40th Annual
J.P. Morgan Healthcare Conference

Francis deSouza
President & CEO, Illumina
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) the impact to our business and operating results of the COVID-19 pandemic; (ii) challenges inherent in developing, manufacturing, and launching new products and services, (iii) our ability to further develop and commercialize our instruments, consumables, and products, including Galleri, the cancer screening test developed by GRAIL; (iv) the risks and costs associated with the integration of, and our ability to integrate, GRAIL’s business successfully to achieve anticipated synergies, including the restrictions on integration while we are subject to the European Commission’s order to keep GRAIL separate from us; (v) the risk that disruptions from the consummation of our recent acquisition of GRAIL or any associated legal or regulatory proceedings or obligations will harm our business, including current plans and operations; (vi) potential adverse reactions or changes to business relationships resulting from the consummation of our recent acquisition of GRAIL; (vii) our ability to successfully partner with other companies and organizations to develop new products, expand markets, and grow our business, 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.
OUR MISSION

Improve human health by unlocking the power of the genome
Illumina Sequencing Technology is Leading the Rapidly Growing Genomics Diagnostic Tools Market

We enable clinicians and researchers to comprehensively understand and leverage the genome

1998 Founded

>8,000 Customers

140 Countries

>400K Publications

$4.5B 2021 revenue*

Mid-Teens % Long-term core revenue growth target

*Preliminary
For Research Use Only. Not for use in diagnostic procedures.
Strong Finish to 2021 with 25% Revenue Growth in Q4

CONSOLIDATED RESULTS*

Q4 2021 REVENUE

~$1.190B

25% Year-Over-Year Growth

Record Quarterly Revenue

Record Total Shipments

Record Consumables Shipments for Clinical and Research markets

Record NovaSeq™ Shipments

Record NextSeq™ 1000/2000 Shipments

*All results reflected are preliminary
For Research Use Only. Not for use in diagnostic procedures.
Accelerating Demand for Sequencing Across Markets and Geographies Drove 39% Revenue Growth in 2021

CONсолIDATED RESULTS*

FY 2021 REVENUE

~$4.517B
+39% vs. 2020
+27% vs. 2019

SEQUENCING GROWTH

>40%
Consumables

>75%
Instruments

NON-GAAP OPERATING MARGIN

~23.75%
Consolidated

~27.75%
Core Illumina

RECORD REVENUE ACROSS ALL REGIONS

*All results reflected are preliminary
2021 Shipments Were Highest in Illumina History
Record Shipments Across Sequencing Platforms

**INSTRUMENT PLACEMENTS**

- >3,200 Placements in 2021
- >20,000 Cumulative installed base

**CUSTOMER BASE**

- >8,000 Total Illumina customers
- >50% More new customers added in 2021 vs. 2020/19

- $3B Consumables shipments in 2021
- >80% Recurring revenue\(^1\)

\(^1\)Recurring revenue based on 2021 consumables and services revenue
Record NovaSeq™ 6000 Shipments in 2021
Increasing Adoption of Genomics in Clinical Settings and Rapid Proliferation of Data-Rich Sequencing

Best Year Yet for NovaSeq

>$1.5B NovaSeq instrument and consumable shipments

$1.3M Record average pull-through in 2021

~380 Highest system shipments since launch

NovaSeq™Dx Including China model

Launching 2022

For Research Use Only. Not for use in diagnostic procedures.
Mid-Throughput Shipments Nearly Doubled in 2021
Driving Expanded Footprint with Most Powerful MT Sequencer

~1,175 System shipments in 2021, exceeding 1,000 for first time

>40% Customers in clinical

~2x Greater output than any other on-market MT platform

NextSeq™Dx* Record shipments

Record Year For Mid-Throughput

For Research Use Only. Not for use in diagnostic procedures (except as otherwise indicated).
*For In Vitro Diagnostic Use.
Low-Throughput Platforms Also Set New Record in 2021

36% Increase in shipments vs. 2020

~40% Of new customers are clinical customers

~1,680 System shipments

700 New customers

Record Placements MiniSeq™ and iSeq™ 100

For Research Use Only. Not for use in diagnostic procedures.
Guiding to 14%–16% Consolidated Revenue Growth for 2022

