Source Book

November 2018

illumina®

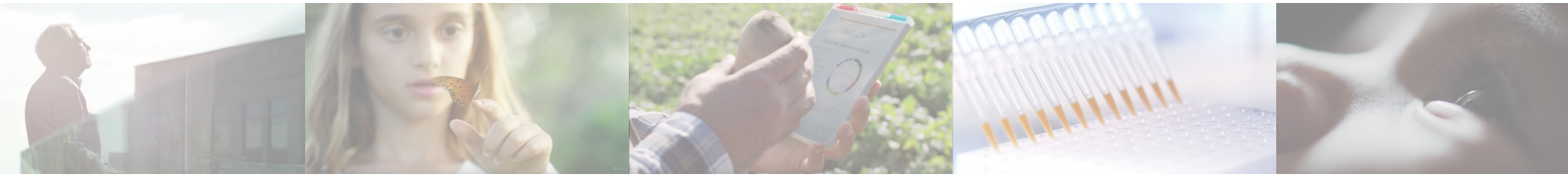
This “source book” is intended to pull together information to help you learn about Illumina’s product offering, strategy and historic performance. We hope this will be a helpful resource, but of course, there is no substitute for our SEC filings, and the reader should always refer to the latest disclosures including press releases and investor presentations available on our Investor Relations website.

As you get to know Illumina, please do not hesitate to reach out if you have questions or any feedback. In the meantime, and on behalf of the management team here at the company, thank you for your interest in Illumina.

Jacquie Ross, CFA
Vice President, Investor Relations
Illumina

Email: jross2@illumina.com
Cell: (408) 594-9328

ILLUMINA'S MISSION



To improve human health
by unlocking the power
of the genome.

TABLE OF CONTENTS

ABOUT ILLUMINA

As a startup, Illumina aspired to transform human health. Our initial products enabled researchers to explore DNA at an entirely new scale, helping them create the first map of gene variations associated with health, disease, and drug response. Every breakthrough opened up a new world, and showed us how much further there is to go.

While the rate of progress is rapidly accelerating, we are only beginning to understand the clinical significance of the genome. What causes a cancer cell to mutate? What is the origin of a puzzling disease? Is it possible to prevent the next outbreak? Or safeguard the world's food supply? These are just a few of the challenges that inspire us to push the boundaries of our imagination.

Today we are a global leader in genomics – an industry at the intersection of biology and technology. At the most fundamental level, we enable our customers to read and understand genetic variations. We strive to make our solutions increasingly simple, more accessible, and always reliable. As a result, discoveries that were unimaginable even a few years ago are now becoming routine – and are making their way into patient treatment.

Illumina Milestones	Genomic Milestones
April 1998 Illumina is founded	
October 1999 Jay Flatley becomes President and CEO	
July 2000 Illumina completes its IPO	
	April 2003 Human Genome Project maps the human genome
 *Genome Analyzer*	**February 2005** 454 Life Sciences launches first NGS sequencer
	August 2006 Genomics and Personalized Medicine Act of 2006
November 2006 Illumina acquires Solexa	
	November 2007 23andMe offers direct-to-consumer genetic testing
	May 2008 Genetic Information Non-Discrimination Act
January 2010 Announces HiSeq™ 2000 and $10,000 genome	
	January 2011 DNA sequencing saves first child
November 2013 MiSeq™Dx becomes first FDA-cleared NGS system	 *Nicholas Volker*
January 2014 Announces HiSeq X™ and $1,000 genome	
July 2016 Francis deSouza becomes President and CEO	
January 2017 Introduces NovaSeq™ with path to $100 genome	
April 2017 Launches CE-IVD marked VeriSeq™ NIPT Solution	

INSTALLED BASE AND CUSTOMER EXAMPLES

BROAD INSTITUTE

A leading academic research center using genomics to advance the understanding and treatment of human disease.

FOUNDATION MEDICINE

Develops and sells a portfolio of genomic tests, including the FDA-approved FoundationOne CDx that detects genetic mutations and TMB.

wellcome sanger institute

A premier center of genomic discovery, leading collaborations across the globe.

