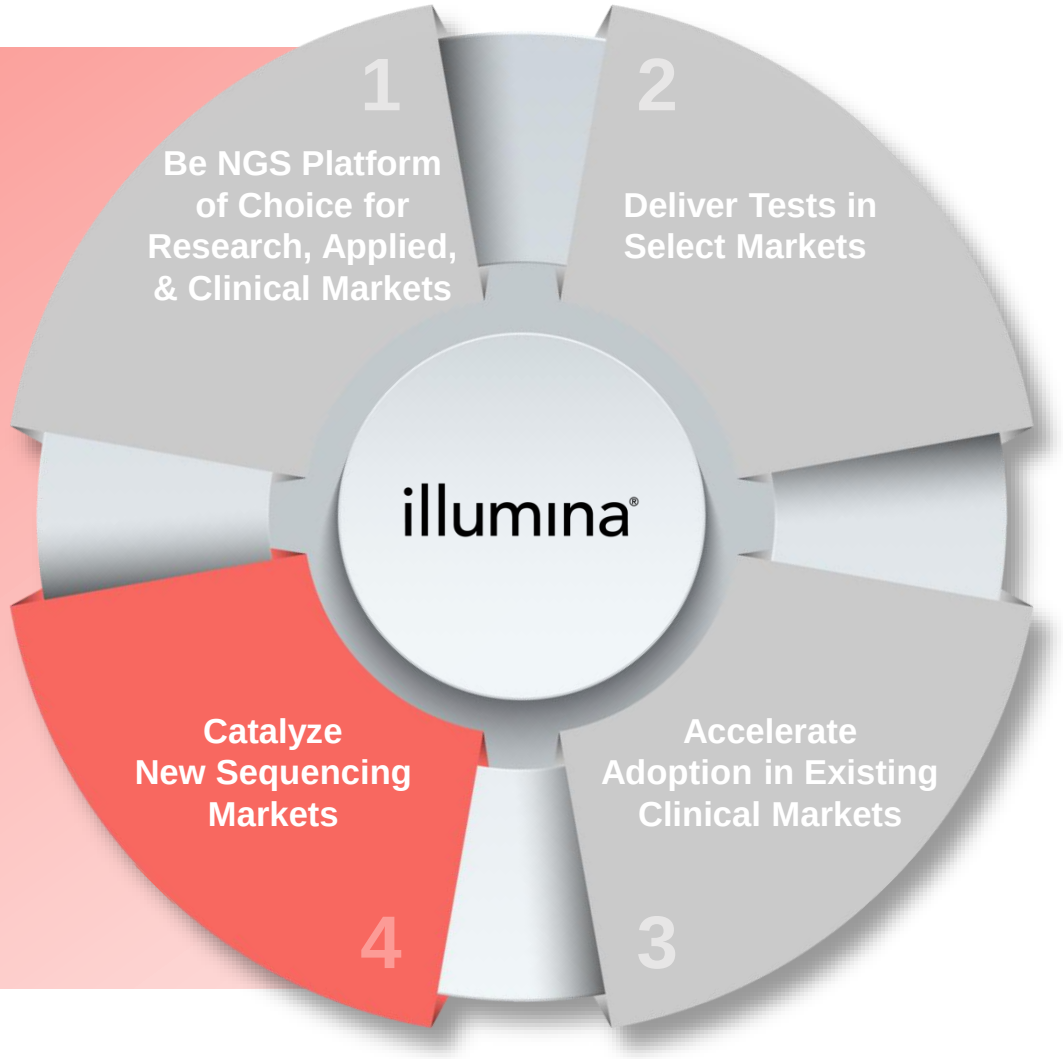


- Evidence generation for clinical utility
- Global strategic evidence projects
- Grow reimbursement for NGS
- Regulatory approvals

Our Strategy

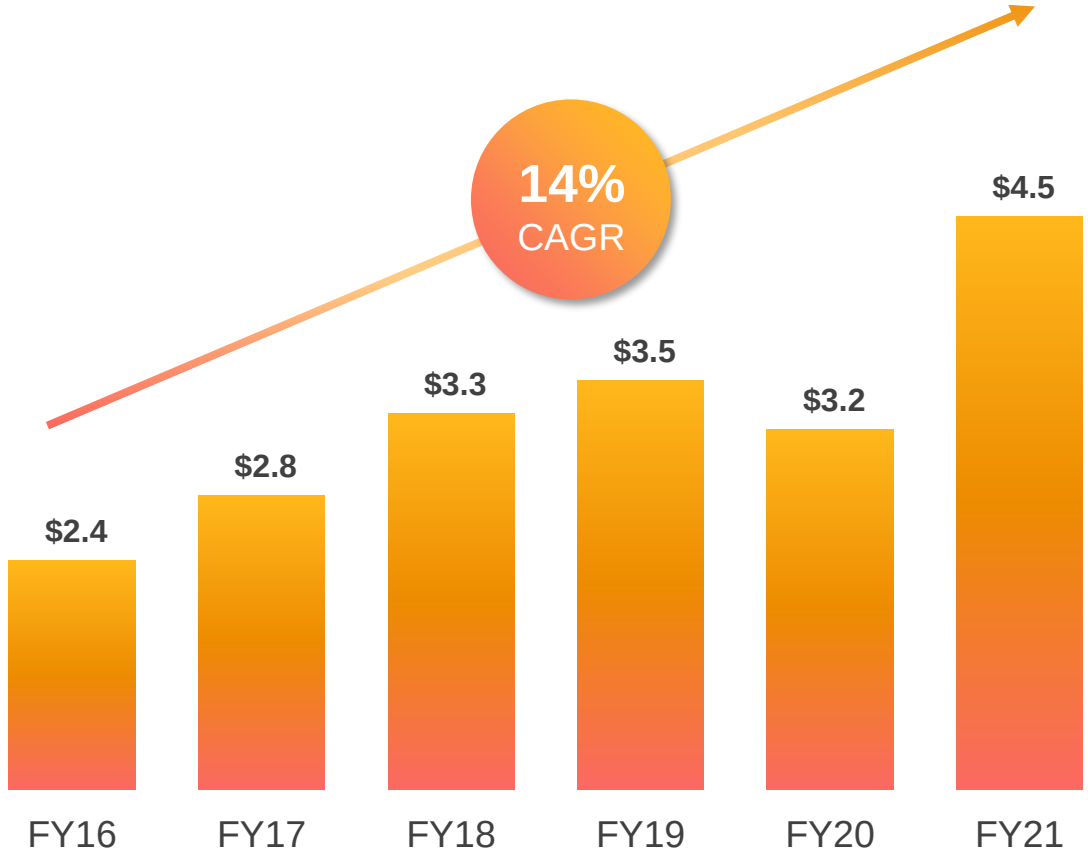
Examples

- Drug Discovery
- Proteomics
- Cardiovascular Disease
- Neurological Disease

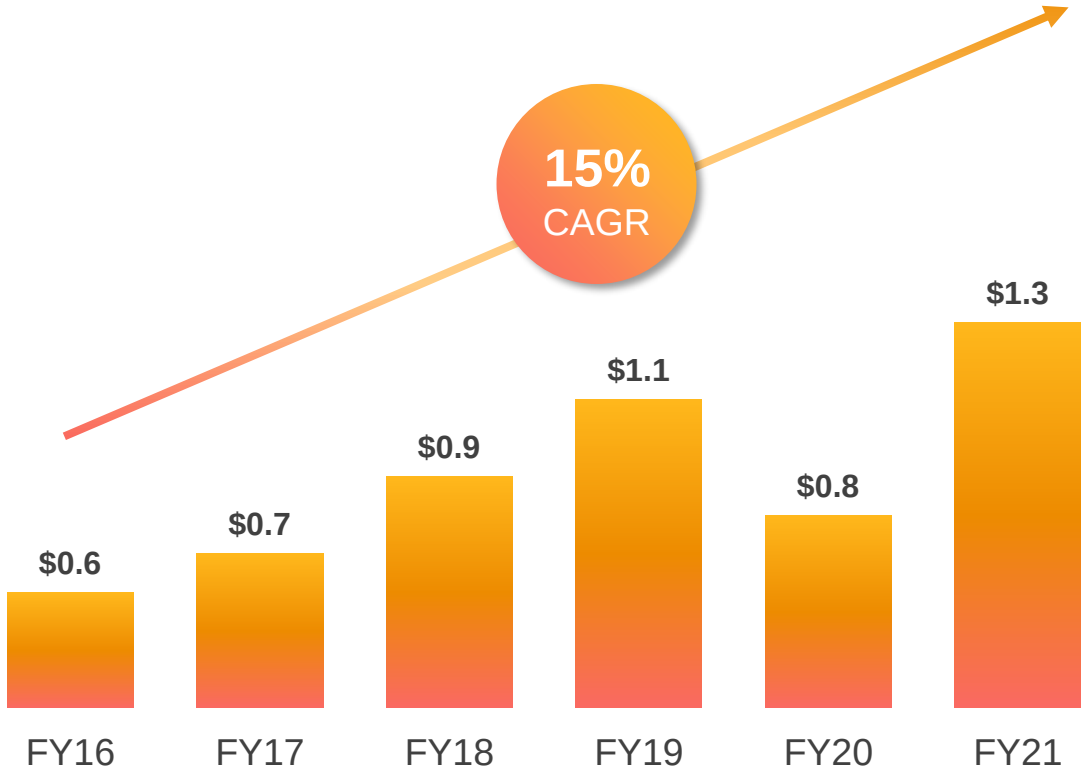


Proven Track Record of Revenue Growth & Operating Leverage

CORE ILLUMINA REVENUE ($B)

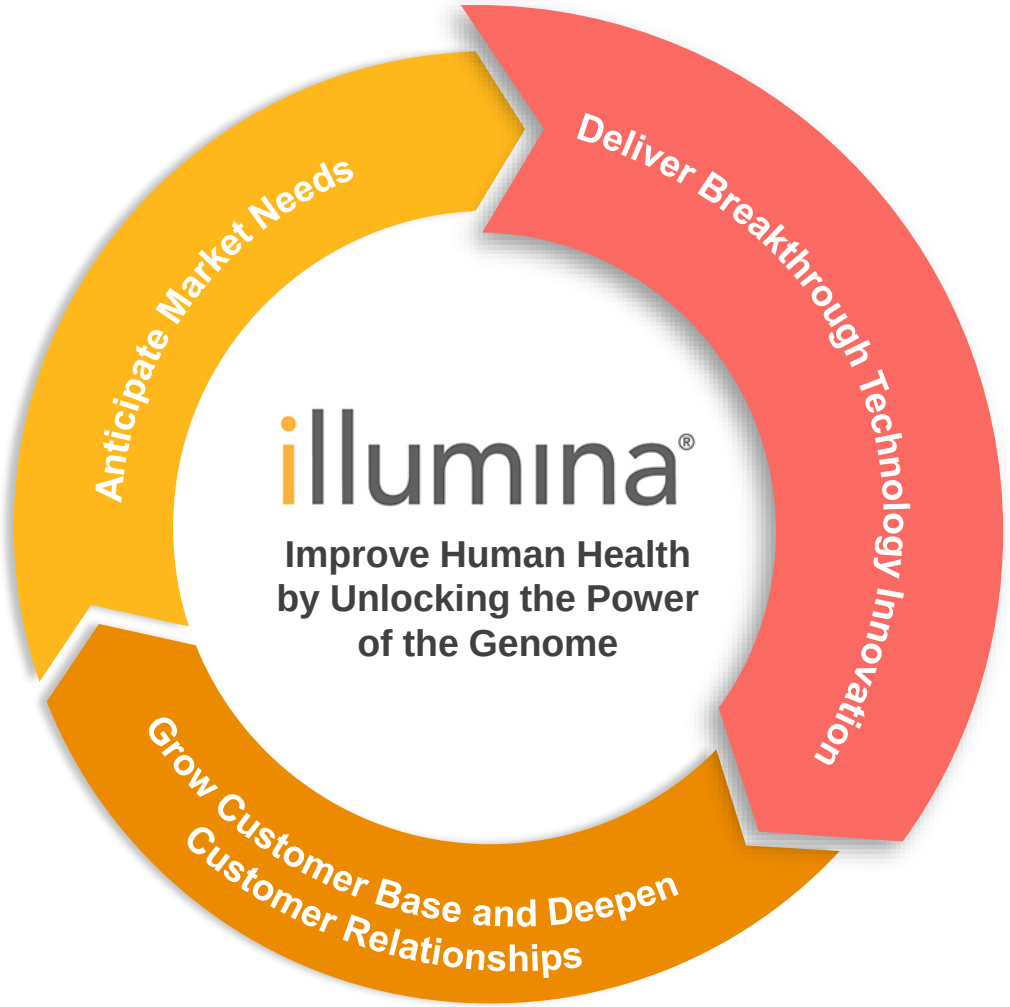


CORE ILLUMINA OPERATING PROFIT ($B)



Note: Operating Profit denotes non-GAAP metric. See Appendix for reconciliation.

Our Innovation Flywheel Fuels Long-term Growth



Deliver Breakthrough Technology Innovation

- Broaden customer diversity and NGS usage
- Enable new discoveries and applications

Grow Customer Base and Deepen Customer Relationships

- Serve >9,100 customers across 150 countries, up ~45% since January 2019
- Drive global population studies

Anticipate Market Needs

- Early look on new applications and future customer needs

Experienced and Diversified Board of Directors

John Thompson ○
Chairman of the Board, Illumina;
Former CEO, Virtual Instruments

Frances Arnold, PhD[1] □ △
Professor of Chemical Engineering,
Bioengineering & Biochemistry
at Caltech

Francis deSouza
President & CEO

Caroline Dorsa ○ ◇
Former EVP & CFO,
Public Service Enterprise Group

Robert Epstein, MD △ ◇
Former President & Chief R&D Officer,
Medco-UBC

Scott Gottlieb, MD △
Former Commissioner,
U.S. FDA

Gary Guthart, PhD □ ◇
President & CEO,
Intuitive Surgical

Philip Schiller □ △
Apple Fellow,
Apple

Sue Siegel ○
Former Chief Innovation Officer & CEO,
GE Ventures

Independent Board Chair	**2** Independent Directors with Public Company CEO Experience	**6** Independent Directors with Healthcare Experience[2]	**5.5 Years** Average Board Tenure	**>50%** Demographic Diversity

Note: Orange fill denotes Committee Chair; ○ Audit □ Science & Technology △ Nominating & Corporate Governance ◇ Compensation

[1] Received Nobel Prize in Chemistry (2018) for pioneering directed enzyme evolution; [2] Includes Directors with industry experience across Genomics, Life Sciences and Healthcare sectors.

World-class Thought Leaders in the Genomics Sequencing Ecosystem

Francis deSouza
President and CEO

Dr. Alex Aravanis, MD, PhD
CTO, Head of Research and Product Development

Dr. Phil Febbo, MD
Chief Medical Officer

Susan Tousi
Chief Commercial Officer

Dr. Joydeep Goswami, PhD
Chief Strategy and Corp. Dev. Officer, Interim CFO

John Frank
Chief Public Affairs Officer

Aimee Hoyt
Chief People Officer

Kathryne Reeves
Chief Marketing Officer

Charles Dadswell
General Counsel

Kevin Pegels
Chief of Global Operations

Carissa Rollins
Chief Information Officer

~75%
Multi Industry Experience

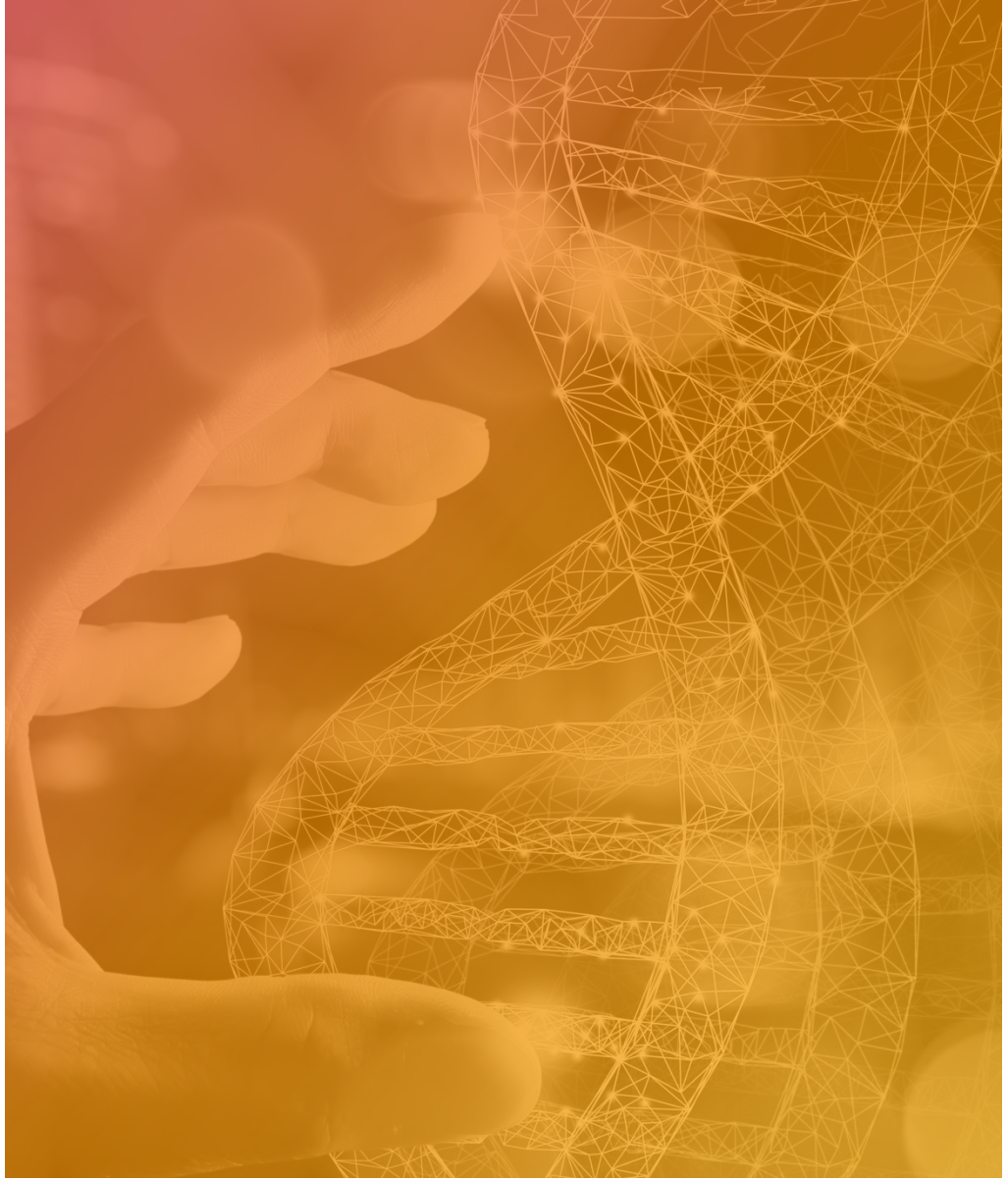
>80%
Executives with Large Public Company Scaling Expertise

~60%
Ethnic and Gender Diversity

Innovation Roadmap

Alex Aravanis, MD, PhD

Chief Technology Officer,
Head of Research and Product Development



Key Messages

01 Spurred genomic revolution by **innovating to reduce sequencing cost, broadening genomic access**, and **unlocking new frontiers in biology** including an ever-expanding ecosystem of clinical applications

02 Innovations enabled by **unmatched R&D leadership** not only in products, but also publications, patents, IP, talent, and skillsets

03 Delivered the **most transformative portfolio of products** in company's history at Illumina Genomics Forum with **next 5-10 years of innovation in progress**

04 Continue to lead by **delivering hard-to-replicate product portfolio** that delivers complete sample to insight solutions including the best platforms with the most comprehensive view of the genome

05 **Maximizing ROI** in core technology platforms by leveraging modular architectures across multiple platforms, reducing launch cycle times, and maintaining performance leadership

Global Leadership Position and World-class Talent Are Differentiators and Have Built Our Industry

GLOBAL LEADERSHIP POSITION

Uniquely positioned with the richest insights in the field

>9,100
Customers

>21,000
Sequencing Systems Installed (as of Q2 2022)

150
Countries

>280Pb[1]
Data Generated on ILMN Sequencers (2021)

KEY STATS: INNOVATION GROUP

Core R&D Team	~2,200	Invention Disclosures	~400 This Year
Publications	>300K	Patents Issued Worldwide	>1,000 This Year

- Continue to attract and retain industry's best and brightest
- Diverse talent drives diversity of thought and approach
- Scale and quality of innovation outmatches industry

[1] Equivalent to >2.3M whole genomes assuming 120Gb for 30x genome.