**Revenue**
- $5.15B–$5.24B

**Growth**
- 14%–16%

**Non-GAAP EPS**
- $4.00–$4.20

**Non-GAAP Operating Margin**
- 15.5%–16.0%

---

**GRAIL**

- Revenue
  - $70M–$90M

**CORE ILLUMINA**

- Revenue Growth
  - 13%–15%
  - Sequencing: ~15%  
  - Sequencing Consumables: ~18%  
  - Sequencing Instruments: ~10%

- Non-GAAP Operating Margin
  - ~28%

---

1Reflects an estimated full year tax rate of ~19% and ~$3.75 of dilution associated with GRAIL
2Includes intercompany revenue of ~$25M at the midpoint of revenue guidance, which is removed on a consolidated basis
3At midpoint of revenue guidance
Expanding Our Key Existing Markets

ONCOLOGY

REPRODUCTIVE HEALTH

GENETIC DISEASE

RESEARCH / APPLIED
Illumina is a Global Leader in the Large and Growing Clinical Genomics Market

> 4,000 Clinical customers globally

70 Approvals from

55 Regulatory agencies

~$1.9B Clinical market revenue globally

> 1 billion Covered lives globally

2 billion GROWING TO Covered lives by 2026
Announcing Optum and Illumina Collaboration to Accelerate Large-Scale Demonstration of Genomic Utility

Bringing transformational genomics into clinical practice faster

Current studies underway in:
- Cardiovascular disease
- Rare genetic disease with Whole Genome Sequencing
- Oncology with Comprehensive Genomic Profiling

Potential future areas of study:
- Organ transplants
- Polychronic patients
- Hematological cancers
Oncology Testing is a $75B Market with Only 4% Penetration
Genomics Will Improve Care Across the Cancer Journey

**EARLY DETECTION**
- $46B 2035 TAM
- <1% UTILIZATION

**THERAPY SELECTION**
- $14B 2035 TAM
- <15% UTILIZATION

**MONITORING**
- $15B 2035 TAM
- ~1% UTILIZATION
GRAIL’s Galleri® is the First of its Kind Multi-Cancer Early Detection Test

ONLY available multi-cancer (>50 cancer types) early detection blood test

67% Stage I–III sensitivity in deadliest cancers

44% Positive predictive value

0.5% False positive rate

89% Cancer signal origin accuracy

PREDICTED TO AVERT 1 in 3 cancer deaths within 5-year timeframe


Galleri® is Off to a Strong Start as GRAIL Pioneers Early Detection Market

11 Employers offering test

8 Health system adoptions

>1,500 Providers prescribed test in 2021

LARGE SCALE CLINICAL STUDIES TO GENERATE BROAD CLINICAL EVIDENCE

8 Clinical studies underway or planned

~325K Participants

5 Years of data to date
Upcoming GRAIL Monitoring Offering Will Aim to Address Additional Large Unmet Patient Needs

MRD
Minimal Residual Disease
Detect cancer after diagnosis and treatment

2023
Planned Launch

~2-3x
Reduction in turn-around time vs. tissue-based technologies

>50
Applicable cancer types

ZERO
Tumor biopsy required

14
Biopharma engagements
Illumina is Leading $14B Opportunity in Therapy Selection
Market Projected to Grow >20% Over Next 3 Years

**ONCOLOGY TESTING SERVICE PROVIDERS**

- **>900** Customers
- **~1M** Tests in 2021
- **up to 50%** Projected growth by our customers

**ILLUMINA TRUSIGHT™ ONCOLOGY COMPREHENSIVE**

- Upcoming CE-IVD and US IVD approval
- Based on content of our research assay TSO 500
- **79%** 2021 Growth
- **11** Unique CDx partners including: Roche, Boehringer Ingelheim, Bristol Myers Squibb, Qiagen, Merck

**IVD DEVELOPMENT PARTNERS**

- **41** Tests in development
- **34** IVD development partners including: Boehringer Ingelheim, Bristol Myers Squibb, Roche, Qiagen, Merck

NEW CDx PARTNER
NEW IVD DEVELOPER
Expanding Coverage and Utilization
Drive Noninvasive Prenatal Testing (NIPT) Growth