CENTOGENE
THE RARE DISEASE COMPANY

A global leader in genetic diagnostics for rare hereditary diseases with testing samples from over 105 different countries.

Berry Genomics 贝瑞基因

A Chinese prenatal genetic testing and diagnostics company that has a partnership with Illumina for CFDA approved NIPT kit.

ancestry

Discovers genealogy and geographic origins. Samples are processed by Illumina and Quest Diagnostics.

Over 11,000 Systems Placed Globally

FIND
Because diagnosis matters

FIND India focuses on evaluation and demonstration studies of new diagnostic tools that FIND co-develops, supporting the Revised National Tuberculosis Control Program by building programmatic capacity for genome sequencing in India.

TEMPUS

A technology company that enables physicians to deliver personalized cancer care for patients through its platform. Also provides genomic sequencing services and data analysis to empower physicians.

WEGENE

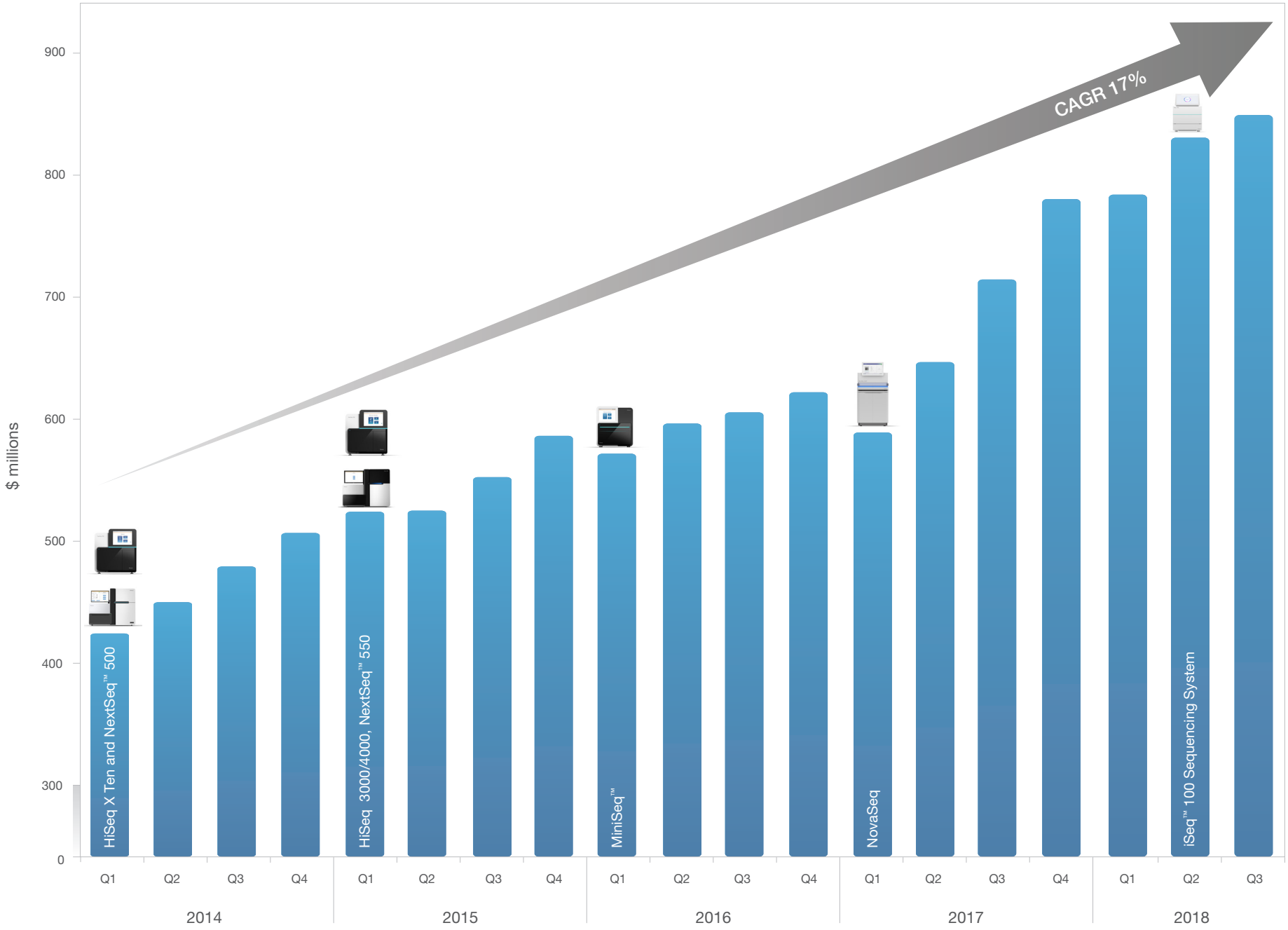
A personal genomics company that has a platform providing personal genetic testing and analysis services. Announced a collaboration to equip its labs with Illumina microarray technologies.