To Serve Our Diverse Customer Base We Must Innovate to…

1

Enhance value beyond cost per Gb

Continue to drive down cost of sequencing while redefining new gold standard by delivering value beyond price per gigabase (Gb) across the throughput spectrum

2

Deliver the most complete genomic view

3

Build integrated multiomic workflows

4

Deliver end-to-end solutions

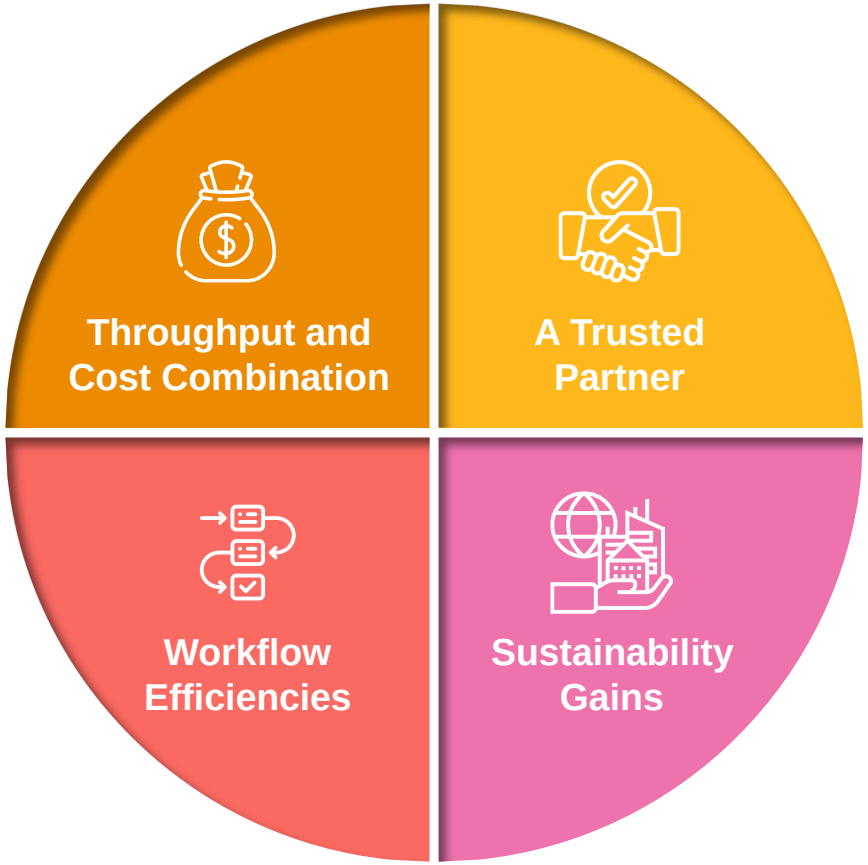
NovaSeq X™ Delivers Substantial Value Beyond $/Gb

Bigger projects, faster than ever

- Maximum power, throughput, and flexibility of scale
- Significant cost savings per Gb enabling access to more, deeper studies
- Built in secondary analysis

Maximize customer ROI and minimize resource needs

- Unrivaled operational simplicity
- Productivity gains – ease of use, less labor / hands on time, integrated analysis, and file conversion
- Decrease TAT – complete projects as quickly and efficiently as possible



Proven technology, most widely adopted and utilized technology

- Unrivaled application breadth
- Broadest ecosystem of library prep / analysis
- Best-in-class support – local, in language, 24/7

Sequence more sustainably than ever

- Remarkable reduction in plastic / packaging size waste and weight
- Ambient shipping – no dry ice or ice packs
- Recyclable plastics

Many Years of Innovation Enable New Industry Standard

NovaSeq X

Ultra High Density
Flow Cell

Advanced Base
Calling Algorithms

Custom High-Speed
Camera Sensor

X-LEAP SBS
Ambient Shipped and
Lyophilized Reagents

Accelerated,
Fully Automated
on-Instrument Analysis

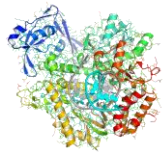
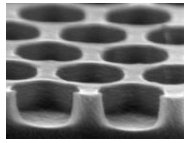
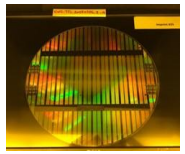
Ultra High
Numerical Aperture,
Blue-Green Optics

Groundbreaking Sustainability Delivered with X-LEAP SBS

- Ambient shipped, lyophilized reagents – no dry ice
- 90% reduction in packaging weight and waste
- Over 50% reduction in plastic mass
- Use of biopolymer and more recyclable plastics
- Over 50% reduction in cartridge volume to minimize freezer space

Investing in Big Innovations That Can Be Leveraged Across Products

Technology Leverage Accelerates Product Cycle Times and Maintains Performance Leadership

	**X-Leap SBS**	The world's fastest, highest quality, most robust, and sustainable SBS chemistry ever
	**Density**	Increases to flow cell nanowell cluster density enables more genomes per run
	**COGs Reduction**	300mm wafer with nanoimprint lithography; enables 2x flow cell per wafer and automated manufacturing lines
	**Imaging**	Ultra-high numerical aperture optics delivering increased resolution and sensitivity
	**DRAGEN**	Most accurate whole genome analysis, faster alignment and variant calling irrespective of graph size

X-LEAP SBS on NextSeq 1000/2000 Will Unlock Next Level of Scale and Cost Efficiency, Enhancing System Value

X-LEAP SBS Enabled in 2024

LEVERAGING TECHNOLOGY MODULES

Higher Density
Flow Cell[1] (500Gb)

X-LEAP SBS speed, quality, and robustness

Accelerated, Fully Automated on-Instrument DRAGEN Analysis

P4 Flow Cell

1.7B / up to 500Gb

Advanced Signal Processing

Super Resolution, Blue-Green Optics

[1] Leverages NovaSeqX 25B flow cell innovation; flow cell enabled by X-LEAP SBS.

Continued Expansion of NextSeq™ 1000/2000 Platforms in 2022

NEW

NextSeq 1000/2000
P1 Flow Cell

60Gb

100M

Max Output

100/300/600 Cycles

NextSeq 1000/2000
P2 Flow Cell

120Gb

400M

Max Output

100/200/300 Cycles

NextSeq 2000
P3 Flow Cell

360Gb

1.2B

Max Output

50/100/200/300 Cycles

Innovations Deliver Unprecedented, Scalable Throughput with First IVD Compliant High-throughput System

NovaSeq 6000 Dx

LEVERAGING TECHNOLOGY MODULES

Streamlined user interface and workflow with Illumina Run Manager

Paired DRAGEN server enabled for RUO and Dx applications

Fast and accurate secondary analysis and variant calling

Leverages NovaSeq 6000 Architecture

Dual mode for IVD and RUO

Simultaneous sequencing while performing secondary analysis

Run two flow cells simultaneously

Committed to Delivering Differentiated IVD Sequencing Solutions to Accelerate Expansion into Clinical Markets

The first IVD-compliant high-throughput sequencing instrument for the clinical lab

- More Samples
- Greater Depth
- Reduced Cost / Gb

MiSeq™ Dx	
Output	Up to 5Gb
Reads per Run[1]	Up to 15 million
Run Time	< 24 hours
Samples per Run[2]	8 to 96

NextSeq™ 550Dx	
Output	Up to 90Gb
Reads per Run[1]	Up to 300 million
Run Time	< 35 hours
Samples per Run[2]	8 to 96

NovaSeq™ 6000Dx	
Output	Up to 3Tb
Reads per Run[1]	Up to 20 billion
Run Time	< 44 hours
Samples per Run[2]	8 to 192

[1] Single-end reads validated; [2] All sample throughputs are estimates and are assay dependent.

To Serve Our Diverse Customer Base We Must Innovate to…

1

Enhance value beyond cost per Gb

2

Deliver the most complete genomic view

Continuous improvement of the ILMN genome by expanding on the raw output of our instruments

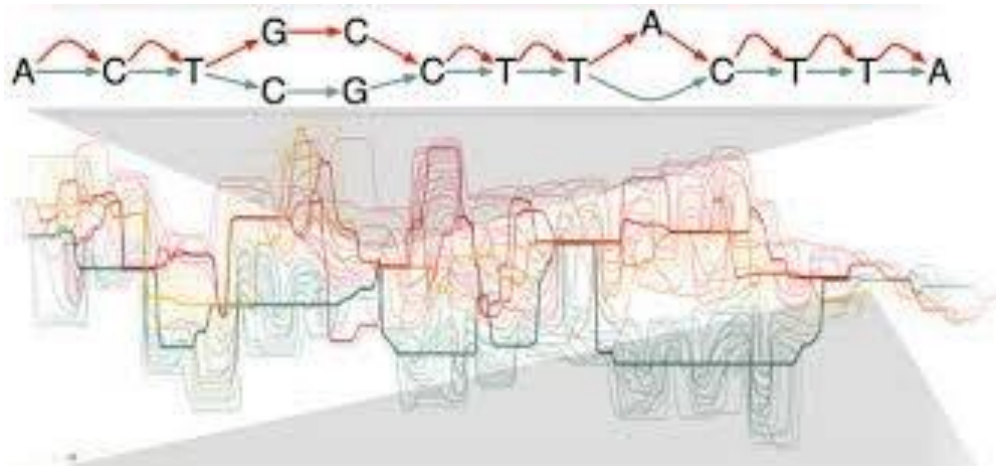
3

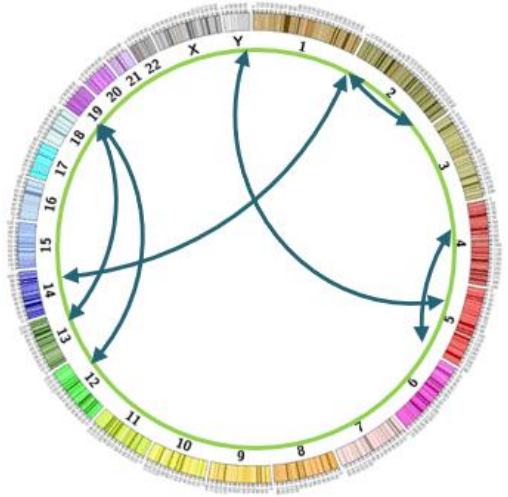
Build integrated multiomic workflows

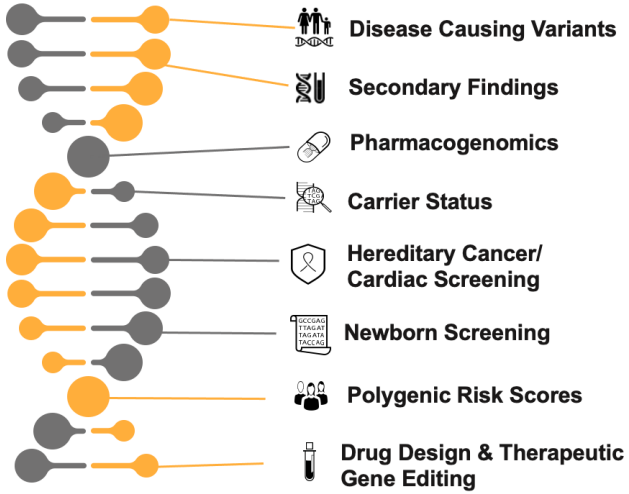
4

Deliver end-to-end solutions

A More Complete View of the Genome in Coverage, Accuracy, and Variant Detection Drives Utility







Highest Quality and Coverage Omics Data

More Complete Coverage

More Variant Types Across the -omes

Medically-relevant Calls

Shifting from Data to Insights, Driving Genomic Utility Faster

>280Pb[1]

Produced on Illumina Sequencers in 2021…

Increasing Every Year

Call to Action

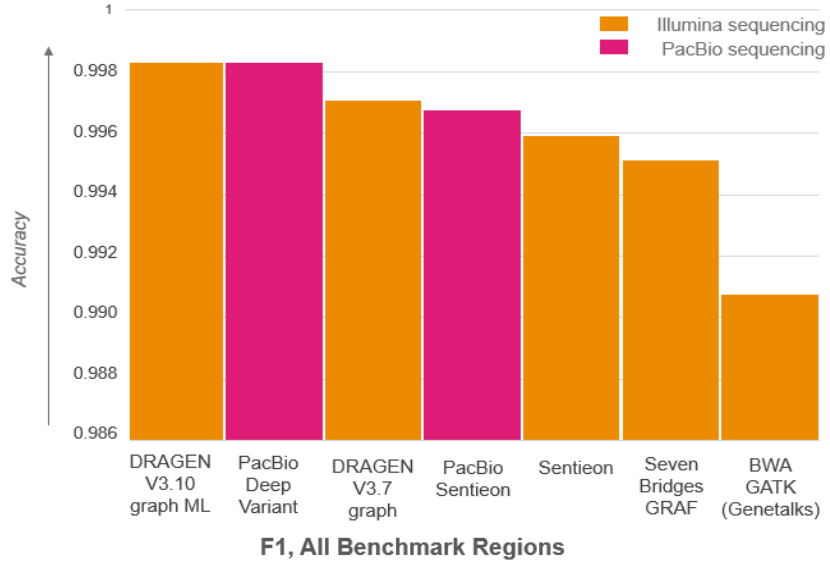
Deliver Fastest, Most Accurate, and Cost-effective Insights from Sequencing Data

[1] Equivalent to >2.3M whole genomes assuming 120Gb for 30x genome.

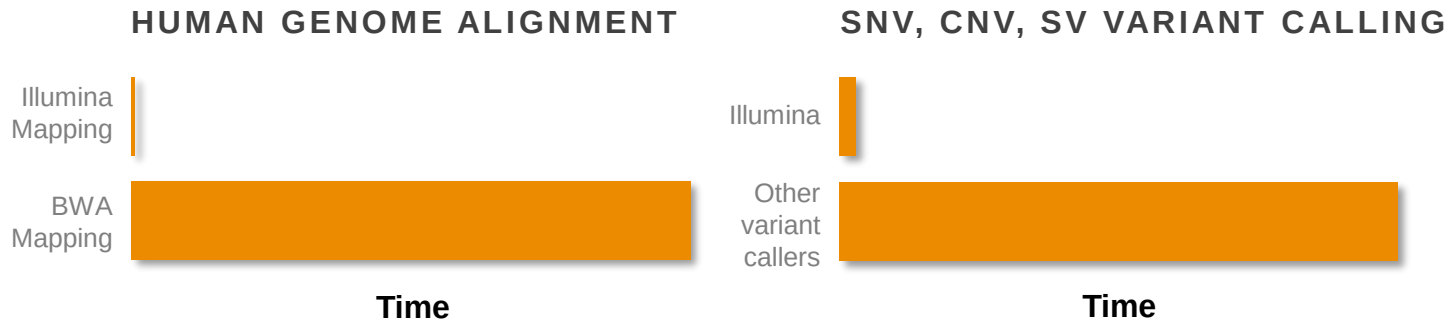
Machine Learning and DRAGEN Graph Technology Enable the Fastest, Lowest Cost, and Most Accurate Genome Ever

Library Prep → **Sequencing** → **Secondary Analysis DRAGEN 4.0** → **Tertiary Analysis and Reporting**

99.83% Accuracy Score in Precision FDA Truth Challenge

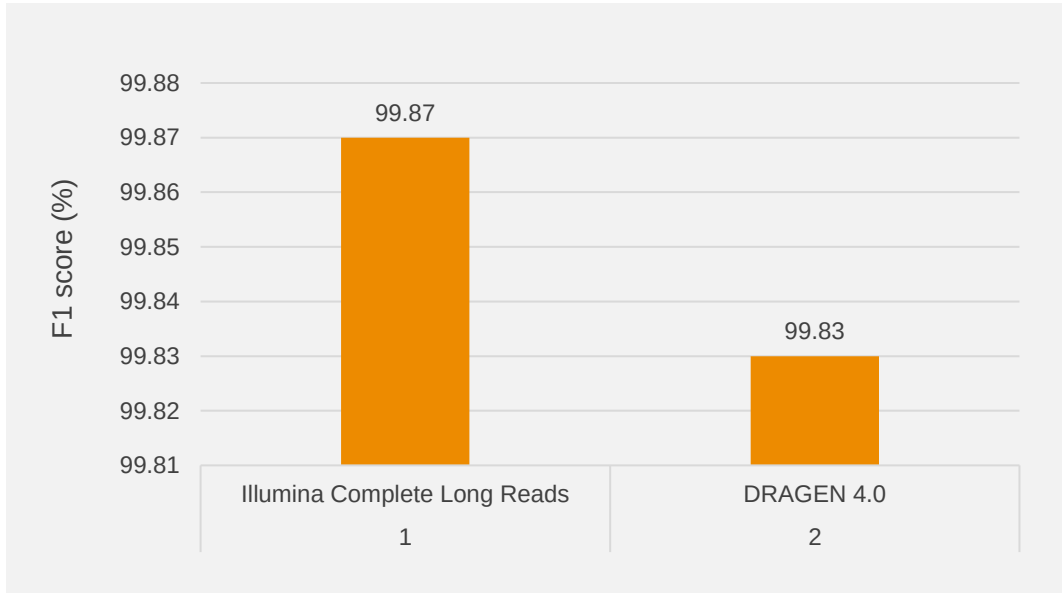


40× Faster Alignment and Variant Calling Irrespective of Graph Size



Illumina Complete Long Reads Delivers the World's First Sequencers Capable of Long and Short Reads – with the Highest Accuracy

Most Accurate	Complete Whole Genomes Per Year	Simple Workflow	Lowest DNA Input
#1 with 99.87% accuracy in Precision FDA dataset	>3,000 with Illumina Complete Long Read >10,000 Illumina Long Read Enrichment	Automatable, single day library preparation	90% less than current long read technology



99.87%

Accuracy in Precision FDA Dataset

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Deliver the most complete genomic view

3

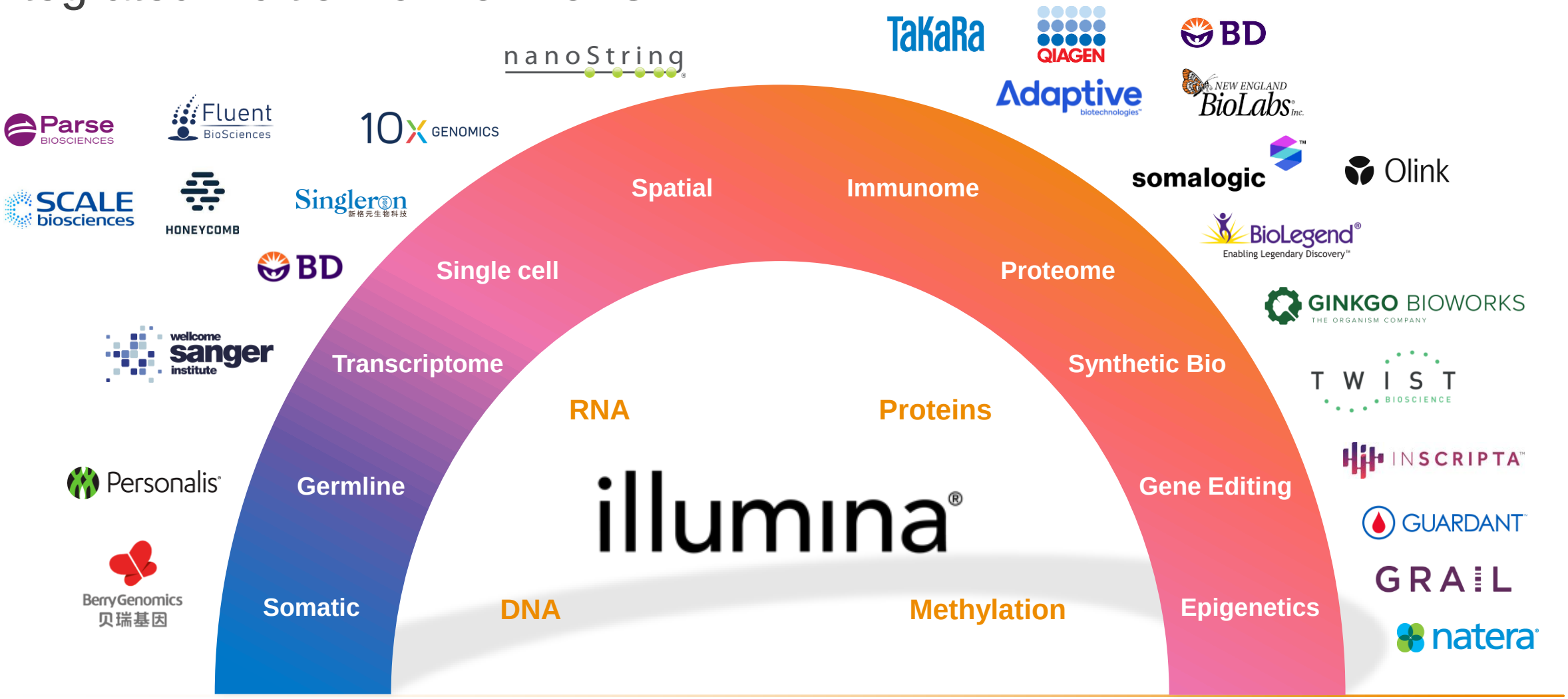
Build integrated multiomic workflows

Deliver greatest application breadth for low-, mid-, and high-throughput segments with true multiomic capabilities

4

Deliver end-to-end solutions

Expanding What Customers Can Do on Instruments by Building Integrated Multiomic Workflows



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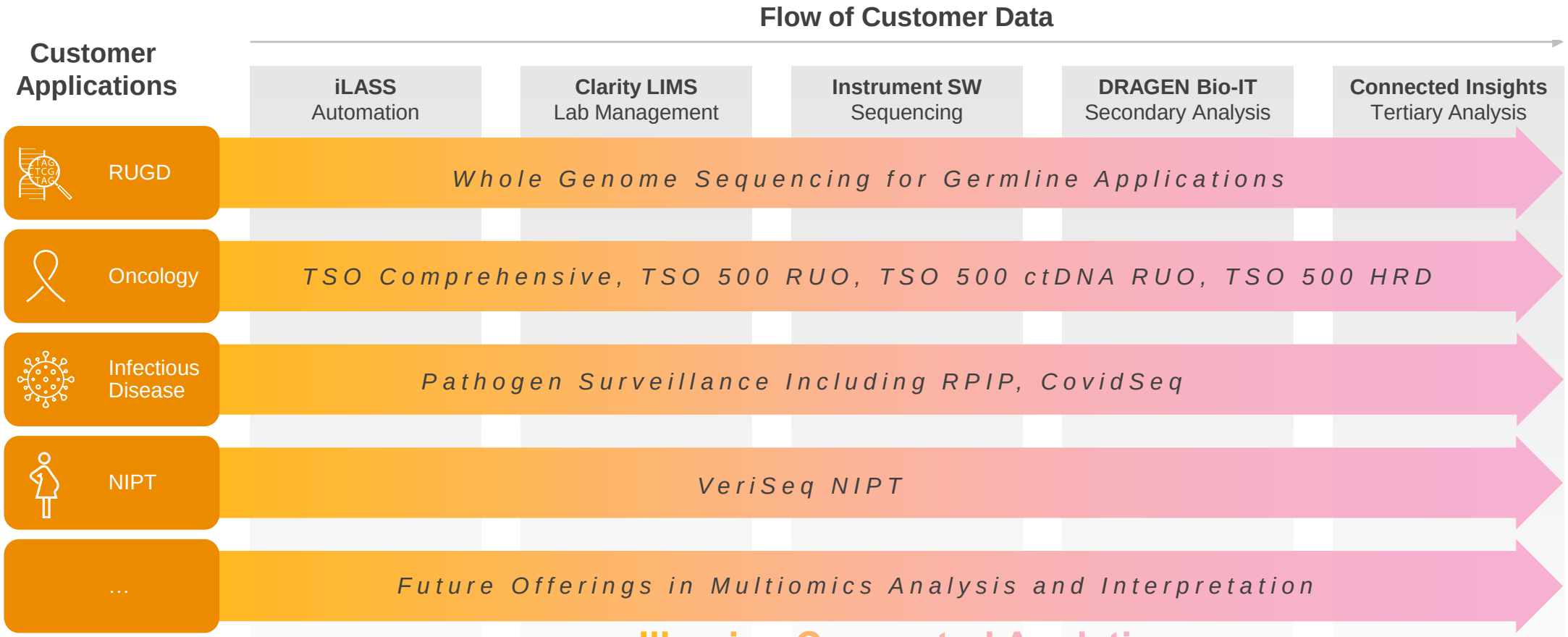
4

Deliver end-to-end solutions

Highest data quality and most flexible clinical sequencing; simple and streamlined workflows with end-to-end solutions inclusive of upstream library preparation and downstream analysis for high value applications

Technology Stack Enables Complete Sample-to-Insight Solutions



>2,600 Customers Use Our End-to-End Solution Across >100 Countries

Note: Customer and countries data as of September 2022.