GROWING ACCESS FOR REMAINING
90% OF BIRTHS CURRENTLY NOT COVERED

70M Accessible births

~7M Currently covered

2022 COVERAGE DECISIONS INCLUDING
GERMANY, REGIONS OF ITALY AND SPAIN

OPPORTUNITY FOR GREATER UPTAKE IN US

42%

Expand usage of NIPT in US
Via education and awareness

VeriSeq™ NIPT v2
received IVDR approval in 2021

~30% Growth rate in 2021

38 Countries registered

Anticipated First Distributable US IVD
TruSight™ NIPT IVD expected in 2023

For In Vitro Diagnostic Use. Not available in all regions and countries.
Genetic Disease Testing is a Fast-Growing Market Representing Significant, Underpenetrated Opportunity

**WES/WGS COVERED LIVES**

>450M

<1% Penetration

~45% 2021 growth in our genetic disease testing market

**ILLUMINA PROVIDES BEST IN CLASS BENEFITS**

- As little as 13.5hr turnaround time
- 2x Improvement vs. usual care
- ~90% lower cost than long read WGS for GDT
- 2x Increase in clinical market accounts offering WGS vs. 2020

**MEDICAID COVERAGE EXPANDING**

- MICHIGAN
- OREGON
- MARYLAND
- CALIFORNIA 2022

**PHILANTHROPY**

iHope Genetic Health

WGS access for tens of thousands of low-and middle-income patients globally
Catalyzing New Markets

INFECTIOUS DISEASE

DRUG DISCOVERY

PROTEOMICS

REPRODUCTIVE HEALTH

GENETIC DISEASE

ONCOLOGY

RESEARCH
COVID-19 Surveillance Establishes Foundation for Global Genomic Epidemiology Markets

Pathogen Infrastructure Broadens Global Reach of Sequencing Applications

$165B Incremental 7-10 year global funding for pan-pathogen surveillance

$60M Committed to global Pathogen Genomics Initiative

>75% Of COVID data submissions are on Illumina instruments

117 COUNTRIES providing sequence data from Illumina instruments

124 New customers
Illumina is Well-Positioned to Address Large Unmet Need for Genomics-Based Drug Discovery

**LARGE OPPORTUNITY**

> $2B  
Market size for Genomics in Drug Discovery

> $123B  
Annual R&D spend in Drug Discovery

> 2×  
Success rate increase with genomics

Complex diseases like ALS, Parkinson's and Alzheimer's require treatments

**ILLUMINA DRUG DISCOVERY PLATFORM**

- NovaSeq™ 6000
- DRAGEN™ ICA
- AI-based genome interpretation

**PHARMA CUSTOMERS**
- AMGEN
- REGENERON
- AstraZeneca

**LARGE COHORTS**

- Nashville Biosciences
- NEW PARTNER

For Research Use Only. Not for use in diagnostic procedures.
Proteomics is Expanding Research Markets with NGS Emerging as Preferred Read Out

Proteomics TAM >$50B

10X GENOMICS BD Biosciences BioLegend®
mission bio nanoString Olink

illuminæ
Co-Developed Proteomics Workflow Will Address a Range of Disease Areas from Cardio to Neuro-Degenerative to Cancers

ULTRA-HIGH THROUGHPUT AND ULTRA-HIGH PLEXITY WORKFLOW SOLUTION

- Lowest cost per sample
- Available on Illumina high throughput platforms
- Integrated workflow (genomic/proteomic analysis)
- Will address >10,000 protein targets

2024 PLANNED LAUNCH
Driving Growth Through Innovation

ILLUMINA INNOVATION VECTORS
Breakthrough Chemistry X Sets New Industry Benchmark

- 2x Faster
- 2x Longer reads
- 3x Accuracy increase

- New IP filings
- New large-scale manufacturing facility

GROUNDBREAKING IMPROVEMENTS FOR ALL FUTURE PLATFORMS
Chemistry X is the World’s Fastest, Highest Quality, and Most Robust SBS Chemistry

**X-NUCLEOTIDES**

- X-BLOCK, X-LINKER & X-DYES
  - Most resistance to heat
  - 50x reduction in hydrolysis
  - 3x faster block cleave
  - Greatly reduced prephasing / phasing errors

**X-POLYMERASE**

Engineered to incorporate X-Nucleotides faster and with higher fidelity than any NGS polymerase

Leveraging The World’s Largest Proprietary Pipeline of SBS Technology to Engineer Novel Dyes, Linkers, Blocks, and Tailored Polymerases
Illumina Machine Learning and DRAGEN™ Graph Technology Set New Standard for NGS Data Analysis