SELECT CUSTOMERS BY SEGMENT

Research | Translational | Clinical | DTC

Note: Select customer logos and descriptions are included with their respective approvals.

REVENUE GROWTH



Note: Select system launches indicated above.

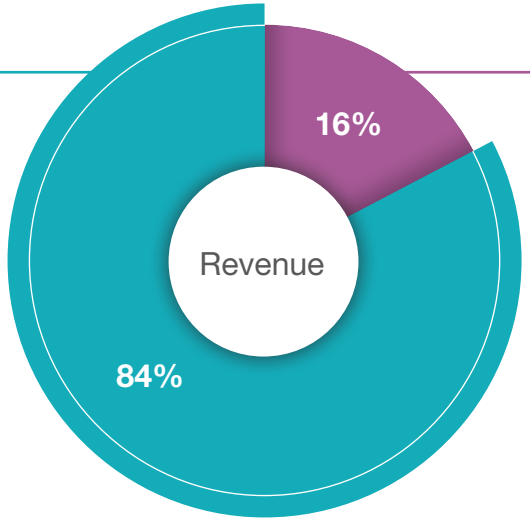
ILLUMINA'S BUSINESS

Illumina's revenues are comprised of two distinct genomic technologies: sequencing and microarrays.

SEQUENCING

When to choose sequencing?

- For analyses of large panels, exomes, or whole genomes
- When the targeted DNA region is not fully known
- When high coverage or "deep sequencing" is required
- When a wide range of applications, from basic science to clinical diagnostics, is required



MICROARRAYS

When to choose microarrays?

- For interrogation of known variants (e.g., single nucleotide polymorphisms)
- For discovery and association in common variations (e.g., polygenic risk scores, genome wide association studies)
- When an answer is required quickly
- When lower cost than sequencing is required

Note: Revenue as of Q318.

HISTORY OF ILLUMINA'S SEQUENCING INNOVATION

2007– 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018

High-throughput

Genome Analyzer

Introduced sequencing-by-synthesis (SBS)

HiSeq 2000

Enabled the $10,000 genome

HiSeq 2500

Allowed for Rapid Run Mode to meet higher throughput needs

HiSeq X Ten

Enabled the $1,000 genome

HiSeq 3000/4000

Significantly increased data output

NovaSeq

Most powerful sequencer that is expected to enable the $100 genome

Mid-throughput

NextSeq 500

First benchtop to be powered by 2-channel SBS

NextSeq 550

Combined microarray scanning with NGS

NextSeq™ 550Dx

FDA-regulated and CE-IVD marked for clinical research and IVD assays

Low-throughput

MiSeq™

Benchtop sequencer, gave more scientists access to NGS

MiSeqDx[1]

The first NGS platform to be FDA cleared for IVD testing

MiniSeq

Made NGS simpler (integrated reagent cartridge), smaller, and more accessible

iSeq 100

Most compact NGS system for under $20k

[1] In August 2018, MiSeqDx sequencing system received the approval certificate from the China National Drug Administration (CNDA).