Key Takeaways

1. Spurred genomic revolution by **innovating to reduce sequencing cost, broadening genomic access**, and **unlocking new frontiers in biology** including an ever-expanding ecosystem of clinical applications

2. Innovations enabled by **unmatched R&D leadership** not only in products, but also publications, patents, IP, talent, and skillsets

3. Delivered the **most transformative portfolio of products** in company's history at Illumina Genomics Forum with **next 5-10 years of innovation in progress**

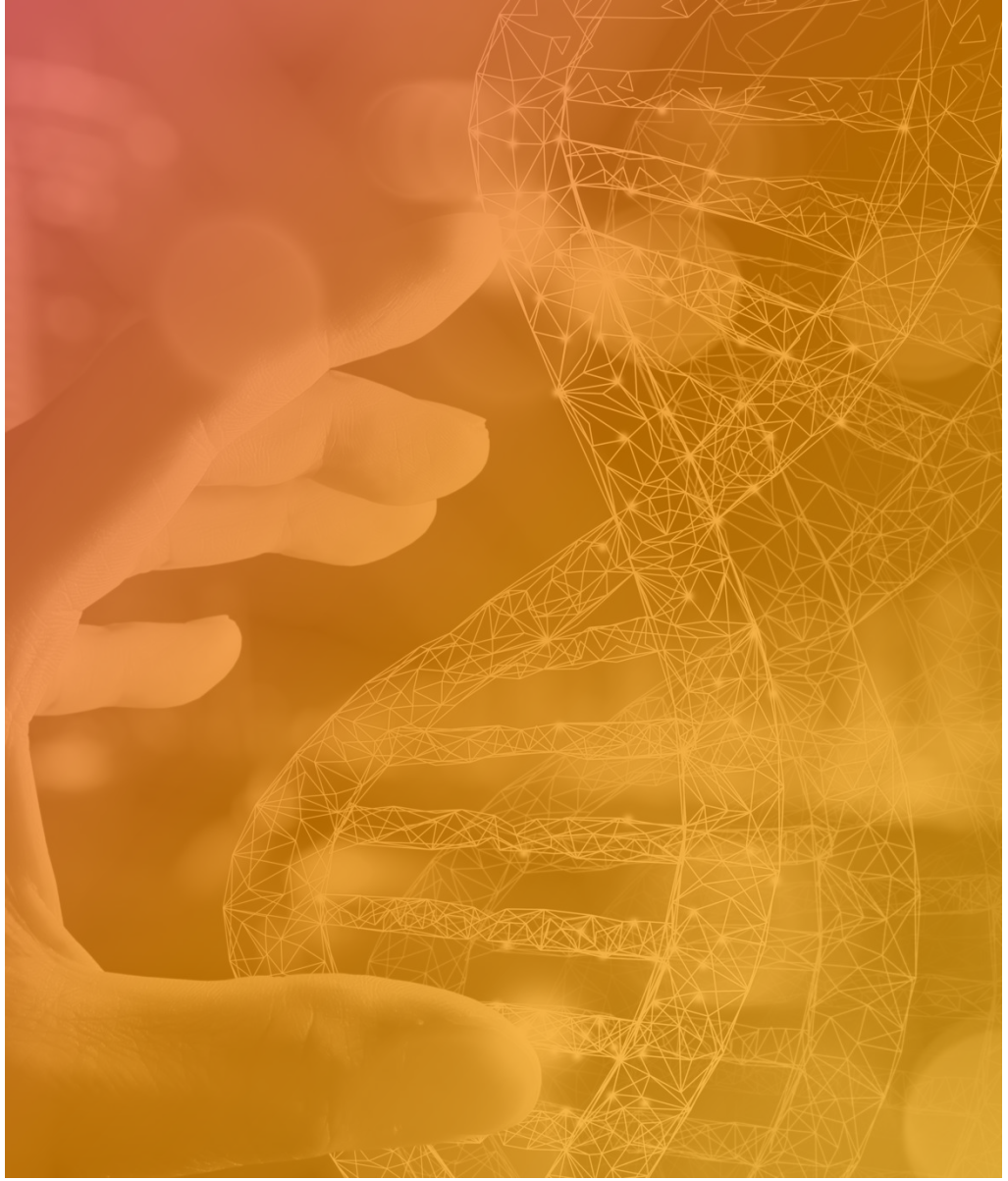
4. Continue to lead by **delivering hard-to-replicate product portfolio** that delivers complete sample to insight solutions including the best platforms with the most comprehensive view of the genome

5. **Maximizing ROI** in core technology platforms by leveraging modular architectures across multiple platforms, reducing launch cycle times, and maintaining performance leadership

Clinical Markets Update

Phil Febbo, MD

Chief Medical Officer



Key Messages

01 Our proven **clinical playbook allows us to catalyze and accelerate** clinical markets globally

02 **Investments over time have built an unmatched clinical team and infrastructure** that make us a partner of choice for clinical customers worldwide

03 As sequencing becomes more integral to healthcare, we are **uniquely positioned to serve multiple clinical segments** as they benefit from **novel Dx solutions** and **price / innovation driven demand elasticity**

Our Clinical Playbook Catalyzes and Accelerates Clinical Markets

Build Products

BUILD TECHNOLOGY

- Support clinical innovators as well as standard of care practices that ensures global availability

Obtain Approval

TEST TO DRIVE REGULATORY APPROVAL

- Leverage medical team with experience across globe in regulatory sciences, market access, and medical affairs
- Support evidence generation demonstrates clinical utility of genomic testing in medicine

Demonstrate Utility

PROVIDE EVIDENCE OF CLINICAL UTILITY

- Collaborate with key individuals and institutions to highlight value of genomic testing

Grow Reimbursement

REIMBURSEMENT AND PAYER ENGAGEMENT

- Submit documentation for regional registration of products and evidence dossiers

Drive Adoption

ADOPTION IN CLINICAL MARKETS

- Raise awareness of evidence supporting clinical utility and value to genomic testing globally
- Educate value of genomics to healthcare providers

ADOPTION WITHIN KEY MARKETS SERVED BY ILLUMINA TECHNOLOGY

Our Global Installed Base of Market Leading Sequencing Technology is Foundational to Accessing Clinical Markets

21,000+ SEQUENCING SYSTEMS INSTALLED GLOBALLY

Low-throughput


MiSeq™


MiniSeq


iSeq 100

Mid-throughput


NextSeq 500


NextSeq 550


NextSeq 1000/2000

High-throughput


NovaSeq™ 6000


NovaSeq X™ Series

NEW

Diagnostic Sequencers


MiSeq™ Dx


NextSeq™ 550Dx


NovaSeq™ 6000Dx

NEW

Available Q4 2022

Build Products → Obtain Approval → Demonstrate Utility → Grow Reimbursement → Drive Adoption

Our Open Platform Approach Allows Rapid Development and Deployment of IVD and LDT Clinical Content

CUSTOMER AND PARTNER CONTENT

Laboratory Developed Tests

- Offer best-in-class sequencing technology, competitive pricing, and unequaled supply continuity and customer service
- Remain sequencing platform of choice while innovators expand application of sequencing in clinical care

Partner IVD Development

- License access to diagnostic sequencers for the development of distributed IVDs by partners
- Approach is being leveraged to expand menu and provide choices for clinical laboratories

Our Sequencing Technologies are Foundational to Current Clinical Leaders

GUARDANT · Quest Diagnostics · GENETRON 泛生子 · NHS · natera · TEMPUS · CARIS LIFE SCIENCES · MGI · 燃石医学 Burning Rock Dx · labcorp

ILLUMINA DEVELOPED CONTENT

Investing in Strategic IVD to Open Key Markets

- Oncology – Praxis (Extended RAS), TSO Comp
- Genetic Disease – Cystic Fibrosis
- Reproductive Health – Veriseq NIPT V2
- Infectious Disease – COVIDSeq (EUA)

Pharma Partnerships Place Cdx Claims on IVD Backbones

BAYER · Boehringer Ingelheim · MERCK · AstraZeneca · Bristol Myers Squibb

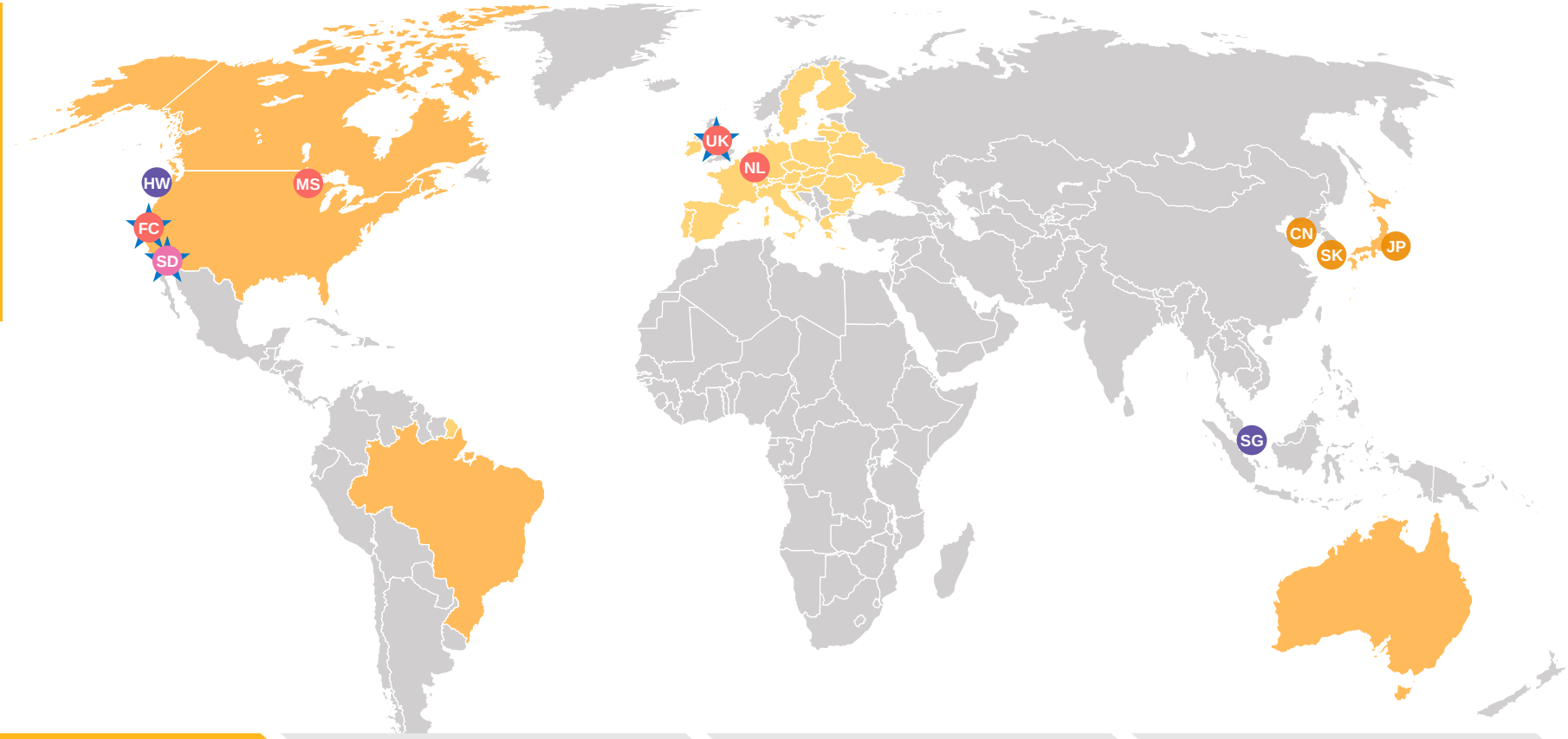
Build Products → Obtain Approval → Demonstrate Utility → Grow Reimbursement → Drive Adoption

>1,000+ IVD/ EUA Product Registrations and Global Quality Management System Certificates Enable Right-to-Operate Across Clinical Markets

72 **Approvals from 58 Regulatory Agencies**

7 **IVD Product Families** (+ 1 EUA)

1000+ **Product Registrations** IVD/EUA Registrations Across 62 Countries



- MDSAP - 5 Countries (AU | BR | CA | JP | US)
- IVDR - 30 Countries (EU + EFTA)
- Country Specific Licences
- ISO 13485 – Site Certification
- SD HQ: ISO 13485, MDSAP, IVDR
- MDSAP, ISO 13485 – Site Certification
- Clinical Laboratory Services

Build Products | **Obtain Approval** | Demonstrate Utility | Grow Reimbursement | Drive Adoption

Cities: FC = Foster City, CA; HW = Hayward, CA; MS = Madison, WI; SD = San Diego, CA.
Countries: CN = China; JP = Japan; NL = Netherlands; SG= Singapore; SK = South Korea; UK = United Kingdom.

Extensive Collaborations and Publications Building Evidence for Clinical Utility of NGS Testing Across Globe

800+ Peer-reviewed Papers in Strategic Clinical Segments

171	42	400+	212
TSO-500	VeriSeq Verify, etc.	WGS, RUGD, and Oncology	COVIDSeq

263 Studies and Research Collaborations Across Globe in Pipeline

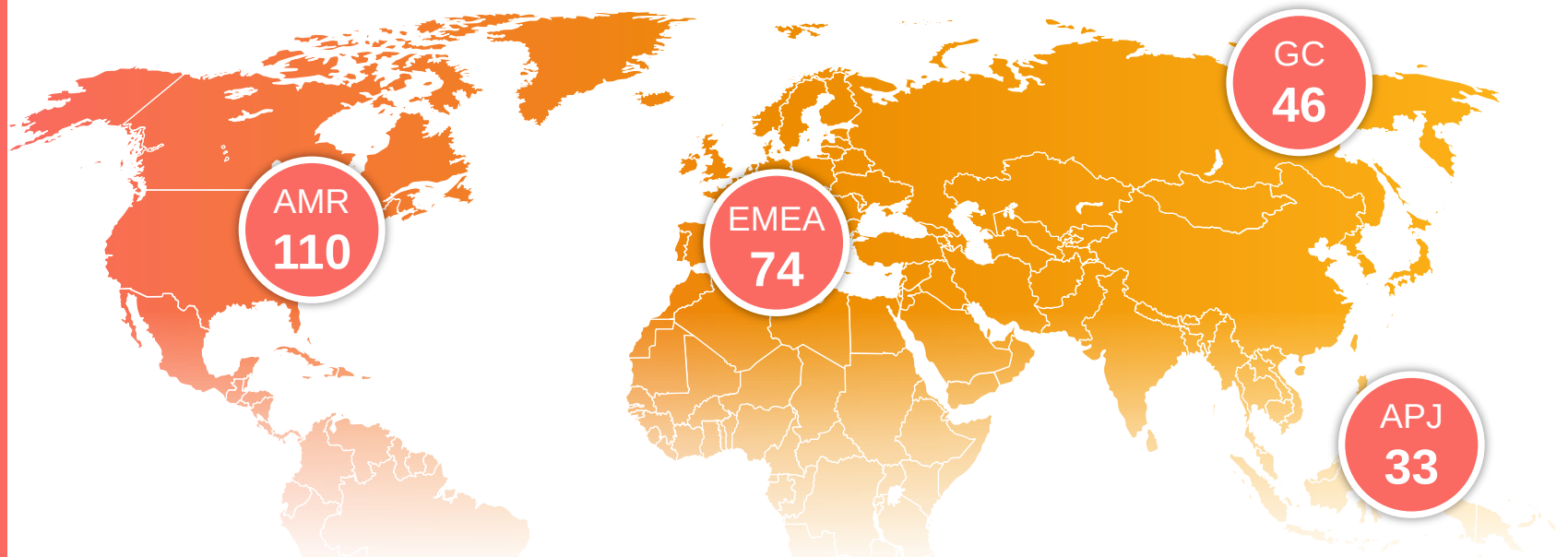
143 in Oncology (45 Cdx Trials)

74 in GDT

32 in Reproductive Health

14 in Infectious Disease

COLLABORATIONS IN PIPELINE



Collaborating with Medical Societies Across Globe

ACMG · ASHG · KSMO · ASPC · AMP · ANA · ispd · Heart Rhythm Society · American College of Cardiology · Leukemia & Lymphoma Society · Conquer Cancer · The Society of Obstetricians and Gynaecologists of Canada · NCCN · RACGP · ESHG · The European Society of Human Genetics · Prostate Cancer Foundation · ACOG · ESMO · NOGGO

Build Products | Obtain Approval | **Demonstrate Utility** | Grow Reimbursement | Drive Adoption

Multiple Strategic Evidence Projects Engage Health Systems Globally and Demonstrate Clinical Utility

PROVIDENCE (USA)

Performing CGP on all advanced cancer patients in their system to demonstrate utility within an integrated care system resulting in 8 abstracts accepted to major conferences; 3+ manuscripts in development

BALLETT (Belgium)

Study will include 960 patients across Belgium from 12 Cancer Centers and 9 NGS labs using CGP to demonstrate utility within a Nationalized single payer system

NICUSeq (USA)

Sponsored by Illumina, was first prospective, randomized trial demonstrating a 50% improvement in early diagnosis and 50% change in management in newborns receiving rapid WGS

BABY LION (Germany)

Hanover Medical School will evaluate the use of WGS to show the positive impact of earlier diagnosis and treatment of care of infants suspected of having a genetic disorder while in the neonatal intensive care unit

BABY BAMBI (Israel)

Israel's Ministry of Health (MoH) and the Genetics Institute (Tel-Aviv Sourasky Medical Center) for a pilot program to implement the use of WGS in critically-ill infants in neonatal intensive care units (NICU)

FUDAN HOSPITAL (China)