**FASTEST, LOWEST COST AND MOST ACCURATE ANALYSIS EVER**

2x Improved accuracy

40x Faster alignment & variant calling irrespective of graph size

99.83% Score in Precision FDA Truth Challenge for most accurate human genome variant calling

Based on 99.83% F1 score using PrecisionFDA Truth Challenge Benchmark Regions defined by FDA and DRAGEN™ 3.10

<table>
<thead>
<tr>
<th>HUMAN GENOME ALIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illumina Mapping</td>
</tr>
<tr>
<td>BWA Mapping</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SNV, CNV, SV VARIANT CALLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illumina</td>
</tr>
<tr>
<td>Other variant callers</td>
</tr>
</tbody>
</table>

Only graph that can support DNA, RNA, and methylation

**KEY INNOVATIONS**

New high-efficiency DRAGEN™ Graph technology with parallel compute architecture

Most scalable implementation of machine learning

Novel phased alternate contigs graph

Novel Bayesian theory approach to machine learning applied to sequencing data

**ILLUMINA DRAGEN™ 3.10**

LAUNCHING Q1 2022

For Research Use Only. Not for use in diagnostic procedures.
Announcing Infinity High Performance Long Read Technology on Existing Illumina Platforms

10× throughput versus legacy long read technology
Accelerate access to remaining 5% of genic regions
Up to 10kb read lengths
90% less DNA input required compared to current long read technology

2H 2022 EARLY ACCESS LAUNCH

"This changes the short vs. long read debate and more importantly, changes how researchers and patients can get critical answers for rare disease."

Euan Ashley, MB ChB, Ph.D.
Stanford Medicine

"This technology can take us the rest of the way to the full genome, and with the speed, scale, and compatibility with existing Illumina, we could rapidly onboard this workflow."

Shawn Levy, Ph.D.
Discovery Life Sciences / Hudson Alpha

Example STRC gene (23,000 bp) Demonstrating 10Kb Infinity Reads
OUR MISSION

Improve human health by unlocking the power of the genome

Join us for our Customer Event and Investor Day
Illumina, Inc.
Preliminary Results of Operations – Non-GAAP
(unaudited)

Our performance and financial results are subject to risks and uncertainties, and actual results could differ materially from the preliminary results set forth below. Some of the factors that could affect our financial results are included from time to time in the public reports filed with the Securities and Exchange Commission, including Form 10-K for the fiscal year ended January 3, 2021 filed with the SEC on February 17, 2021, Form 10-Q for the fiscal quarter ended April 4, 2021, Form 10-Q for the fiscal quarter ended July 4, 2021, and Form 10-Q for the fiscal quarter ended October 3, 2021. We assume no obligation to update any forward-looking statements or information.

The preliminary unaudited financial information included in this table is approximate and subject to change. We will report our fourth quarter and full year fiscal 2021 results in February.

<table>
<thead>
<tr>
<th>Fiscal Year 2021</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary GAAP operating margin</td>
<td>(3.36)%</td>
</tr>
<tr>
<td>Amortization of acquired intangible assets</td>
<td>1.66</td>
</tr>
<tr>
<td>Acquisition-related expenses (b)</td>
<td>25.22</td>
</tr>
<tr>
<td>COVID-19 expenses, net (c)</td>
<td>0.07</td>
</tr>
<tr>
<td>Contingent consideration liabilities (d)</td>
<td>0.20</td>
</tr>
<tr>
<td>Gain on litigation (e)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Preliminary non-GAAP operating margin (a)</td>
<td>23.75%</td>
</tr>
</tbody>
</table>

The preliminary unaudited financial information included in this table is approximate and subject to change. We will report our fourth quarter and full year fiscal 2021 results in February.
The preliminary unaudited financial information included in this table is approximate and subject to change. We will report our fourth quarter and full year fiscal 2021 results in February.

<table>
<thead>
<tr>
<th>Core Illumina Reconciliation Between Preliminary GAAP and Non-GAAP Operating Margin:</th>
<th>Fiscal Year 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary GAAP operating margin – Core Illumina</td>
<td>17.34%</td>
</tr>
<tr>
<td>Amortization of acquired intangible assets</td>
<td>0.61</td>
</tr>
<tr>
<td>Acquisition-related expenses (b)</td>
<td>9.57</td>
</tr>
<tr>
<td>COVID-19 expenses, net (c)</td>
<td>0.07</td>
</tr>
<tr>
<td>Contingent consideration liabilities (d)</td>
<td>0.20</td>
</tr>
<tr>
<td>Gain on litigation (e)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Preliminary non-GAAP operating margin - Core Illumina (a)</td>
<td>27.75%</td>
</tr>
</tbody>
</table>

The preliminary unaudited financial information included in this table is approximate and subject to change. We will report our fourth quarter and full year fiscal 2021 results in February.