SEQUENCING SYSTEMS AND KEY APPLICATIONS OVERVIEW

	Large WGS (human, plant, animal)	Small WGS (microbe, virus)	Exome Sequencing	Targeted Gene Sequencing	Whole-Transcriptome Sequencing	Gene Expression Profiling with mRNA-Seq	Targeted Gene Expression Profiling
High-throughput							
NovaSeq • Broadest range of applications • Enables lowest price per sample	●		●		●		
HiSeq X Five/Ten • Enabled the $1,000 Genome	●						
HiSeq 2500/4000 • Production-scale sequencing			●		●		
Mid-throughput							
NextSeq 500/550 • Flexible output options (mid and high)		●	●	●	●	●	
Low-throughput							
MiSeq • First benchtop sequencer		●		●			
MiniSeq • <1 day turnaround time		●		●			●
iSeq 100 • Most affordable sequencer		●		●			

Note: Only key applications highlighted, which does not reflect each system's entire set of capabilities.

SEQUENCING PORTFOLIO DETAILS

	Instrument Price	Approx $ Price/Gb	Max Output per Run[2]	Max Read Length	Max Reads per Run[2]	Time on Max Runs	Pull-Through Guidance	Flow Cell Technology	SBS Channels	Installed Base[4]
High-throughput										
NovaSeq S4	$985K	$7.00[1] -10.30	6 Tb	2 X 150 bp	20 billion	~44 hrs	NA	Patterned	2	~285
NovaSeq S2	$985K	$13	2 Tb	2 X 150 bp	6.6 billion	~36 hrs	NA	Patterned	2	
NovaSeq S1	$985K	$18	1 Tb	2 X 150 bp	3.2 billion	~25 hrs	NA	Patterned	2	
NovaSeq SP[5]	$985K	$20	500 Gb	2 X 250 bp	1.6 billion	~25 hrs	NA	Patterned	2	
HiSeq X	$1.0M/$1.2M	$7	1.8 Tb	2 X 150 bp	6 billion	< 3 days	NA	Patterned	2	~2,300[6]
HiSeq 4000	$900K	$23	1.5 Tb	2 X 150 bp	5 billion	~3.5 days	NA	Patterned	4	
HiSeq 2500	$690K	$35	1 Tb	2 X 150 bp[3]	4 billion	~6 days[3]	NA	Random	4	
Mid-throughput										
NextSeq	$275K	$39	120 Gb	2 X 150 bp	400 million	~30 hrs	$100K-$150K	Random	2	~2,400
Low-throughput										
MiSeq	$99K	$93	15 Gb	2 X 300 bp	25 million	~56 hrs	$40K-$45K	Random	4	~6,000
MiniSeq	$49.5K	$200	7.5 Gb	2 X 150 bp	25 million	~24 hrs	$20K-$25K	Random	2	~600
iSeq	$19.9K	$500	1.2 Gb	2 X 150 bp	4 million	~18 hrs	NA	Patterned	1	NA

[1] Based on purchase of > 5 instruments.
[2] Assuming two flow cells per run on NovaSeq and HiSeq Series Systems.
[3] 2 X 251 bp and 60hr run time available in rapid run mode.
[4] As of end of 2017.
[5] SP flow cell is coming soon.
[6] Combined HiSeq family.

MICROARRAYS OVERVIEW

Background

What is a microarray?

A microarray, or array, is a DNA chip that can be used to "genotype" multiple regions of a genome.

What is genotyping?

The process of determining genetic variants in the genetic make-up of the DNA.

How are array technologies used?

Array technologies continue to be used in a wide range of applications, including:

- Consumer genomics and health screening
- Agrigenomics
- Research (e.g., methylation testing)

Case Study: NEOGEN

Who?

Neogen genotypes more than 10,000 samples per day for livestock producers worldwide.

How do they use microarrays?

Neogen developed dozens of custom Infinium arrays to evaluate close to 50k markers, which allows livestock producers and breeders to selectively breed for superior animals.

What's the impact?

This is especially important when the desired increases in genetic improvement are for traits that are not highly heritable, such as daughter pregnancy rate, for selecting the best dairy cattle bulls. The results for animal breeders include the elimination of genetic-based diseases.

Note: The case study is included with customer approval.