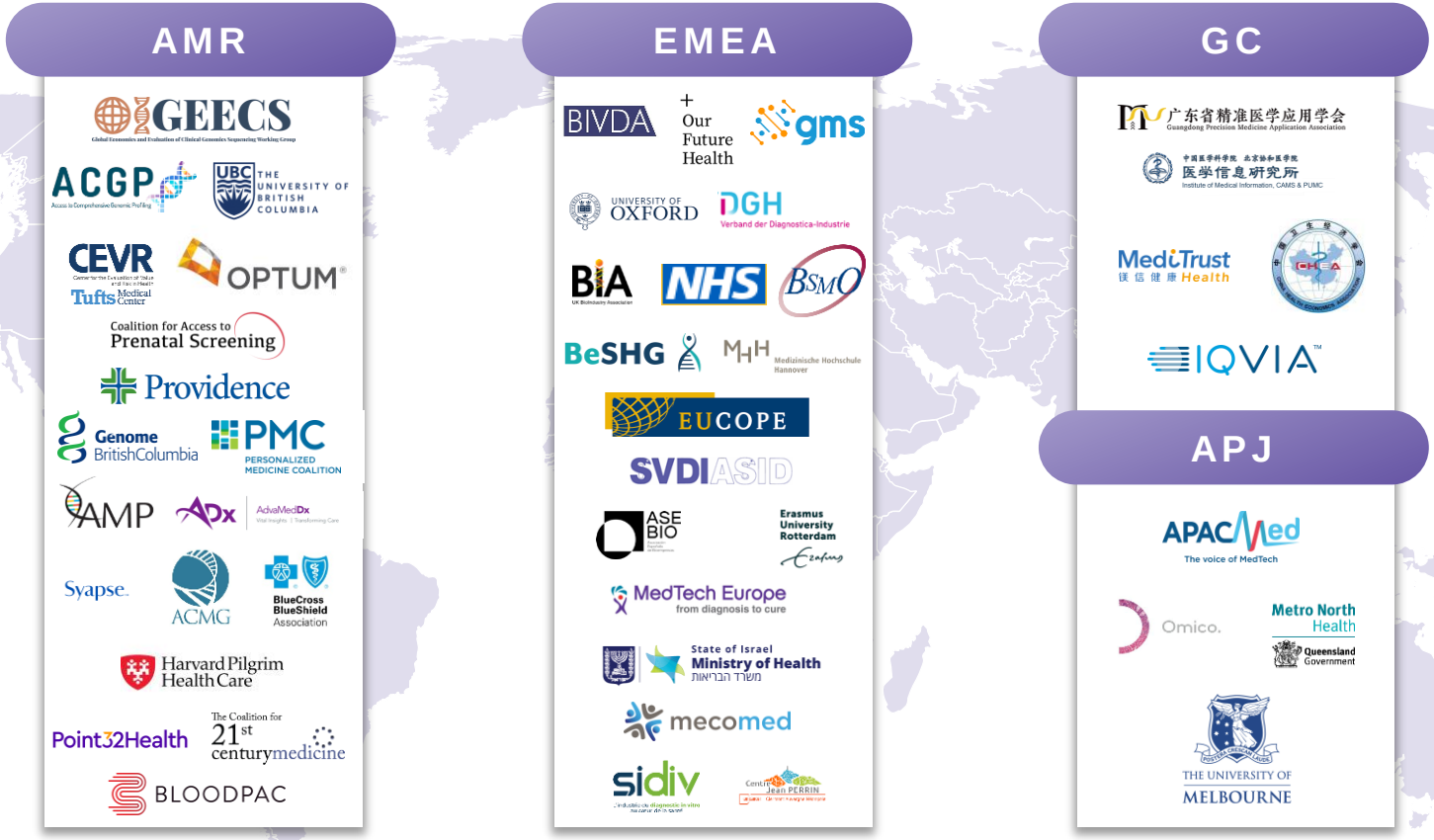
Children's Hospital of Fudan University in Shanghai is delivering 24-hr rapid WGS diagnosis solution to NICU infant patients resulting in China's 1st Expert Consensus and 1st research article published for NICU rapid WGS application

Build Products | Obtain Approval | Demonstrate Utility | **Grow Reimbursement** | Drive Adoption

1B+ Lives Covered for Reimbursement for NGS Testing Across Globe with Path to 2B Lives Covered by 2026

KEY DRIVERS OF GROWTH

- Engagement with key stakeholders that impact reimbursement globally
- Collaborate to generate evidence for clinical and economic utility when gaps are identified
- Build evidence dossiers that meet expectations for public and private payers
- Work with government and patient advocacy to ensure policies and expectations align with evidence



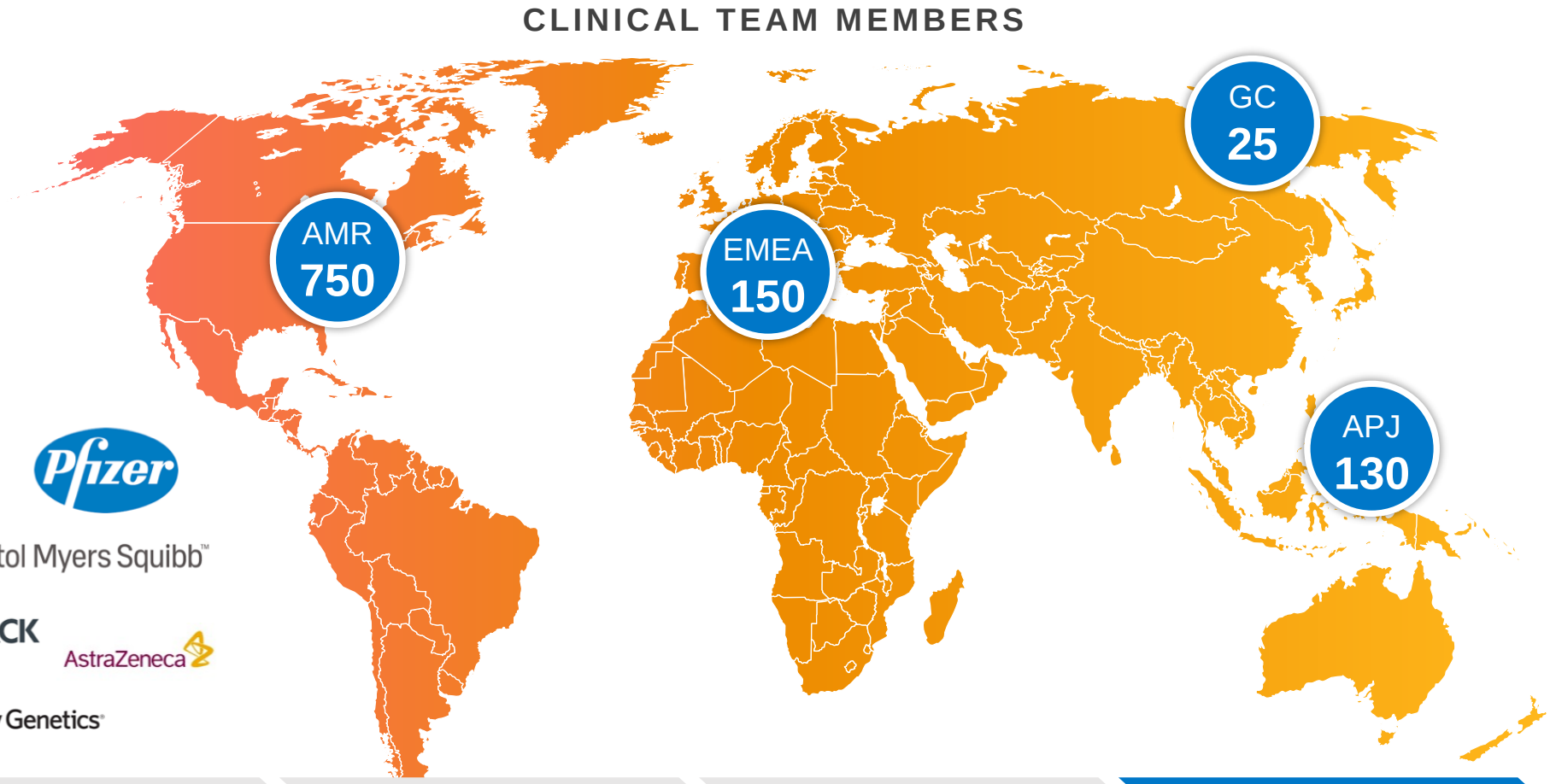
Build Products | Obtain Approval | Demonstrate Utility | **Grow Reimbursement** | Drive Adoption

Note: Logos reflect payers and organizations we work with globally.

Established Medical Team of >1,000 Professionals Drives Adoption and Supports Customer and Partner Clinical Activity

- **>1,000** professionals dedicated to
  - Medical and Scientific Affairs
  - Regulatory and Clinical Affairs
  - Market Access
  - Global Quality
  - Global Clinical Lab Services
- Highly experienced professionals drawn from clinical market leaders

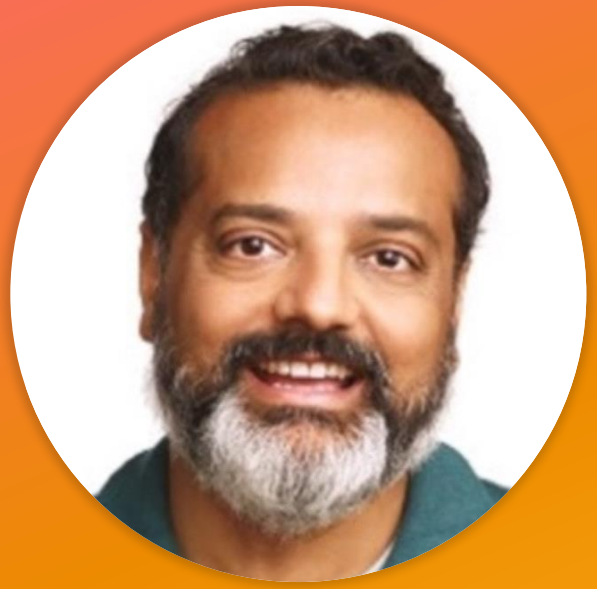
FOUNDATION MEDICINE
Abbott
Pfizer
GUARDANT
Roche
Bristol Myers Squibb
MERCK
AstraZeneca
SANOFI GENZYME
GILEAD
Ambry Genetics



Build Products | Obtain Approval | Demonstrate Utility | Grow Reimbursement | **Drive Adoption**

Note: Employee data is approximate, as of September 2022.

Genomic Testing is Transforming Care and Changing Patients Lives



PATIENT STORY: AJ

- Non-smoker in 40s
- Frequent clearing of throat, cough
- CT scan
- Metastatic non-small cell lung cancer
- Comprehensive genomic profiling of a brain metastasis – ROS-Fusion+
- Remains disease free on ROS-targeting agents 12 years after diagnosis

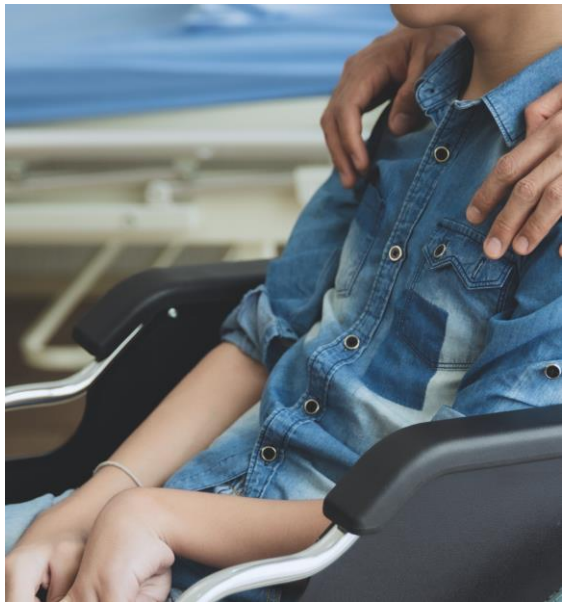
"Originally, I only had 6 months, but the decision to get biomarker testing has completely changed that outlook!"

– AJ (Lung Cancer Survivor)

Illumina Focuses on Strategic Clinical Segments to Accelerate Markets

ONCOLOGY

REPRODUCTIVE HEALTH



GENETIC DISEASE

INFECTIOUS DISEASE

Accelerating Penetration in Existing Markets with a TAM of ~$102B[1]

[1] Represents 2027E TAM for Clinical and Infectious Disease Testing.

We Are Improving Care Across Cancer Journey through Genomics

Early Detection

Cancer Screening will Leverage NGS to Transform Care

- Robust evidence that sequencing of cfDNA can detect shedding of tumor cell DNA into the circulation
- Multiple groups are working to develop sequencing-based single-cancer or multi-cancer early detection tests
- GRAIL's reported updated results from the Pathfinder study of Galleri at ESMO with outstanding specificity
- Adoption will shift cancer to earlier diagnosis when more treatable and potentially curable

Therapy Selection

CGP is Becoming the Standard of Care for Therapy Selection

- Continued momentum in reimbursement
- Growing support among professional societies and in guidelines (Americas)
- Trials for complex genomic signatures (TMB, MSI, HRD[1]) in adjuvant settings
- In WGS, growing clinical evidence[2] in heme and pediatrics along with reimbursement traction in the EU

Monitoring

Use Cases Include Adjuvant Treatment Selection, the Assessment of Treatment Effectiveness, Recurrence Monitoring, and Prognosis

- MRD-guided therapy enables 46% less adjuvant chemotherapy while achieving same survival benefit in colorectal cancer patients[3]
- Ability to detect recurrence earlier and more accurately than current methods (9 -12 months earlier)[4]
- Innovation driven by 12+ significant MRD players with products at varying stages of development and using a range of approaches

Customers

EXACT SCIENCES · GRAIL · freenome · GENETRON 泛生子 · MURSLA bio · TEMPUS · CARIS LIFE SCIENCES · FMI Medical Systems, Inc. "Compassion For Life" · IAB TSO 500 powered by Illumina · GUARDANT · natera

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Note: GRAIL is being held and operated separately in accordance with an order adopted by the European Commission; [1] TMB (Tumor Mutational Burden), MSI (Microsatellite Instability), HRD (Homologous Recombination Deficiency) [2] Newman S, Cancer Discovery (December 2021): 86% of pediatric patients harbored clinically relevant variants; [3] Tie J, NEJM (June 2022) [4] Existing methods include CT imaging & CEA (carcinoembryonic antigen); Natera 8K (2019).

Expanding Coverage and Utilization Drive Noninvasive Prenatal Testing (NIPT) Growth

COVERAGE CONTINUES TO GROW GLOBALLY (17% GROWTH YoY)

REGION	LIVES[1]	% COVERED
AMR	**291M**	**97%**
EMEA	**318M**	**80%**
CHINA	**370M**[2]	**26%**
APJ	**0M**	**0%**

2022 HIGHLIGHT: GERMANY IMPLEMENTS NIPT AS REIMBURSED SERVICE[3]

- ✓ Represents incremental **~250,000 pregnancies**
- ✓ **Requires CE-mark** and must fulfill defined **performance criteria**
- ✓ **VeriSeq™ NIPT v2** matches all criteria

NIPT: ELEVATING STANDARD FOR PRENATAL SCREENING

- Noninvasive: blood draw with little risk to fetus or patient
- Accurate: shows ≥99% sensitivity and specificity for trisomies 13, 18, and 21
- Early: used as early as 10 weeks gestation
- Uses whole genome next-gen sequencing (NGS) technology

OUR UNIQUE SOLUTIONS

- VeriSeq™ NIPT v2 received IVDR approval in 2021
  - 43 countries registered
- Anticipated first distributable US IVD – TruSight™ NIPT IVD (2023E)

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Note: AMR: (2) US and Canada only; EU: (13) Belgium, Czech Republic, Denmark, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, Switzerland, UK, Israel only. APJ: (3) Japan, South Korea, Australia only – no prenatal screening program in place in Japan and Korea; [1] Covered lives including both average risk and high risk; [2] China covered lives are from the government sponsored Livelihood Programs; [3] As of July 1, 2022.

Whole Genome Improves Diagnosis and Outcomes in Genetic Disease with a Path as a Platform for Common Diseases

Rare and Undiagnosed Genetic Disease (RUGD)

Cardiovascular Disease (CVD)

Genome-as-a-Platform for Germline Companion Diagnostics

OUTSIZED HEALTHCARE SPEND AND UNMET PATIENT NEED IN SEVERAL COMMON AND COMPLEX DISEASES,

Many with Suspected Genetic Components; Building Potential for Longer-term Impact on Patient Health

- 80% of rare diseases have a genetic component
- WES/WGS provide superior, cost-efficient diagnosis (NICUSeq, Baby Bear, GEL)
- Positive reimbursement and guidelines for WES/WGS in key markets (ACMG, EU, US)
- Opportunity for growth as <10% of patients with suspected RUGD receive genomic testing

- Continues to be leading cause of death globally
- Genomics can be used to improve diagnoses and outcomes
  - ACMG 73+ genes
  - Polygenic Risk Scores
  - Pharmacogenomics
- Economic value proposition for providers now more attractive

Cardiovascular	**38**	Phase 0/1 (n=17) Phase 2 (n=5) Phase 3 (n=16)
Neurology	**66**	Phase 0/1 (n=21) Phase 2 (n=20) Phase 3/4 (n=25)
Metabolic	**62**	Phase 0/1 (n=9) Phase 2 (n=24) Phase 3/4 (n=29)
Autoimmune + Transplant	**38**	Phase 0/1 (n=5) Phase 2 (n=12) Phase 3 (n=21)

Our Technology Leveraged During COVID-19 Pandemic Provides a Global Infrastructure for Infectious Disease Surveillance

JAN 2020

Identification of new virus causing COVID-19 with Illumina platform

NOV 2020

COVID-vaccines granted emergency authorization after large, randomized studies demonstrated clinical efficacy

DEC 2020

New, highly infectious variant of SARS-CoV-2 strain, B.1.1.7 identified in the UK

2021 – TODAY

Continued surveillance in > 100 countries to support public health efforts, mitigate risk to diagnostic tests, and vaccine efficacy[1]

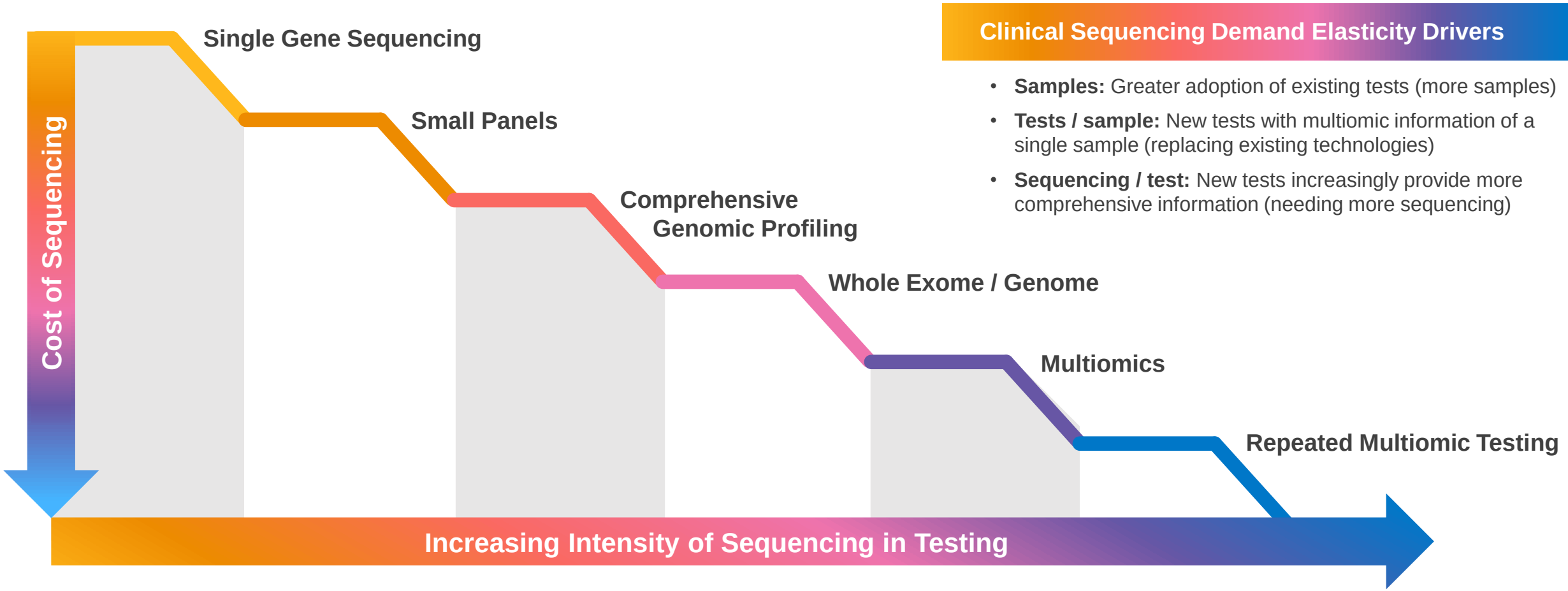
DISCOVERY → **DETECTION** → **SURVEILLANCE**

[1] GISAID database houses >75% SARS-CoV-2 WGS on Illumina platforms in 2021.