(a) Non-GAAP operating margin 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, including in the non-GAAP measure relating to our Core Illumina segment.

(b) Amount consists primarily of acquisition-related expenses related to the acquisition of GRAIL.

(c) Amount consists of direct and incremental expenses incurred, partially offset by direct and incremental income, due to the COVID-19 pandemic.

(d) Amount consists of fair value adjustments for contingent consideration liabilities related to acquisitions.

(e) Amount consists of a gain related to a patent litigation settlement.
Illumina, Inc.
Reconciliation of Non-GAAP Financial Guidance
(unaudited)

Our future performance and financial results are subject to risks and uncertainties, and actual results could differ materially from the guidance set forth below. Some of the factors that could affect our financial results are included from time to time in the public reports filed with the Securities and Exchange Commission, including Form 10-K for the fiscal year ended January 3, 2021 filed with the SEC on February 17, 2021, Form 10-Q for the fiscal quarter ended April 4, 2021, Form 10-Q for the fiscal quarter ended July 4, 2021, and Form 10-Q for the fiscal quarter ended October 3, 2021. We assume no obligation to update any forward-looking statements or information.

RECONCILIATION BETWEEN GAAP AND NON-GAAP DILUTED EARNINGS PER SHARE GUIDANCE:

<table>
<thead>
<tr>
<th>Description</th>
<th>Fiscal Year 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated GAAP diluted earnings per share</td>
<td>$3.03 - $3.23</td>
</tr>
<tr>
<td>Amortization of acquired intangible assets</td>
<td>1.05</td>
</tr>
<tr>
<td>Incremental non-GAAP tax expense (b)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Consolidated non-GAAP diluted earnings per share (a)</td>
<td>$4.00 - $4.20</td>
</tr>
</tbody>
</table>

(a) Non-GAAP diluted earnings per share exclude the effect of the pro forma adjustments as detailed above. Non-GAAP diluted earnings per 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) Incremental non-GAAP tax expense reflects the tax impact related to the non-GAAP adjustment listed.
## RECONCILIATION BETWEEN GAAP AND NON-GAAP OPERATING MARGIN GUIDANCE:

<table>
<thead>
<tr>
<th></th>
<th>Fiscal Year 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated GAAP operating margin</strong></td>
<td>12.3% - 12.8%</td>
</tr>
<tr>
<td>Amortization of acquired intangible assets</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Consolidated non-GAAP operating margin (a)</strong></td>
<td>15.5% - 16.0%</td>
</tr>
<tr>
<td><strong>Core Illumina GAAP operating margin</strong></td>
<td>27.5%</td>
</tr>
<tr>
<td>Amortization of acquired intangible assets</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Core Illumina non-GAAP operating margin (a)</strong></td>
<td>28.0%</td>
</tr>
</tbody>
</table>

(a) Non-GAAP operating margin excludes the effects of the pro forma adjustment as detailed above. Management has excluded the effects of this item in this measure to assist investors in analyzing and assessing past and future operating performance, including in the non-GAAP measure relating to our Core Illumina segment.

## RECONCILIATION BETWEEN GAAP AND NON-GAAP TAX RATE GUIDANCE:

<table>
<thead>
<tr>
<th></th>
<th>Fiscal Year 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated GAAP tax rate</strong></td>
<td>22.0%</td>
</tr>
<tr>
<td>Incremental non-GAAP tax expense (b)</td>
<td>(3.0)</td>
</tr>
<tr>
<td><strong>Consolidated non-GAAP tax rate (a)</strong></td>
<td>19.0%</td>
</tr>
</tbody>
</table>

(a) Non-GAAP tax rate excludes the effect of the pro forma adjustment as detailed above. Management has excluded the effect of this item in this measure to assist investors in analyzing and assessing past and future operating performance.

(b) Incremental non-GAAP tax expense reflects the tax impact related to the non-GAAP adjustment listed above in our "Reconciliation Between GAAP and Non-GAAP Diluted Earnings Per Share Guidance".