Overview

iScan

The Infinium workflow is run on the iScan system and is a highly robust, highly scalable end-to-end solution with automation compatibility.

- Starter Kit configurations to support the workflow and meet throughput targets.
- Optional Tecan liquid handling robot and Autoloader to support walk-away capabilities.
- Optional Infinium LIMS to implement positive sample tracking and workflow enforcement.

Key Microarrays

Illumina's portfolio of arrays can analyze from 100 to 5M variants. Select arrays below:

Global Screening Array (GSA)

Built for consumer genomics and clinical research in translational and precision medicine efforts

Infinium XT

Customizable with flexible content, ideal for agrigenomics and low plexity consumer genomics

Methylation EPIC Beadchip

Comprehensive genome-wide methylation coverage for research of genetic disease and oncology

In Q318, microarrays represented about 16% of revenues. Strong demand from consumer genomics will likely contribute to continued growth of arrays.

Genotyping Advantages

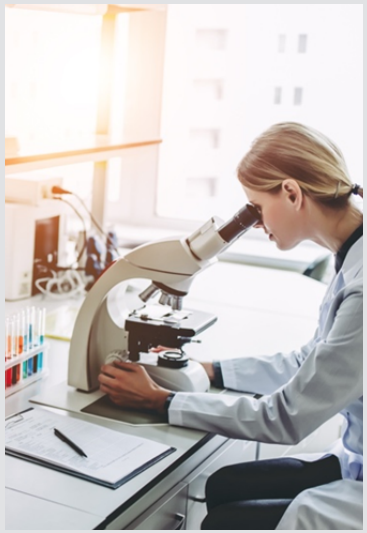
- Per sample cost
- Sample throughput
- Robust data management solutions
- Statistical power
- Mature technology

FOCUS AREAS

We are focused on a number of key areas where we believe genomics will increasingly impact patient lives.

Non-Invasive Prenatal Testing (NIPT)

Rare and Undiagnosed Disease (RUGD)



Oncology

Consumer Genomics

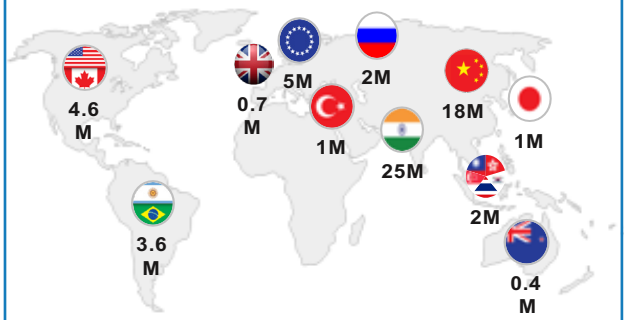
Population Genomics

FOCUS AREA: NON-INVASIVE PRENATAL TESTING (NIPT)

Opportunity

Non-invasive prenatal testing (NIPT) is a way of examining fetal DNA by taking a sample of blood from a pregnant woman. With ~211M babies born globally each year, NIPT represents an exciting global opportunity with many geographies still in early stages of adoption.

World Birth Rates[1]



Strategy

Illumina hopes to facilitate the expansion of coverage to include average risk and enter new geographic markets. Additionally, Illumina is expanding the utility of screening by expanding the limits of NIPT technology to test for genetic abnormalities across the genome.[2]

Case Study

Melody and Ruby's NIPT story[3]

Discussed Risks

Melody, who was pregnant at age 40, discussed with her doctor the genetic malformation risks.

Selected NIPT

Melody chose to do a NIPT.

Recieved Results

The doctor informed Melody her test came back positive for Trisomy 21, or Down Syndrome.

Planned Ahead

Melody and her family were able to better prepare for additional tests during the pregnancy as well as how to care for their daughter, Ruby.

Outcome

The whole family loves going hiking, including Ruby.

Notable Developments

Feb 2018: Illumina and Harvard Pilgrim partner to provide NIPT to average risk pregnancies.

July 2018: ACOG withdraws practice bulletin 640 that questioned utility of average-risk NIPT.

Aug 2018: BCBS TN expands coverage to all pregnant women (~2.5M lives).