Infectious Disease and Microbiology Markets Will Drive Adoption of NGS in Research, Public Health, and Healthcare

	Established Research and Applied Market	Pandemic Accelerated Surveillance Market	Emerging Testing and Antimicrobial Therapy Selection Market
DEFINITION	Microbiome profiling and NGS-based quality control in research and pharma	Sequencing of pathogen genomes to guide Public Health intervention	Detection and sequencing of pathogen genomes for individual patient management
CURRENT STATUS (2022)	• NGS broadly implemented in academia • NGS for pre-clinical and quality control pharma applications is limited and centralized	• Genomic surveillance for foodborne diseases and COVID-19	• NGS centralized in few specialty labs
5 YEAR VISION (2027)	• Multiomics Microbiome profiling in research and pharma (clinical trials) • NGS implemented as routine tool in pharma quality control	• 'One Health' genomics driven pathogen risk management ecosystem implemented in Public Health • Implementation of NGS for infection control in Healthcare facilities	• SOC method (PCR) + NGS as combined approach for diagnostic and therapy selection in routine, de-centralized clinical Microbiology • Microbiome profiles as biomarkers for human health and disease

Decreased Sequencing Costs Drive Clinical Demand Elasticity and Allow NGS Tests to Fit into Cost Structure of Value-based Test Pricing



Clinical Sequencing Demand Elasticity Drivers

- **Samples:** Greater adoption of existing tests (more samples)
- **Tests / sample:** New tests with multiomic information of a single sample (replacing existing technologies)
- **Sequencing / test:** New tests increasingly provide more comprehensive information (needing more sequencing)

Key Takeaways

1. Our proven **clinical playbook allows us to catalyze and accelerate** clinical markets globally

2. **Investments over time have built an unmatched clinical team and infrastructure** that make us a partner of choice for clinical customers worldwide

3. As sequencing becomes more integral to healthcare, **we are uniquely positioned to serve multiple clinical segments** as they benefit from **novel Dx solutions** and **price / innovation driven demand elasticity**

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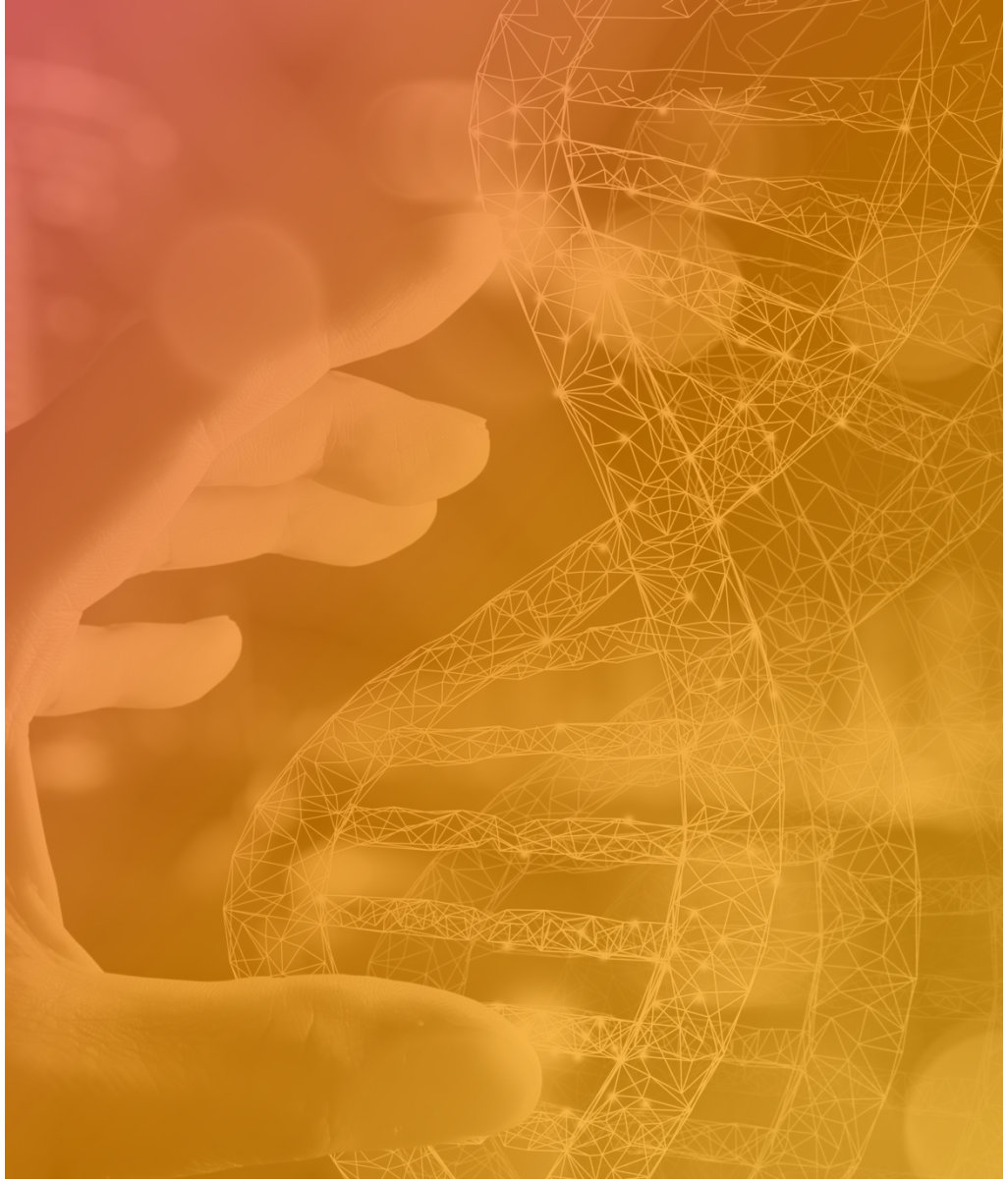
INVESTOR DAY 2022

Session will resume shortly

Commercial Update



Susan Tousi

Chief Commercial Officer

Key Messages

01 **Unrivalled commercial organization** with global reach, capabilities, and capacity to drive rapid adoption of our transformative technology to NGS customers across research and clinical segments

02 We are the **market makers, at the table with our customers,** helping them define the art of the possible in research and clinical applications of genomics / multiomics to transform human health

03 **NovaSeq X and XLEAP-SBS chemistry will drive a multi-year adoption cycle** for high-throughput instruments and enable an inflection in demand elasticity by catalyzing new high-intensity, multiomic NGS applications

Peerless Commercial Organization with Scale, Reach, and Experience to Serve Customers Globally

OUR COMMERCIAL TEAM IS BOTH GLOBAL AND LOCAL…

Commercial FTEs **>2,200**

Sales & Services Employees **~1,700**

Sales, Field Application Scientists (FAS) and Field Service Engineer (FSE) Headcount

AMER	EMEA	GC	APJ
Sales: **260**	Sales: **230**	Sales: **120**	Sales: **70**
FAS: **120**	FAS: **100**	FAS: **40**	FAS: **50**
FSE: **180**	FSE: **130**	FSE: **50**	FSE: **50**
		Partners: **~1,300**	

…AND HIGHLY TRAINED!

~300

Employees with >10 Years Service

>1,000

Clinical Employees[1]

~850

Higher Education

Masters, PhD, MD, ND

Note: Employee data is approximate, as of September 2022; [1] Reflects all clinical employees, including those who support the Commercial organization.

Billions Invested to Create the Largest, Most Reliable Global Genomics Infrastructure in the World

ILLUMINA SERVES >9,100 CUSTOMERS ACROSS 150 COUNTRIES

Investment in Supply Chain & Operations ~$1.4B Last 5 Years

Global Operations & Supply Chain Employees ~3,300

Manufacturing Perfect Acceptance Rate[1] 85%

Insourcing of Critical Components to Ensure Supply Continuity, Quality & IP

15 Solution Centers

6 Factories (~500k sq ft. ISO-13485 Certified Space)

19 Distribution Centers

Note: All figures as of September 2022, unless otherwise stated; [1] Perfect acceptance rate denotes the percentage of instruments accepted without any complaints before or on the customer acceptance date.

>9,100 Customers Trust Us to Continue Delivering the Tools, Service and Support That Are Essential to Their Work

Net Promotor Score (FY21)	54
Instrument Installed Base[1]	>21K
Customer Growth Since Jan. 2019	~45%
Clinical Instrument Installed Base[1]	>6,800
HT Consumables Going to Clinical Customers[2]	43%
NovaSeq + NextSeq 1K/2K Connectivity[1,3]	~70%

RECENT FEEDBACK

*Illumina offers the **best technology on the market**. The machines have become more **robust and fool proof** to run over the years."*

*We have recently completed the clinical validation of TruSight Oncology 500 in our molecular laboratory. The **quality and performance** of the wet and dry bench components of the panel has **really impressed me**. In particular, the **bioinformatics pipeline is smoking fast** – nice work."*

*We have a **great relationship** with the Illumina field team we work with most regularly. They **understand our needs and support us closely** when we have any issues."*

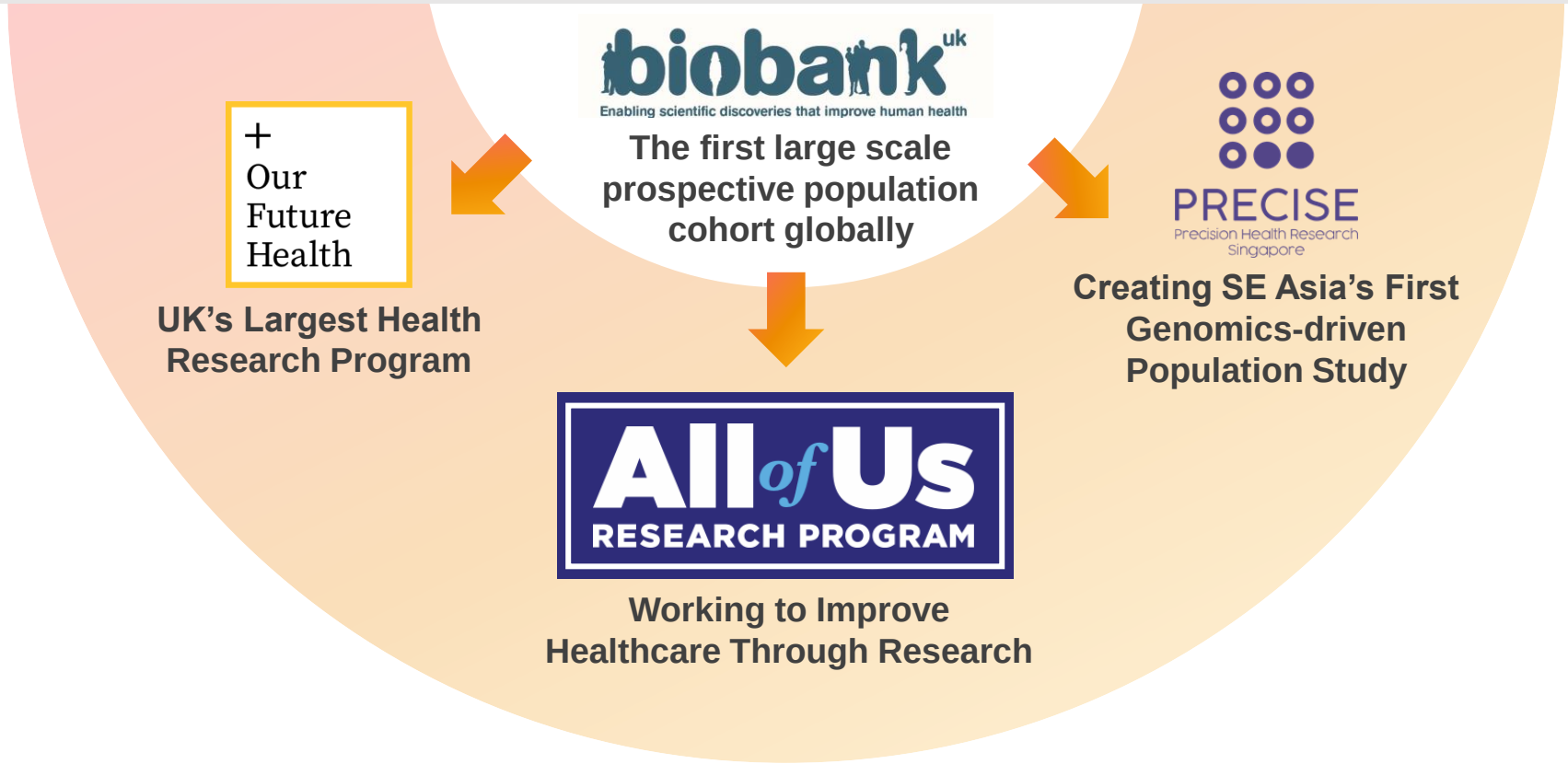
Illumina's Instruments, Consumables and Software are Frequently Spec'd into Our Customers' Work

[1] As of fiscal quarter-end July 3, 2022; [2] Core Illumina financials, LTM as of fiscal quarter-end July 3, 2022; [3] Excludes Greater China region.

We are the Partner of Choice for Pioneering Programs

WE SUPPORT AND ENABLE CUSTOMERS TO EXECUTE ON THEIR VISIONARY NEXT-GEN RESEARCH

- Advisory and professional services
- Laboratory design and set-up
- Clinical patient sample processing
- Large project standardization on DRAGEN for data processing, >1M samples analyzed
- Cloud data infrastructure for data analysis, aggregation, and sharing
- Genotyping and sequencing technology
- Support to customers to scale quickly and efficiently
- Leadership as a founding member of industry consortia

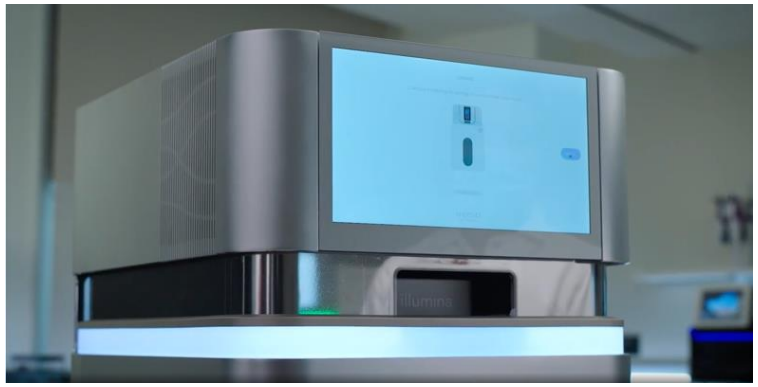


Our Deep Customer Relationships Have Enabled a Continued Rapid Growth in the Mid-throughput Segment

>1,000 MID-THROUGHPUT INSTRUMENTS SHIPPED IN 2021; >50% WERE NEXTSEQ 1000/2000

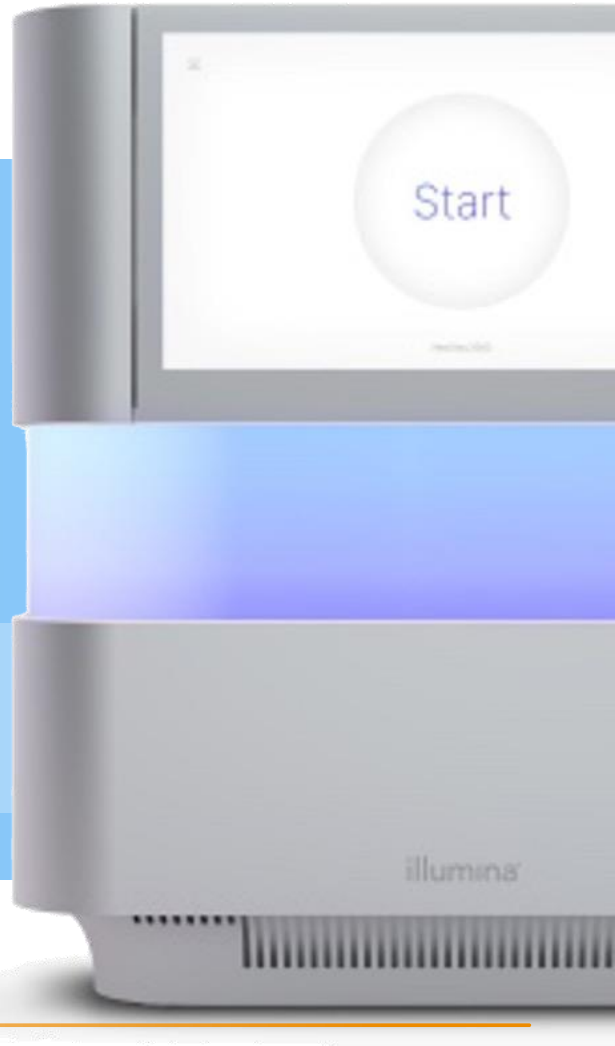
Active customer engagement through dedicated initiatives, including symposia, user groups, digital campaigns, and workshops

- **Broader access to sequencing capabilities**
- **Expanding customer capacity to scale their growing business**
- **Increased adoption of single cell and spatial applications with P3 flow-cell**



Next Product Extensions Will Further Solidify NextSeq 1000/2000 as the Most Versatile Mid-throughput Sequencer on the Market

NEW P1 AND P2 600C KITS	NEW P4 (500GB) KIT
Bring **long read capabilities** to our mid-throughput platform for the first time	Provide access to **XLEAP-SBS** Enable significant **reduction in $/G** and the next level of **scale** and **cost efficiency**
Q4 2022	**Targeted for 1H 2024**



NovaSeq X Delivers Breathtaking Performance at the Most Compelling Price Point Across the Market

MORE FLEXIBILITY, FASTER THAN EVER

- **Can flex to serve a range of customers and needs** – not "one size fits all"
- **Built-in secondary analysis streamlines customer workflows** – more data AND the ability to manage it

MAXIMIZE ROI & MINIMIZE RESOURCE REQUIREMENTS

- **Productivity gains** driven by ease of use, less hands-on time, and fewer touch points
- Time freed up for **more sequencing, larger projects**

PROVEN TECHNOLOGY, MOST WIDELY ADOPTED, AND UTILIZED TECHNOLOGY

- 15-year **track record provides confidence**
- Customers can **tap into the broad ecosystem** of library prep / protocols / applications built on our technology

OPERATIONAL COST SAVINGS

- **90% packaging reduction and ambient shipping** contribute to customers' sustainability efforts
- Increased customer savings will result in **greater sequencing spend**

NovaSeq X Will Broaden Access to Genomics, Accelerating the Adoption of Data-intensive Sequencing

NovaSeq X Plus – Available to Ship in Q1 2023; Compelling Price per Gb Enables Highly-powered Studies

FLOW CELL	CLUSTERS	OUTPUT (Gb)	LIST PRICE PER Gb (USD) Onboard Secondary Analysis Included in NovaSeq X Pricing	AVAILABLE TO SHIP
10B	10 Billion	3,000	**$3.2**	Q1 2023
25B	26 Billion	8,000	**$2.0**	2H 2023
1.5B	1.6 Billion	500	**$5.2**	2H 2023

NovaSeq X
$985K

NovaSeq X Plus
$1,250K

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For Research Use Only. Not for use in diagnostic procedures.
Note: For reference, NovaSeq 6000 v1.5 consumables launch price of $4.8 (S4 flow cell / 10 billion clusters / 3,000 Gb).