Sept 2018: Florida Medicaid (~3.4M lives) becomes the first state to cover NIPT in all pregnant women.

Oct 2018: Minnesota Medicaid (~2.3M lives) and BCBS NC (~1M lives) expands coverage to all pregnant women.

Oct 2018: Early results from Dutch TRIDENT-2 show 78% of women asked chose a screen with genome wide information.

Key Drivers

Reimbursement

In the US, 95% of high-risk pregnancies and 43% of average-risk pregnancies are covered. In the EU, the Netherlands and Belgium cover NIPT for all pregnancies.

Regulatory Approval

With a CE-IVD mark in 2017, VeriSeq NIPT became accessible to 5M annual births. Illumina plans to submit NIPT IVD in up to 12 countries (~30M annual births) and will continue to drive towards IVD in the US as well.

Clinical Value of NIPT

Most NIPT today screen for trisomy 21, 18, 13, X and Y. New solutions are driving expansion of testing to all autosomes and microdeletions. Expanding testing provides more clinical utility to the physician, especially for sub-chromosomal events that are equally prevalent independent of maternal age.

[1]World Bank population data, World Bank birth rate (June 2017)
[2]Abnormalities smaller than chromosomal have not been shown to be linked to maternal age and therefore the prevalence is equal across the population.
[3]The case study is included with patient approval.

FOCUS AREA: RARE AND UNDIAGNOSED DISEASES (RUGD)

Opportunity

Whole genome sequencing can help better diagnose and treat rare, undiagnosed or genetic diseases as early transitions to clinical WGS show promising outcomes. Illumina's technology can have a meaningful impact on patient lives and we believe this market will serve as an important proof point for the need to perform WGS versus panels or even exomes as a first-tier test.

>350M RUGD Patients Worldwide[1]

Average 5–7 Years to Diagnosis in the US & UK[2]

Genetic diseases are responsible for:

19% PICU deaths[3]

50% admissions to pediatric long-term care[4]

60% end-of-life admissions[4]

Case Study

Two brothers' successful diagnosis[5]

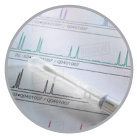
Two brothers (ages 4 and 11) presented with similar phenotypes of profound intellectual disability and seizures.

iHope

Testing performed through Illumina's iHope philanthropic program.

Received Results

Variant identified in a potential new disease gene, PIGS, in both brothers.



GeneMatcher

Treatment identified

Through an international "matchmaking" program, this new disease was confirmed and vitamin B was identified as a treatment.

Outcome

Both brother's seizures have stopped.

Strategy

Illumina hopes to catalyze and accelerate the adoption of cWGS for RUGD by driving best practices and standardization in cWGS to ensure high quality data.

Notable Developments

Sept 2017: Five children's hospitals participate in NICUSeq, a multi-site study to evaluate the clinical utility of WGS in acute care neonates and infants.

Sept 2018: Rady Children's Hospital launches Project Baby Bear with $2M of funding from Medi-Cal to offer rapid WGS for critically-ill newborns.

Sept 2018: NIH awards five new clinical sites to expand the Undiagnosed Diseases Network with a total planned investment spend of $100M over four years.

Oct 2018: Members of the Undiagnosed Diseases Network report that it has reached clinical diagnosis for more than a third of previously undiagnosed patients.

Key Drivers

Reimbursement

In the US, 50% of total lives are insured for WES and less than 5% are insured for WGS.

In October 2018, CMS finalized the CPT Code price for cWGS for RUGD at $5,031 per genome.

Patient Advocacy and Support

Patients continue to be key advocates who proactively request and seek cWGS for more accurate and timely diagnoses.

[1]Global Genes RARE Facts & Statistics: https://globalgenes.org/rare-diseases-facts-statistics/
[2]Rare Disease Impact Report:Insights from patients and the medical community. Shire. 2013
[3]Hudome SM, Kirby RS, Senner JW, Cunniff C. Contribution of genetic disorders to neonatal Soneda A, Teruya H, Furuya N, et al. Proportion of malformations and genetic disorders among cases encountered at a high-care unit in a children's hospital. Eur J Pediatr 2012;171:301-5
[4]O'Malley M, Hutcheon RG. Genetic disorders and congenital malformations in pediatric long-term care. J Am Med Dir Assoc2007;8:332-4
[5]The case study is included with patient approval.