Lower Consumables Pricing Will Catalyze Infusion of New Samples and More Sequencing per Sample

SELECT OPPORTUNIES FOR INCREASED SEQUENCING ARE DEPENDENT ON HIGHER THROUGHPUT AND LOWER COST

APPLICATION CONVERSION, GREATER BREADTH

- Exomes to genomes
- Bulk RNA to single cell
- Single method to multiomics

GREATER DEPTH

- Tumor normal
- Translational research
- Clinical genomes and exomes
- Complete long-read genomes

NEW SAMPLES, LARGER COHORTS

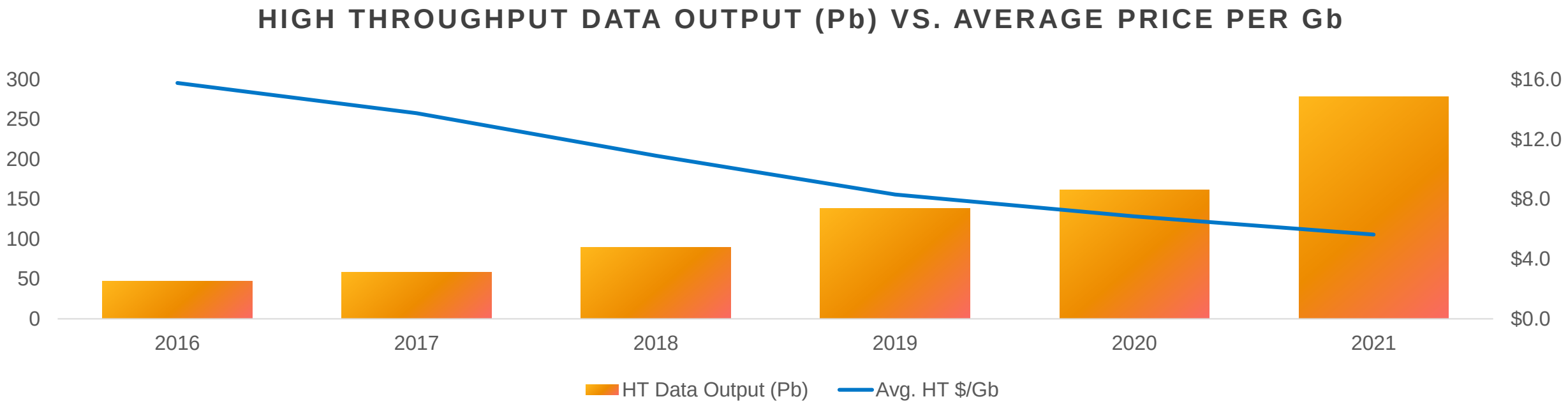
- PopSeq
- RUGD
- HT screening
- ctDNA
- Translational research
- Drug discovery

NovaSeq X Will Transform the Marketplace

	Now	Future
Species Sequenced	Thousands	Millions
Human Genomes Sequenced	~4 Million	100s of Millions
Variants Characterized	<1%	Near 100%

- ✓ Massive projects on the horizon
- ✓ Method conversion, emerging applications and deeper sequencing will drive significant increase in sequencing per sample
- ✓ Lower pricing will unlock new samples and larger cohorts
- ✓ In the past, significant price drops have acted as market catalysts, even under challenging economic conditions

NovaSeq 6000 Unleashed a New Wave of Sequencing



~500% Increase in Data Sequenced was Steeper Than ~70% Decline in Cost of Sequencing

Like NovaSeq 6000, NovaSeq X Will Activate the Next Phase of NGS

	NovaSeq 6000 (2017)	NovaSeq X (2023)
Instrument Adoption Cycle	• Both Research and Clinical customers adopted in Year 1 – Research customers adopted at large scale in Year 1 – Clinical customer adoption began in earnest in Year 2-3 – Increase in Clinical customer base extended the adoption cycle for NovaSeq to 5+ years	• Expect a similar trend in NovaSeq X instrument uptake • Potential upside as customers have become more comfortable / experienced with NGS and new NGS-enabled multi-omics opportunities open up • Expect strong NovaSeq X demand to outstrip supply in 2023 • Transition promos in place to ensure smooth customer transition
Core Consumables (CC) Revenue	• NovaSeq CC revenue was a small portion of total high throughput CC revenue in Year 1 – Majority came from legacy instrument HiSeq – HiSeq CC revenue declined in Year 2 as customers transitioned to NovaSeq 6000 – NovaSeq 6000 contribution to total (and total) grew rapidly as customers ramped up on the new platform	• Expect to see a similar trend on NovaSeq X – Majority of high throughput CC revenue to be generated by NovaSeq 6000 in Year 1 – NovaSeq CC revenue to decline at a slower rate than HiSeq due to larger Clinical installed base – NovaSeq X revenue is expected to grow rapidly
Pull Through (PT)	• HiSeq PT continued to grow in 2017 driven by the lower installed base – Customers used legacy platforms to finish projects • PT on NovaSeq 6000 was relatively low in Year 1 (transition time for new platform) before steadily ramping up	• Similar trend on NovaSeq X – Expect NovaSeq 6000 PT to continue growing in 2023 – 2023 PT will be relatively low on NovaSeq X, accelerating in 2024 as instruments ramp up to higher capacity

And Customers Agree!

“We're excited to be a launch partner for Illumina's new technology, Nova X. We believe this platform has the potential to be transformative for both Tempus' clinical and research operations, and we look forward to integrating it into our labs.”

Eric Lefkofsky Founder and CEO of Tempus

“Illumina provided us with the first technology that allowed for the sequencing of thousands (HiSeq X) and then hundred of thousands of whole genomes (NovaSeq 6000). The new NovaSeq X is going to allow us to sequence the genomes of whole nations.”

Kári Stefánsson Founder and CEO of deCODE Genetics

“We're very excited to be a launching partner for NovaSeq X Series. Macrogen always strives to become the champion of personal whole genome sequencing. I strongly believe NovaSeq X Series will accelerate our path towards the $100 genome. This will enable us to deliver a genetic blueprint to everyone in the world to unlock individual potential and increase life quality -- hence the company's slogan: 'Humanizing genomics.”

Professor Jeongsun Seo Chairman of Macrogen Group

“As a longtime partner of Illumina, the Regeneron Genetics Center has established greater than 120 research collaborations worldwide, sequencing over 2 million ancestrally diverse exomes or genomes using Illumina technology, leading to dozens of groundbreaking new therapeutic discovery and development programs.”

Aris Baras Senior Vice President and Head of the Regeneron Genetics Center

“The power, scale, efficiency and sustainability of the NovaSeq X platform will rapidly accelerate our aspirational efforts to sequence tens of millions of exomes and genomes to identify novel drug targets and advance therapeutics in development through precision genomics. These efforts help us unlock the power of genomics to advance our understanding of human health and hopefully improve outcomes for patients around the world.”

John Overton Vice President and Chief Sequencing Officer of the Regeneron Genetics Center (RGC).

“We are excited to see the advance of sequencing technologies—such as Illumina’s NovaSeq X—and the prospect of higher quality, lower cost sequencing. Such advances will enable us to increase the sample size, power, and diversity of research cohorts, including population biobanks, and further push boundaries of genomics through the acceleration of clinical WGS across a variety of settings.”

Stacey Gabriel Chief Genomics Officer, Broad Institute

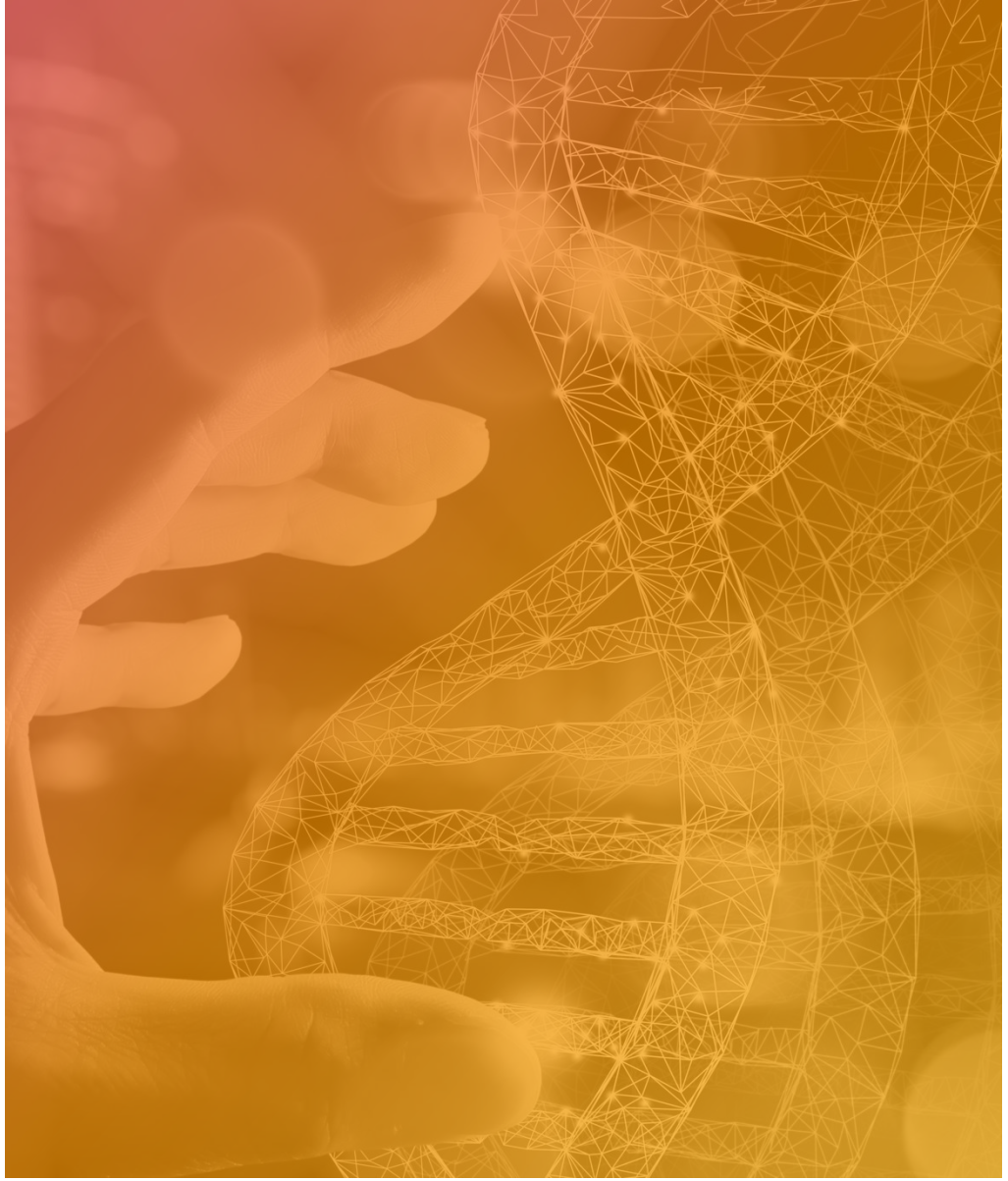
Key Takeaways

1. **Unrivalled commercial organization** with global reach, capabilities, and capacity to drive rapid adoption of our transformative technology to NGS customers across research and clinical

2. We are the **market makers, at the table with our customers,** helping them define the art of the possible in research and clinical applications of genomics / multiomics to transform human health

3. **NovaSeq X and XLEAP-SBS chemistry will drive a multi-year adoption cycle** for high-throughput instruments and enable an inflection in demand elasticity by catalyzing new high-intensity, multiomic NGS applications

Long-term Financial Outlook



Joydeep Goswami, PhD

Chief Strategy and Corporate Development Officer,
Interim Chief Financial Officer

Key Messages

01 **Proven track record of profitable growth,** driven by emphasis on investment in innovation and operational excellence

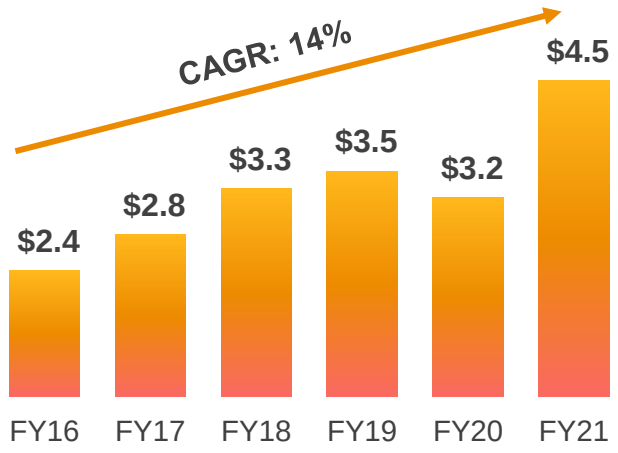
02 **Significant opportunities in large, growing, and underpenetrated markets** and industry-leading technology and scale support **mid-teens revenue growth** over the long-term

03 Economies of scale, disciplined pricing and strategic cost management facilitate **high-teens operating profit growth** over the long-term

04 **Disciplined capital allocation framework** with a focus on both organic and inorganic investments to build sustainable market leadership and unlock new sequencing applications

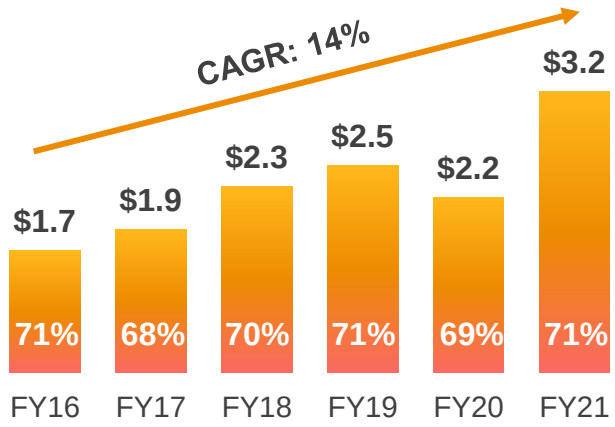
Proven Track Record of Revenue Growth, Sustained Gross Margins, and Operating Leverage

CORE ILLUMINA REVENUE ($B)



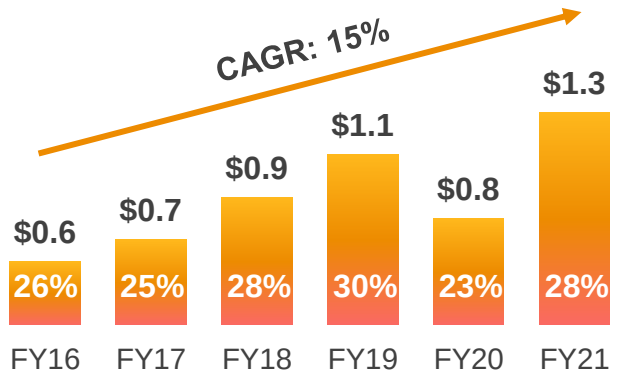
CORE ILLUMINA GROSS PROFIT[1] ($B)

Non-GAAP (% of revenue)



CORE ILLUMINA OPERATING PROFIT[1] ($B)

Non-GAAP (% of revenue)



Strong growth and demand elasticity through NovaSeq product cycle and clinical market expansion, notwithstanding pandemic

Strong gross margins maintained through consistent price realization, COGS-reducing innovations and manufacturing productivity, while lowering the cost of sequencing for customers

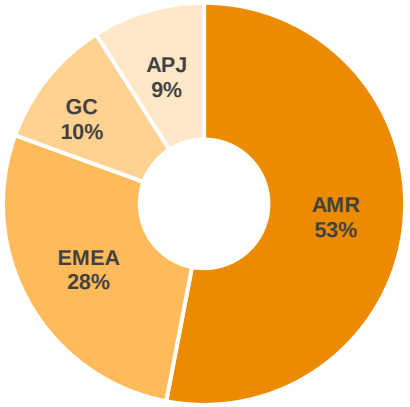
Track record of delivering operating leverage, while **continuing significant investment in innovation (~20% of revenue) and commercial infrastructure (~15% of revenue)** to deliver customer value

[1] Non-GAAP metric. See Appendix for reconciliation.

Revenue Base is Increasingly Global, Clinical, and Weighted Toward Consumables Driven by Growing Installed Base

CORE ILLUMINA GEOGRAPHIC MIX

% of Revenue – LTM Core Illumina Financials (as of 7/3/22)

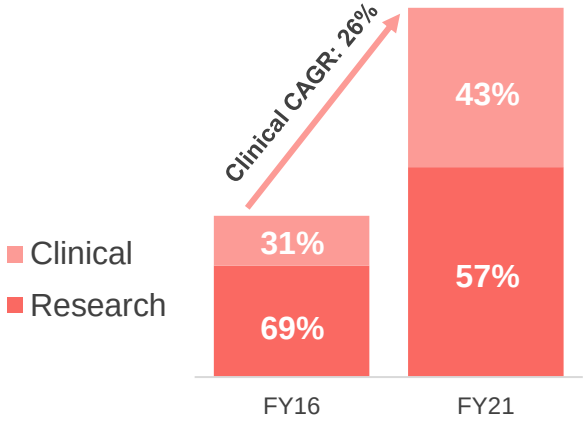


>9,100
Global Customers

~50%
Ex-US Revenues

CORE ILLUMINA END MARKETS

% of Sequencing Consumables Shipments

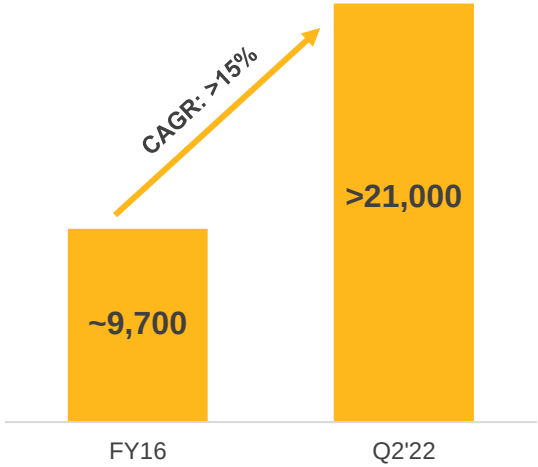


Greater penetration in fast growing **clinical** markets, where our instruments, reagents, and software are **spec'd in validated processes/assays**

Clinical CAGR ~2x that of Total Revenue CAGR

INSTALLED BASE

 # Instruments

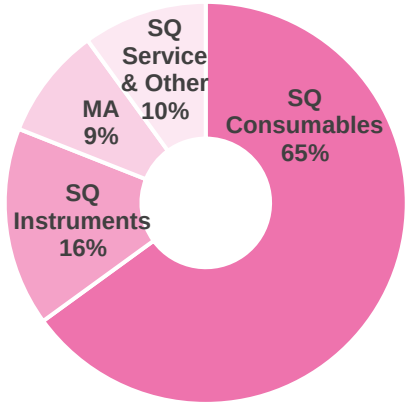


Innovations driving increased utility and scalability of instruments drives strong **consumables growth via pull through**

>80% recurring revenue[1]

CORE ILLUMINA PRODUCT MIX

% of Revenue – LTM Core Illumina Financials (as of 7/3/22)



[1] Based on Core Illumina consumables and service and other revenue.

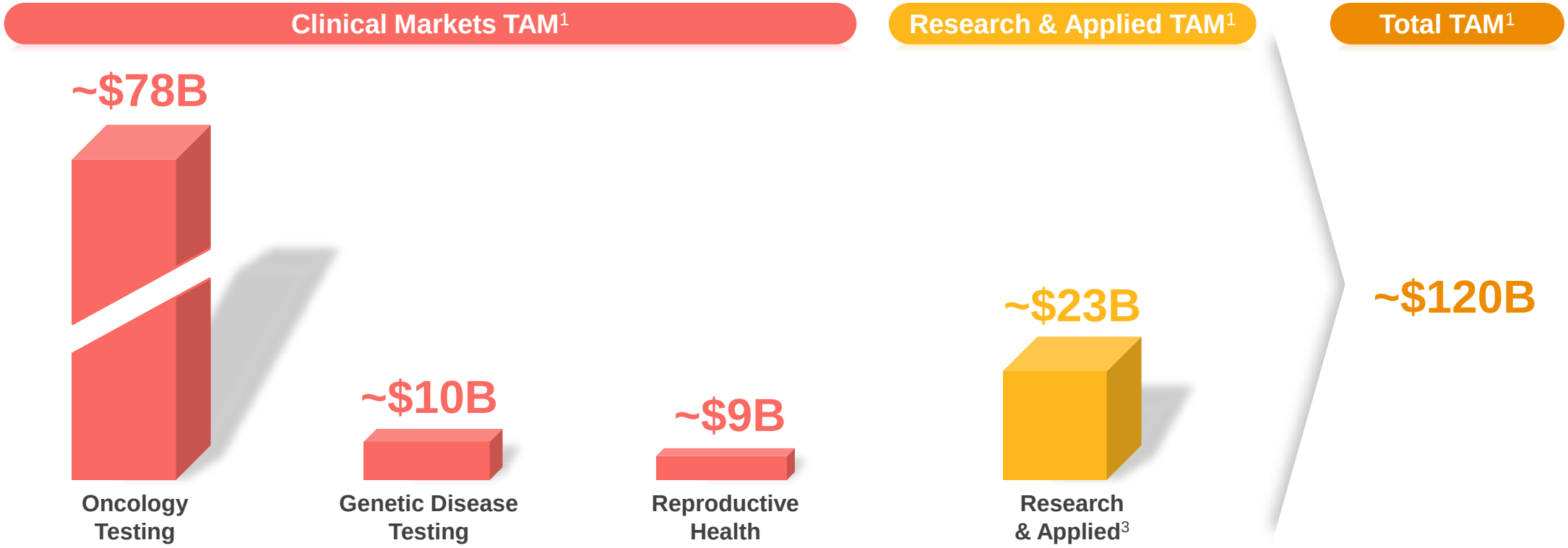
Long-Term Financial Targets – Core Illumina

Mid-Teens %	High 60s to Low 70s %	High Teens %
Revenue Growth	Gross Margin[1]	Operating Profit Growth[1]

FY23 Expected to be Slightly Moderated Given the Challenging Macroeconomic Environment and a Launch Year for NovaSeq X, wherein Demand will Outstrip Supply

[1] Non-GAAP metric. See Appendix for reconciliation.

Well-positioned in Large, Growing Markets; Opportunity to Further Penetrate



	Oncology Testing	Genetic Disease Testing	Reproductive Health	Research & Applied[3]	Total
2022 NGS Penetration[2]	2%	8%	8%	26%	7%
2027 NGS Penetration[2]	8%	16%	12%	34%	14%

[1] Denotes 2027E Total Addressable Market; [2] NGS SAM % of TAM; [3] Other Research & Applied markets include infectious disease testing, consumer genomics, genetic disease research, cancer research, cell & molecular biology, microbiology, and agrigenomics.

Path to Mid-Teens Core Illumina Revenue Growth

1 Core Sequencing Consumables Demand Elasticity

2 Increased Workflow Penetration

3 Factors Mitigating Growth

4 Growth in Instruments, Services, and Arrays

Mid-Teens Core Illumina Revenue Growth

Path to Mid-Teens Core Illumina Revenue Growth

1 Core Sequencing Consumables Demand Elasticity

 # Samples

1.5x – 2.0x

- Clinical and longitudinal samples (e.g., MRD / screening)
- PopGen and pharma discovery cohorts
- Spatial / single cell analysis

 # Analyses / Sample

1.5x – 3.0x

- Lower sample need / analysis
- Mutiomics: DNA + RNA + Methylation + Protein + immune repertoire + …

Gb / Analysis

3.0x – 4.0x

- Small panel to CGP – 5x
- CGP to WGS – 40x
- FFPE to ctDNA – 12x-15x

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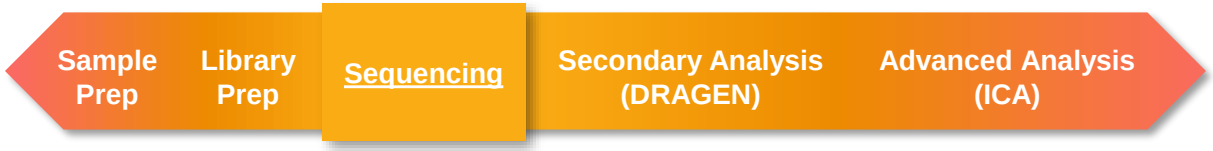

- More library prep and BFx solutions
- End to end solutions for key workflows in research and clinical

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Mid-Teens Core Illumina Revenue Growth

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2 Increased Workflow Penetration

Sample Prep | **Library Prep** | **Sequencing** | **Secondary Analysis (DRAGEN)** | **Advanced Analysis (ICA)**

- More library prep and BFx solutions
- End to end solutions for key workflows in research and clinical

3 Factors Mitigating Growth

$ / GB	*Commitment to continue driving down cost of sequencing*
New Entrants	*Large market opportunity attracts new entrants*
Customer Productivity	*Increased assay operational efficiency at customers*
Macroeconomic Headwinds	*Capital constraints and discretionary project spend*

4 Growth in Instruments, Services, and Arrays

Mid-Teens Core Illumina Revenue Growth

Path to Mid-Teens Core Illumina Revenue Growth

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4 Growth in Instruments, Services, and Arrays

High Single-Digit CAGR

Mid-Teens Core Illumina Revenue Growth

Operational Excellence Drives Additional Value for Stakeholders

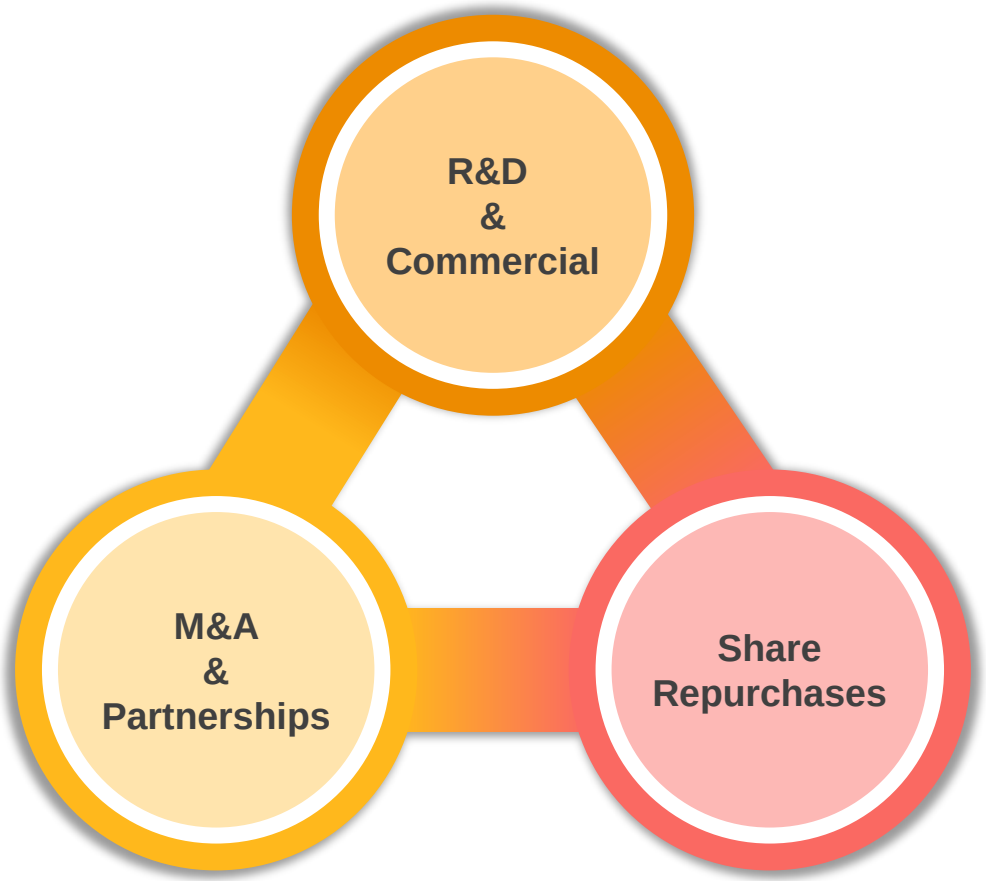
GROSS PROFIT – Maintain in the High 60- Low 70% Range

- Disciplined pricing that continues to deliver superior value / total cost of ownership to customers
- Innovation drives less expensive materials, improved processes, and greater productivity (e.g., process automation/ standardization)
- Economies of scale enable continued cost-of-goods-sold improvements
- Diversified manufacturing base and increased insourcing to lower factor costs (e.g., enzymes, flowcells, oligos)

OPERATING PROFIT – High-Teens Growth

- Economies of scale while maintaining industry leading investments in R&D and commercial infrastructure development (especially in clinical and solution selling)
- Reduce costs to serve through highly connected instruments and e-commerce
- Continue to drive scale efficiencies in G&A expenses (e.g., travel, shared service optimization, etc.)

Strategic Priorities for Capital Allocation



ORGANIC INVESTMENTS IN R&D & COMMERCIAL

Primary focus on organic investments with maintained leadership in R&D investment and commercial

M&A & PARTNERSHIPS

Selective bolt-on M&A and strategic partnerships to accelerate fast-growing market penetration

SHARE REPURCHASES

Share repurchases remain our preferred mechanism to return capital to shareholders (no dividend contemplated at this time)

Capital Allocation Priorities Underpinned by Strong, Flexible Balance Sheet with Target Leverage Ratio of <2.0x Gross Debt / EBITDA, While Maintaining a Strong Focus on Innovation and Execution

Organic Investments with Maintained Leadership in Innovation and Ability to Serve Customers Globally Across Research and Clinical

Organic Investments

Research & Development

Maintain historical industry-leading investment rate (% revenue) in R&D

- Accelerate frequency of new platform introduction
- Advance innovation roadmap with continued strong sustainable IP protection
- Continued investment in clinical / medical products and infrastructure

Sales & Marketing

Continue investments in Sales & Marketing while capturing economies of scale and using technology to reduce cost to serve

- Scale infrastructure and geographic footprint to support long-term growth trajectory
- Continue to invest in serving the expanding clinical and pharma biotech customer base
- Use e-commerce, instrument utilization tracking, auto-replenishment, etc. to reduce cost to serve

Key Takeaways

1. **Proven track record of profitable growth,** driven by emphasis on investment in innovation and operational excellence
2. **Significant opportunities in large, growing, and underpenetrated markets** and industry-leading technology and scale support **mid-teens revenue growth** over the long-term
3. Economies of scale, disciplined pricing and strategic cost management facilitate **high-teens operating profit growth** over the long-term
4. **Disciplined capital allocation framework** with a focus on both organic and inorganic investments to build sustainable market leadership and unlock new sequencing applications

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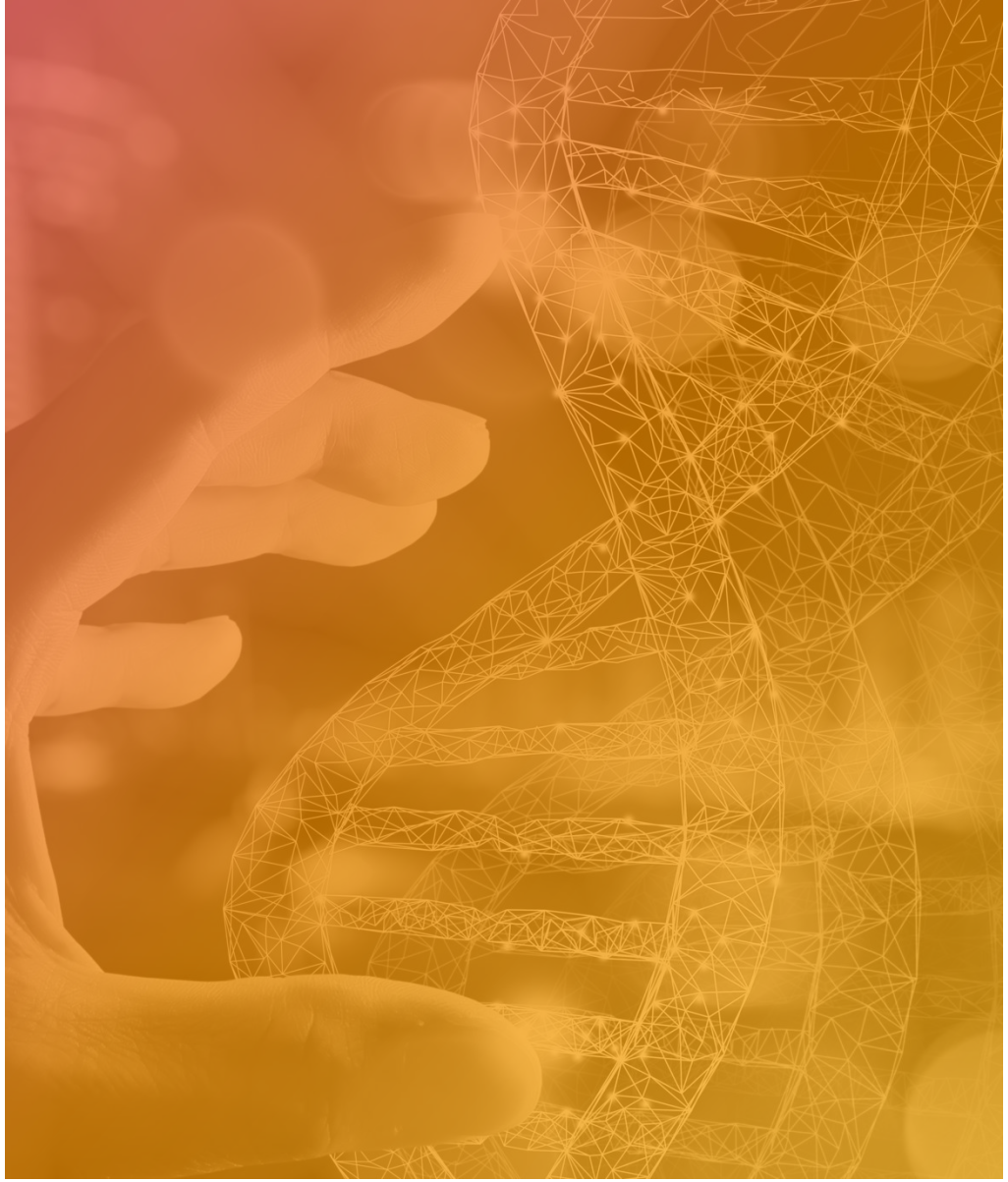
INVESTOR DAY 2022

OCTOBER 3 | SAN DIEGO, CA

Speaker Bios



Speaker Bios

Francis deSouza

Chief Executive Officer

Francis deSouza was appointed CEO of Illumina in 2016 and is responsible for directing all aspects of company strategy, planning, and operations. He initially joined the company as President in 2013, and led Illumina's business units and core functions responsible for envisioning, developing and producing the company's products.

Previously, deSouza served as President of Products and Services at Symantec Corporation, where he was responsible for driving the vision for the company's market-leading portfolio and served in a variety of executive roles. He joined Symantec through the acquisition of IMlogic, where he was co-founder and CEO.

Prior to joining IMlogic, deSouza was co-founder and CEO of Flash Communications, a provider of corporate instant messaging that was acquired by Microsoft. Following the acquisition, he joined Microsoft and led the team responsible for the development of the company's enterprise real-time collaboration offerings. Currently, he is a member of the board of directors for The Walt Disney Company.

Francis deSouza received a BS and MS in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology.

Speaker Bios

Alex Aravanis, MD, PhD

Chief Technology Officer, Head of Research and Product Development

Alex Aravanis, MD, PhD, is Illumina's Chief Technology Officer, Head of Research and Product Development. He re-joined Illumina in June 2020 and is responsible for leading Illumina's research and product development teams in engineering, consumables, applications, user design, software, informatics, and artificial intelligence. These teams are Illumina's innovation engine and deliver product excellence in next-generation sequencing platforms and applications to accelerate scientific breakthroughs and translation of genomics to the clinic.

Alex is an experienced entrepreneur and was involved in founding several start-ups in the life sciences and healthcare. Most recently, he co-founded GRAIL Bio where he served as Chief Scientific Officer and Head of R&D. At GRAIL, Aravanis led the research, development, operational, and clinical teams developing its multi-cancer early detection test. Alex's passion for accelerating the commercial application of technology innovation continue in his current role where his responsibilities also include the Illumina Accelerator, the world's first business accelerator focused solely on creating an innovation ecosystem for the genomics industry.

Prior to GRAIL, Alex served as Senior Director of R&D for Illumina, Inc., where he developed multiple technologies, including clinical assays for the analysis of RNA and DNA from fixed tissues, whole exome analysis, massively parallel single cell transcriptomics, and liquid biopsy using cell-free nucleic acids.

Alex earned BS in Electrical Engineering, Computer Science, and Physics Minor from the University of California, Berkeley, as well as an MS and PhD in Electrical Engineering, and an MD from Stanford University. He holds more than 30 (pending and issued) patents and numerous peer-reviewed publications, additionally he serves on various Scientific Advisor Boards for biotech startups.

Speaker Bios

Phil Febbo, MD

Chief Medical Officer

Phil Febbo, MD was appointed as Chief Medical Officer in March 2018. In this role, he is responsible for developing and executing the Company's medical strategy to drive genomic testing into healthcare practice. Dr. Febbo has a successful track record of translational research, clinical excellence, and for embedding molecular insights into clinical care.

Immediately before joining Illumina, Dr. Febbo served as CMO of Genomic Health. Prior to his five years at Genomic Health, Dr. Febbo was a Professor of Medicine and Urology at the University of California, San Francisco (UCSF), where his laboratory focused on using genomics to understand the biology and clinical behavior of prostate cancer, and his clinical practice focused on genitourinary oncology.

Before joining the faculty of UCSF as an associate professor in 2010, Dr. Febbo worked at Duke University Medical Center's Institute of Genome Sciences and Policy. He completed his internal medicine residency at the Brigham and Women's Hospital, and his fellowship in oncology at the Dana-Farber Cancer Institute. After which he was an Attending Physician in the Genitourinary Oncology Center at Dana-Farber, Instructor at Harvard Medical School, and a post-doctoral fellow in Dr. Todd Golub's laboratory at Dana-Farber, as well as the Whitehead Institute Center for Genomic Research of MIT (now the Broad Institute). Throughout his career, Dr. Febbo has served as a primary investigator for the Translational Research Program of The Alliance, an NCI-supported cooperative group, where his work focused on incorporating biomarkers into large clinical trials.

Dr. Febbo holds a Bachelor of Arts degree in Biology from Dartmouth College and an M.D. from UCSF. He has served on the Board of Varian Medical Systems and currently sits on the Board of the Regan-Udall Foundation of the Food and Drug Administration.

Speaker Bios

Susan Tousi

Chief Commercial Officer

Susan Tousi is Chief Commercial Officer at Illumina, where she leads global sales, commercial operations, and commercial strategy and enablement. Susan combines her extensive general management leadership and deep technical knowledge of Illumina's product portfolio to ensure the global commercial success of the organization. She is committed to empowering Illumina customers with innovations to further unlock the power of the genome.

Susan has been with Illumina since 2012, and previously lead the product development organization as Chief Product Officer. During that time, she was responsible for global engineering, consumables, sequencing applications, IVD, software and informatics development efforts: During this time, she oversaw the most impactful decade of product launches including: HiSeq X, NovaSeq, MiSeq Dx, NextSeq 550Dx/1000/2000, iSeq, VeriSeq NIPT, TSO500,COVIDSeq, DRAGENTM, and Illumina Connected Analytics. Additionally, she led the acquisition of Edico Genomics, BlueBee, and Enancio, combined with Illumina's existing software solutions, these new capabilities enable scalable, seamless, end-to-end software solutions that drive the utilization of genomic data and accelerate the adoption of genomic data in clinical care.

Susan has more than 25 years of R&D and business leadership at Fortune 100 technology companies and within the life sciences industry. Formerly, she was Corporate Vice President and General Manager for Eastman Kodak's Consumer Inkjet Systems organization. Prior to joining Kodak, Susan was an R&D program manager for Phogenix Imaging LLC, a joint venture start-up of Hewlett-Packard and Kodak. She previously spent 10 years with Hewlett-Packard in technical and management roles. Along with many academic honors, she has received numerous awards in both business and technology. In 2018, Susan was elected to the National Academy of Engineers. Susan was named one of the 50 Top Diverse Leaders for 2020 by the California Diversity Council and is a member of the International Women's Forum, a global organization of preeminent women of significant and diverse achievement.

Susan holds an MBA degree from UCLA and an Honors BS in Engineering Science and Mechanics from Pennsylvania State University. She currently serves as a scientific advisor on Vizgen's Scientific Advisory Board, as well as on BICO's Board of Directors.

Speaker Bios

Joydeep Goswami, PhD

Chief Strategy and Corporate Development Officer, Interim Chief Financial Officer

Joydeep Goswami is Chief Strategy and Corporate Development Officer where he is responsible for driving planning, strategic partnerships and acquisitions. In addition to his current role, Joydeep is also acting as interim CFO, with responsibility for the company's finance, accounting, investor relations, internal audit, treasury activities.

Most recently, he served as the President of Thermo Fisher Scientific's Clinical Next-Generation Sequencing (NGS) and Oncology business unit, where he oversaw efforts that drove the adoption of NGS in clinical oncology, research and reproductive health. Goswami has held senior leadership roles across the pharma/biotech, diagnostics and research tool continuum, previously serving at companies such as Life Technologies and Invitrogen, in addition to Thermo Fisher Scientific. He has led teams across various functions, including sales, marketing, R&D and other support functions. Mr. Goswami served as President, Asia Pacific and Japan while at Thermo Fisher Scientific and created the Stem Cells and Regenerative Medicine Business Unit at Invitrogen. Additionally, he spent five years at McKinsey, where he specialized in strategy for pharmaceutical, medical technology and technology companies.

Mr. Goswami holds his MS, PhD in Chemical Engineering, an MBA from MIT and a Bachelor's degree in Chemical Engineering from the Indian Institute of Technology.

Speaker Bios

Salli Schwartz

Vice President of Investor Relations

Salli Schwartz is the Vice President of Investor Relations, leading all investor strategies and activities including quarterly earnings releases and conference calls, investor presentations, and day-to-day interactions.

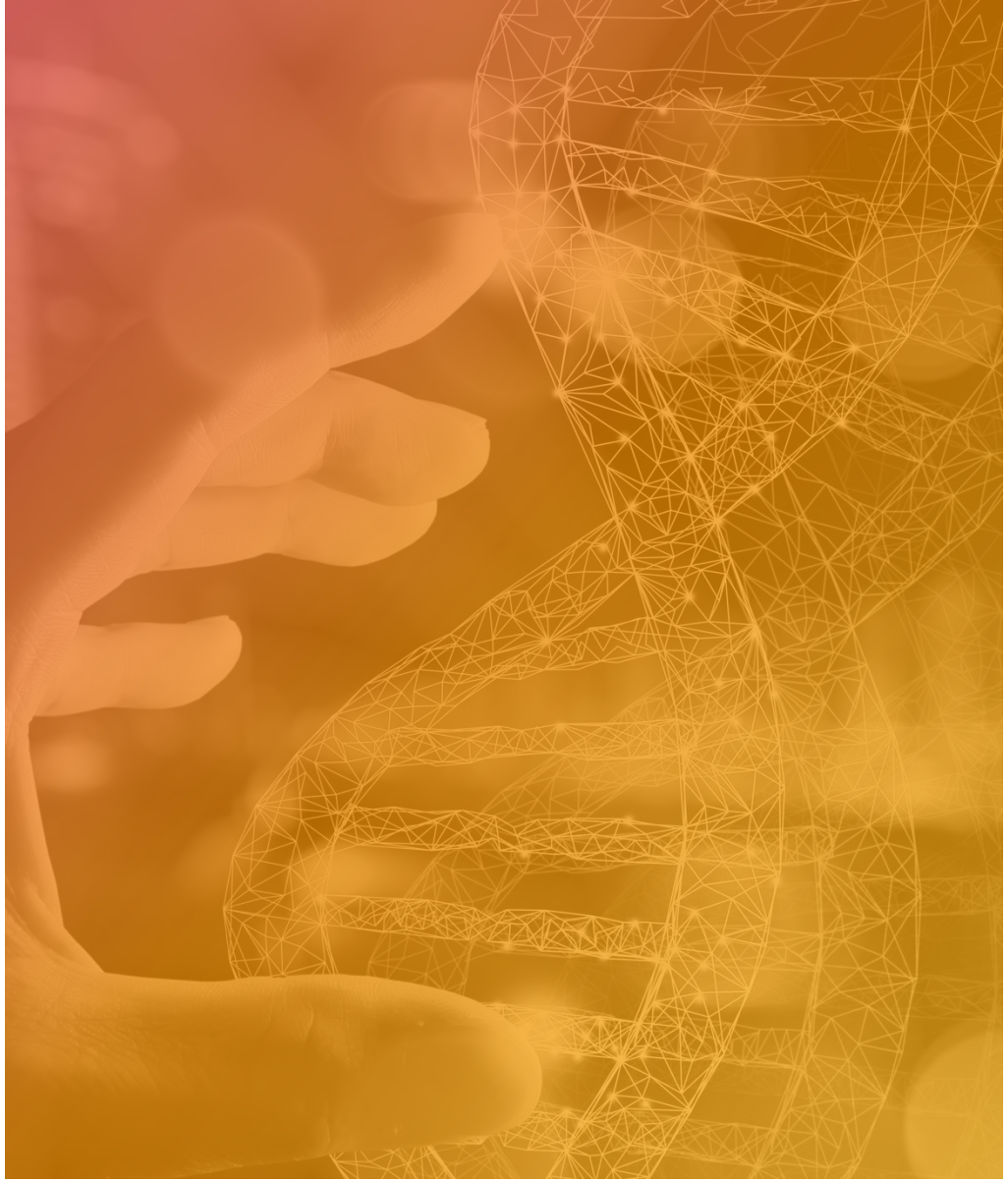
Schwartz brings deep expertise, joining Illumina from MSCI Inc., where she served as Head of Investor Relations and Treasurer. In her role at MSCI, she oversaw relationships with equity and debt investors, sell-side analysts, rating agencies and partner banks, and executed company financing, cash management and capital allocation activities. Schwartz also served as a member of MSCI's Corporate Responsibility Committee, Enterprise Risk Oversight Committee and Investment Committee.