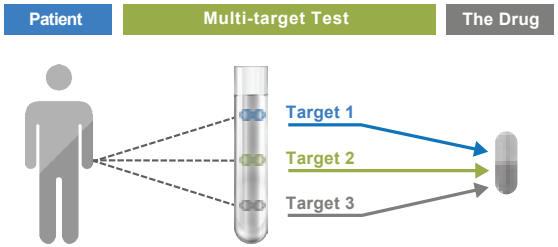
FOCUS AREA: ONCOLOGY

Opportunity

As cancer prevalence and costs rise, the need for effective patient stratification is driving research efforts to identify biomarkers and develop companion diagnostics.

- The number of new cancer cases is expected to increase to 24M per year by 2030[1].
- In 2017, the national economic burden of cancer care in the US was estimated at $137B[2].

The goal is to go from single tests to comprehensive, multigene tests to fuel precision medicine.



Strategy

Illumina is committed to enabling our customers and industry partners to innovate on our technologies. Our mission is to provide each customer, ranging from research to translational to clinical, with targeted solutions that move NGS into the standard of care.

Patient Journey

Overview for clinical testing

Hereditary Disposition

Determine hereditary risk through plasma/ saliva samples using NGS panels.

Screening

Screen for asymptomatic patients with plasma-based samples.

Therapy Selection

Receive optimized cancer treatment with companion diagnostic solutions.

Monitor efficacy and disease progression

Currently using imaging, but NGS panels could complement and eventually become viable alternatives.

Notable Developments

Mar 2018: CMS releases final national coverage determination for national coverage of FDA-approved CDx for patients with advanced cancers.

Apr 2018: Illumina partners with two pharmaceutical companies to broaden access to clinically actionable, sequencing-based diagnostics that enable precision medicine for oncology patients.

July 2018: Guardant Health receives positive local coverage determination from MolDx for its Guardant 360 Gene Panel Liquid Biopsy. This is the first finalized Medicare coverage for an NGS-based liquid biopsy assay in oncology.

Sept 2018: Anthem provides coverage for large NGS panels in non-small cell lung cancer. It requires that multi-gene panels must include tumor mutational burden (TMB).

Nov 2018: NCCN guidelines add TMB to the list of emerging biomarkers.

Key Drivers

Basic Research

The discovery process has only just begun. Basic research is needed to better understand the biology of cancer and discover treatment.

NGS Democratization

By enabling service providers and regulatory approved standardized distributable kits, Illumina is enabling greater access to life enhancing tools for patient care.

Regulatory and Reimbursement

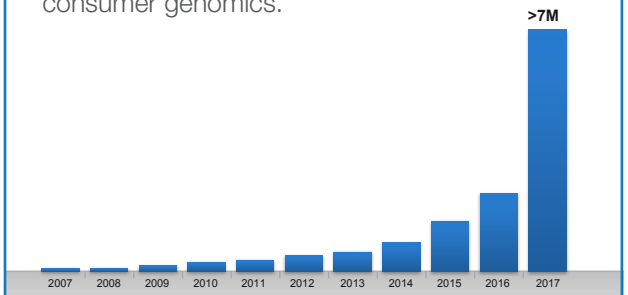
Regulatory approval and reimbursement coverage remain important for the uptake of companion diagnostics, both small and large panels.

[1]International Agency for Research on Cancer as of September 2018.
[2]NIH National Cancer Institute as of February 2018.

FOCUS AREA: CONSUMER GENOMICS

Opportunity

Strong interest from individual consumers to learn about their genomics has fueled the growing direct-to-consumer (DTC) genomics market. It's still very early days, with only ~5% penetration[1], and genealogy has been the overwhelmingly most common application. However, we expect additional use cases in fitness, nutrition, wellness and health-related applications to drive continued excitement in consumer genomics.