Prior to MSCI, Schwartz spent more than 12 years with Moody's Corporation, most recently as Global Head of Strategic Capital Management and Treasurer. She previously served as Treasurer and as Global Head of Investor Relations and Communications, as well as on Moody's Corporate Development team.

Schwartz also held positions in corporate strategy, corporate treasury and FP&A with Citigroup Inc., and investment banking and merchant banking positions with Legg Mason. She previously served as a Board Director and Chair of the Audit Committee of the National Academy Foundation (NAF), a non-profit national network of education, business and community leaders who work together to ensure high school students are college, career and future ready.

Schwartz holds an MBA from Cornell University and a B.A. from the University of Pennsylvania, both with distinction.

Glossary



Glossary of Acronyms

ACMG - American College of Medical Genetics
AMR - Americas
APAC - Asia-Pacific
APJ - Asia-Pacific & Japan
AU - Australia
BFx - Bioinformatics
BR - Brazil
BWA - Burrow-Wheeler Aligner
CA - Canada
CAGR - Compound Annual Growth Rate
CC - Core Consumables
CDx - Companion Diagnostics
CGP - Comprehensive Genomic Profiling
Chemistry X - X-LEAP SBS
CNV - Copy Number Variants
Cons - Consumables
CT - Computed Tomography
ctDNA - Circulating Tumor DNA
CTO - Chief Technology Officer
CVD - Cardiovascular Disease
DNA - Deoxyribonucleic Acid
Dx - Diagnostics
EBITDA - Earnings Before Interest, Tax, Depreciation, Amortization
EFTA - European Free Trade Association
EMEA - Europe, Middle East, Africa
ESG - Environmental, Social and Governance
EU - European Union
EUA - Emergency Use Authorization
EVP - Executive Vice President
Ex-US - Excluding United States
FAS - Field Application Scientists
FDA - Food & Drug Administration
FFPE - Formalin-fixed, Paraffin-Embedded
FSE - Field Service Engineers
FTE - Full-Time Employees
FY - Fiscal Year
G - Gigabase
G&A - General & Administrative
Gb - Gigabase
GC - Greater China
GDT - Genetic Disease Testing
GEL - Genomics England
HRD - Homologous Recombination Deficiency
HT - High-Throughput
iLASS - Illumina Lab Automation Software Solution
ILMN - Illumina
Infinity - Illumina Complete Long Reads
IP - Intellectual Property
ISO - International Organization for Standardization
IVD - In Vitro Diagnostics
IVDR - In Vitro Diagnostic Regulation
JP - Japan
LDT - Laboratory Developed Test
LIMS - Laboratory Information Management System
LTM - Last Twelve Months
M - Million
M&A - Mergers & Acquisitions
MD - Medical Doctor
MDSAP - Medical Device Single Audit Program
mm - Millimeter
MoH - Ministry of Health
MRD - Minimal Residual Disease
MSI - Microsatellite Instability
ND - Neurological Doctor
NGS - Next-Generation Sequencing
NICU - Neonatal Intensive Care Units
NIPT - Noninvasive Prenatal Testing
Pb – Petabase
PCR - Polymerase Chain Reaction
PhD - Doctor of Philosophy
PICU - Pediatric Intensive Care Unit
PRS - Polygenic Risk Score
PT - Pull-through
R&D - Research and Development
RAS - Rat Sarcomas
RNA - Ribonucleic Acid
ROI - Return on Investment
ROS - Proto-Oncogene Tyrosine-Protein Kinase ROS
RPIP - Respiratory Pathogen Panel
RUGD - Rare & Undiagnosed Genetic Disease
RUO - Research Use Only
SAM - Serviceable Addressable Market
SBS - Sequencing by Synthesis
SD HQ - San Diego Headquarters
SNV - Single Nucleotide Variants
SOC - Standard of Care
SQ - Sequencing
SV - Structural Variation
SW - Software
TAM - Total Addressable Market
TAT - Turnaround Time
Tb - Terabase
TMB - Tumor Mutational Burden
TSO - Tru-Sight Oncology
WES - Whole Exome Sequencing
WGS - Whole Genome Sequencing
WTS - Whole Transcriptome Sequencing

Statement regarding use of non-GAAP financial measures

The company reports non-GAAP results for diluted earnings per share, net income, gross margin, operating expenses, including research and development expense, selling general and administrative expense and legal contingencies, operating income (loss), operating margin, gross profit, other income (expense), constant currency revenue growth, and free cash flow (on a consolidated and, as applicable, segment basis for our Core Illumina and GRAIL segments) in addition to, and not as a substitute for, or superior to, financial measures calculated in accordance with GAAP. The company's financial measures under GAAP include substantial charges such as amortization of acquired intangible assets among others that are listed in the itemized reconciliations between GAAP and non-GAAP financial measures included in this press release, as well as the effects of currency translation. Management has excluded the effects of these items in non-GAAP measures to assist investors in analyzing and assessing past and future operating performance, including in the non-GAAP measures related to our Core Illumina and GRAIL segments. Additionally, non-GAAP net income and diluted earnings per share are key components of the financial metrics utilized by the company's board of directors to measure, in part, management's performance and determine significant elements of management's compensation.

The company encourages investors to carefully consider its results under GAAP, as well as its supplemental non-GAAP information and the reconciliation between these presentations, to more fully understand its business. Reconciliations between GAAP and non-GAAP results are presented in the tables of this release.

# # #

Illumina, Inc.
Results of Operations - Core Illumina Non-GAAP
(Dollars in millions)
(unaudited)

CORE ILLUMINA ITEMIZED RECONCILIATION BETWEEN GAAP AND NON-GAAP RESULTS OF OPERATIONS:

	Fiscal Year					
	2021	2020	2019	2018	2017	2016
GAAP gross profit - Core Illumina (b)	**$ 3,195**	**$ 2,203**	**$ 2,467**	**$ 2,300**	**$ 1,826**	**$ 1,666**
Amortization of acquired intangible assets	27	28	34	35	39	43
Expenses related to COVID-19 **(e)**	—	6	—	—	—	—
Income related to COVID-19 **(f)**	—	(4)	—	—	—	—
Impairment **(c)**	—	—	—	—	18	—
Restructuring **(d)**	—	2	—	—	—	—
Non-GAAP gross profit - Core Illumina **(a)**	$ 3,222	$ 2,235	$ 2,501	$ 2,335	$ 1,883	$ 1,709
GAAP operating profit - Core Illumina	**$ 808**	**$ 580**	**$ 985**	**$ 883**	**$ 606**	**$ 587**
Amortization of acquired intangible assets	28	29	36	37	45	49
Acquisition related expense (gain), net **(l)**	433	158	43	2	(1)	—
Legal contingencies **(j)**	—	—	—	—	—	(9)
Contingent consideration liabilities **(i)**	4	—	—	—	—	—
Expenses related to COVID-19 **(e)**	3	28	—	—	—	—
Income related to COVID-19 **(f)**	(1)	(10)	—	—	—	—
Gain on litigation **(h)**	(2)	(27)	—	—	—	—
Restructuring **(d)**	—	—	12	6	4	—
Performance-based compensation related to GRAIL series B financing **(g)**	—	—	—	—	10	—
Impairments **(c)**	—	—	—	—	23	—
Headquarter relocation	—	—	—	—	—	1
Contingent compensation expense **(k)**	—	—	—	—	—	2
Non-GAAP operating profit - Core Illumina **(a)**	$ 1,273	$ 758	$ 1,076	$ 928	$ 687	$ 630

(a) Non-GAAP gross profit, included within non-GAAP operating profit, is a key measure of the effectiveness and efficiency of manufacturing processes, product mix and the average selling prices of our products and services. Non-GAAP operating profit excludes the effects of the pro forma adjustments as detailed above. Management has excluded the effects of these items in this measure to assist investors in analyzing and assessing past and future operating performance.
(b) Reconciling amounts are recorded in cost of revenue.
(c) Amounts for 2017 include $18 million impairment of an acquired intangible asset and $5 million impairment of in-process research and development.
(d) Amounts consist primarily of employee and lease exit costs, net of adjustments, related to restructuring.

(e) Amounts consist of direct and incremental expenses incurred due to the COVID-19 pandemic, primarily a one-time allowance paid to employees working remotely to help with additional expenses, write-off of unused COVID-19 lab equipment, premium pay for onsite essential workers, employee testing, incremental cleaning, and personal protective equipment.
(f) Amounts consist of direct and incremental income due to the COVID-19 pandemic, payroll-related credits earned in the US and Canada in 2021, and payroll-related credits earned in Singapore in 2020.
(g) Amount represents performance-based stock which vested as a result of the financing.
(h) Amounts consist of gains related to a patent litigation settlement in 2021 and a patent litigation judgment in 2020.
(i) Amount consists of fair value adjustments on our acquisition-related contingent consideration liabilities.
(j) Amount for 2016 represents a reversal of previously recorded expense related to the settlement of patent litigation.
(k) Contingent compensation expense relates to contingent payments for post-combination services associated with an acquisition.
(l) Amount for 2021 consists primarily of Continuation Payments made to GRAIL totaling $245 million and other acquisition-related expenses. Amount for 2020 consists primarily of expenses related to the Continuation Advances and Reverse Termination Fee paid to Pacific Biosciences and expenses related to the pending acquisition of GRAIL. Amounts for 2019 and 2018 consist of expenses related to the Pacific Biosciences acquisition, which was terminated on January 2, 2020. Amount for 2017 consists of change in fair value of contingent consideration.

Illumina, Inc.
Results of Operations - Core Illumina Non-GAAP
(Dollars in millions)
(unaudited)

CORE ILLUMINA ITEMIZED RECONCILIATION BETWEEN GAAP AND NON-GAAP RESULTS OF OPERATIONS AS A PERCENT OF REVENUE:

	LTM Q2 2022 (b)	
GAAP operating profit - Core Illumina	**$ 393**	8 %
Amortization of acquired intangible assets	27	1 %
Contingent consideration liabilities **(c)**	(7)	—
Acquisition-related expenses **(d)**	201	4 %
Legal contingencies **(e)**	609	13 %
Non-GAAP operating profit - Core Illumina **(a)**	$ 1,223	26 %

(a) Non-GAAP operating profit excludes the effects of the pro forma adjustments as detailed above. Management has excluded the effects of these items in this measure to assist investors in analyzing and assessing past and future operating performance.
(b) Last twelve months (LTM) Q2 2022 refers to the twelve months preceding Q2 2022 quarter-end, which includes results from Q3 2021 through Q2 2022.
(c) Amount consists of fair value adjustments on our acquisition-related contingent consideration liabilities.
(d) Amount consists primarily of legal expenses related to our GRAIL acquisition.
(e) Amount consists of legal accruals recorded in Q2 2022, including an accrual of $453 million for the potential fine that the European Commission may impose on us of up to 10% of our consolidated annual revenues and an estimated accrual of $156 million related to the settlement of our litigation with BGI in July 2022.

Illumina, Inc.
Results of Operations - Non-GAAP (continued)
(Dollars in millions)
(unaudited)

ITEMIZED RECONCILIATION BETWEEN GAAP AND NON-GAAP EARNINGS PER SHARE:

	Fiscal Year					
	2021	**2020**	**2019**	**2018**	**2017**	**2016**
GAAP earnings per share attributable to Illumina stockholders - diluted	**$ 5.04**	**$ 4.45**	**$ 6.74**	**$ 5.56**	**$ 4.92**	**$ 3.07**
Non-cash interest expense	0.22	0.29	0.33	0.28	0.20	0.20
Amortization of acquired intangible assets	0.48	0.20	0.24	0.25	0.30	0.33
Expenses related to COVID-19 **(b)**	0.02	0.19	—	—	—	—
Income related to COVID-19 **(c)**	(0.01)	(0.07)	—	—	—	—
Acquisition-related expense (gain)**(d)**	1.04	1.06	0.29	0.01	(0.01)	—
Restructuring **(e)**	—	—	0.08	0.04	0.03	—
Gain on litigation **(f)**	(0.01)	(0.18)	—	—	—	—
Legal contingencies **(g)**	—	—	—	—	—	(0.06)
Contingent compensation expense **(h)**	—	—	—	—	—	0.01
Headquarter relocation	—	—	—	—	—	0.01
Deemed dividend **(i)**	—	—	—	—	—	(0.01)
Performance-based compensation related to GRAIL series B financing **(j)**	—	—	—	—	0.03	—
Strategic investment related gain, net **(k)**	(0.17)	(2.03)	(0.45)	(0.16)	(0.01)	—
Impairments **(l)**	—	—	—	—	0.15	—
Gains on deconsolidation **(m)**	—	—	(0.36)	—	(3.07)	—
Bridge Facility **(n)**	0.05	0.02	—	—	—	—
Contingent consideration liabilities **(o)**	0.03	—	—	—	—	—
(Gain) loss on contingent value right **(p)**	(0.20)	(0.05)	0.01	—	—	—
(Gain) loss on derivative assets **(q)**	(0.17)	0.17	—	—	—	—
Loss on extinguishment of debt **(r)**	0.01	—	—	—	—	—
Incremental non-GAAP tax expense **(s)**	(0.31)	0.02	(0.11)	(0.10)	0.80	(0.17)
Income tax (benefit) provision **(t)**	(0.12)	(0.18)	(0.20)	(0.23)	(0.35)	—
Tax expense related to increase in valuation allowance **(u)**	—	0.42	—	—	—	—
Tax expense (benefit) related to cost-sharing arrangement **(v)**	—	0.19	—	—	—	(0.05)
US Tax Reform **(w)**	—	—	—	0.07	1.01	—
Non-GAAP earnings per share - diluted **(a)**	$ 5.90	$ 4.50	$ 6.57	$ 5.72	$ 4.00	$ 3.33

(a) Non-GAAP earnings per diluted share exclude the effects of the pro forma adjustments as detailed above. Non-GAAP earnings per diluted share is a key component of the financial metrics utilized by the company's board of

directors to measure, in part, management's performance and determine significant elements of management's compensation. Management has excluded the effects of these items in this measure to assist investors in analyzing and assessing our past and future operating performance.

(b) Amounts consist of direct and incremental expenses incurred due to the COVID-19 pandemic, primarily a one-time allowance paid to employees working remotely to help with additional expenses, write-off of unused COVID-19 lab equipment, premium pay for onsite essential workers, employee testing, incremental cleaning, and personal protective equipment.

(c) Amounts consist of direct and incremental income due to the COVID-19 pandemic, payroll-related credits earned in the US and Canada in 2021, and payroll-related credits earned in Singapore in 2020.

(d) Amount for 2021 consist primarily of a gain of approximately $899 million related to the fair value adjustment of our previously held interest in GRAIL, approximately $654 million in day one compensation expense related to the GRAIL acquisition, Continuation Payments made to GRAIL totaling $245 million and other acquisition-related expenses. Amount for 2020 consists primarily of acquisition-related expenses related to the pending acquisition of GRAIL, Continuation Advances and Reverse Termination Fee paid to Pacific Biosciences, and expenses related to the acquisition of BlueBee. Amounts for 2019 and 2018 consist primarily of expenses related to the Pacific Biosciences acquisition which was terminated on January 2, 2020. Amount for 2017 consists of change in fair value of contingent consideration.

(e) Amount consists primarily of employee and lease exit costs related to the restructuring that occurred in Q1 2018 and Q4 2017.

(f) Amounts consist of gains related to a patent litigation settlement in 2021 and a patent litigation judgment in 2020.

(g) Amount represents a reversal of prior year expense related to settlement of patent litigation.

(h) Contingent compensation expense relates to contingent payments for post-combination services associated with an acquisition.

(i) Amount represents the impact of a deemed dividend, net of Illumina's portion of the losses incurred by GRAIL's common stockholders resulting from the company's common to preferred share exchange with GRAIL. The amount was added to net income attributable to Illumina stockholders for purposes of calculating Illumina's consolidated earnings per share. The deemed dividend, net of tax, was recorded through equity.

(j) Amount represents performance-based stock which vested as a result of the financing, net of attribution to noncontrolling interest.

(k) Amounts consist primarily of mark-to-market adjustments and impairments from our strategic investments.

(l) Amount represents impairment of an acquired intangible asset and in-process research and development.

(m) Amount for 2019 consists of the gain recognized as a result of the Helix deconsolidation and a $15 million gain that resulted from the settlement of a contingency related to the deconsolidation of GRAIL in Q1 2017. In Q1 2017, Illumina sold a portion of its interest in GRAIL, resulting in the deconsolidation of GRAIL. Subsequent to the transaction, the company's remaining interest was treated as a cost-method investment.

(n) Amounts consist of expenses related to the bridge facility commitment obtained in advance of the acquisition of GRAIL. We terminated the bridge facility commitment in March 2021, in conjunction with our issuance of term notes.

(o) Amount consists of fair value adjustments on our acquisition-related contingent consideration liabilities.

(p) Amounts consist of fair value adjustments related to our contingent value right received from Helix.

(q) Amount for 2021 consists of a gain recorded on our derivative assets related to the terminated acquisition with Pacific Biosciences as a result of Pacific Biosciences repaying to us $52 million in Continuation Advances. Amount in 2020 consists of fair value adjustments on our derivative assets related to the terminated acquisition with Pacific Biosciences.

(r) Amount consists of loss on extinguishment of our 2021 Convertible Senior Notes, which matured in June 2021.

(s) Incremental non-GAAP tax expense reflects the tax impact related to the non-GAAP adjustments listed above.

(t) Amounts represent tax deductions taken in excess of stock-based compensation cost.
(u) Amount represents discrete tax expense related to the valuation allowance established in Q2 2020 against the deferred tax asset for California research and development credits.
(v) Amount for 2020 represents discrete tax expense related to the finalization of the Altera court case in Q2 2020 which determined stock-based compensation must be included in intercompany cost sharing payments. Amount for 2016 represents the exclusion of stock compensation from prior period cost-sharing charges as a result of a tax court ruling.
(w) Amount for 2018 represents the discrete tax expense associated with updating prior year estimates of the impact of U.S. Tax Reform. Amount for 2017 primarily consists of the provisional estimate of the one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred.

Illumina, Inc.
Results of Operations - Non-GAAP (continued)
(Dollars in millions)
(unaudited)

FREE CASH FLOW:

	Fiscal Year					
	2021	**2020**	**2019**	**2018**	**2017**	**2016**
Calculation of free cash flow:						
Net cash provided by operating activities	$ 545	$ 1,080	$ 1,051	$ 1,142	$ 875	$ 779
Purchases of property and equipment	(208)	(189)	(209)	(296)	(310)	(260)
Free cash flow **(a)**	$ 337	$ 891	$ 842	$ 846	$ 565	$ 519

(a) Free cash flow, which is a non-GAAP financial measure, is calculated as net cash provided by operating activities reduced by purchases of property and equipment. Free cash flow is useful to management as it is one of the metrics used to evaluate our performance and to compare us with other companies in our industry. However, our calculation of free cash flow may not be comparable to similar measures used by other companies.
(b) Net cash provided by operating activities in fiscal 2019 included an $84 million payment of the accreted debt discount related to the conversions of our 2019 Notes.
(c) Excess tax expense of $19 million and tax benefit of $91 million related to stock-based compensation for fiscal 2016 was reclassified from cash used in financing activities to cash provided by operating activities as a result of the retrospective application of ASU 2016-09 adopted in Q1 2017.
(d) Excludes property and equipment recorded under build-to-suit lease accounting, which are non-cash expenditures, of $79 million for fiscal 2017 and $193 million for fiscal 2016.