>12M Samples
Genotyped or Sequenced to Date[3]

Strategy

Illumina continues to supports its customers by innovating technologies to make genotyping and sequencing even more affordable for DTC markets.

[1]Estimate according to Morgan Stanley, August 2018.
[2]These 23andMe customer case studies are included with both company and customer approvals.
[3]Based on internal data and analysis.

Case Studies

23andMe customer stories[2]

Be Proactive

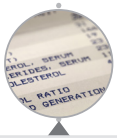
Received Results
Hilary learned she was 38% Ashkenazi Jewish and had a BRCA variant. No one in her family had a history of breast or ovarian cancer.

Consulted Doctor
Additional testing confirmed her positive result for BRCA.

Outcome
Hilary is now proactive about monitoring her health and reducing her risk.

Be Educated

Diagnosed by Doctors
Charlie was diagnosed with ulcerative colitis. Although he was prescribed dozens of medications, nothing really helped him feel fully better.



Studied Results
Charlie discovered that he had a genetic variant associated with celiac disease.

Outcome
Charlie followed-up with his doctor and was diagnosed with celiac disease. He is now on a gluten free diet and feeling better.

Notable Developments

Jan 2018: Helix (see page 22) partners with Healthy Nevada to use its proprietary Exome+ assay to sequence an additional 40,000 individuals.

Mar 2018: 23andMe receives FDA authorization for a DTC genetic test for cancer risk. The test reports on three variants in the BRCA1 and BRCA2 genes.

Oct 2018: 23andMe receives FDA authorization to provide pharmacogenetic tests to consumers.

Nov 2018: WeGene will open its lab in Hong Kong, equipped with Illumina microarrays, to service customers in Hong Kong and Southeast Asia.

Key Drivers

Affordability

As technologies have improved, consumer genomic tests have become much more affordable. For instance, in 2007, 23andMe launched their first testing service for $999 and in 2018, now offers tests between $99-$199.

Access

Until recently, consumer genomic companies had largely been focused on the US market. There has been significant growth and development abroad, notably in Asia Pacific (e.g., China, South Korea, Australia).

FOCUS AREA: POPULATION GENOMICS

Opportunity

Governments and health systems all over the world are recognizing the value of Population Genomics initiatives to improve the quality and efficiency of healthcare systems. Although large-scale population studies often take some time to ramp up to scale, Illumina is excited about the long-term opportunities.

The select following initiatives are expected to be actively sequencing in 2019:

- All of Us
- Genomics England
- Australia Genomics Health Futures Mission
- French Plan for Genomic Medicine 2025

Strategy

Illumina continues to deliver leading genotyping and NGS technologies to enable and support population genomic initiatives. Our goal is to help expand the value of the genome and help establish and expand clinical and health economic value proof points for key applications.

Case Study

Genomics England: 100,000 Genomes Project

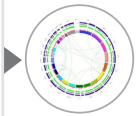
July 5, 2013
NHS launches GEL to sequence 100,000 whole genomes.

July 11, 2014
Selects Illumina to be sequencing provider.

February 11, 2016
Enters bioinformatics partnership with Illumina.

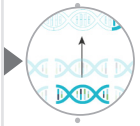
January 11, 2016
First children receive diagnoses through GEL.

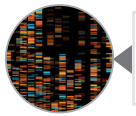
March 30, 2017
Whole genome analyses for cancer patients <18 days.



September 6, 2018
NHS announces launch of Genomic Medicine Services.

October 3, 2018
NHS plans to expand to 5M whole genomes sequenced within 5 years.





November 5, 2018
>92,000 whole genomes sequenced.

Notable Developments

April 2018: UK Biobank will sequence 50,000 whole genomes thanks to funding from Medical Research Council.

May 2018: Australia announces it will invest $372M over 10 years in its Genomics Health Futures Mission to sequence 200,000 participants.

June 2018: Genome Canada announces plans to sequence 30,000 patients with rare diseases.

Sept 2018: Yale announces plans to launch a genomic medicine project and sequence exomes and array-based genotypes for 100,000 patients.

Sept 2018: All of Us selects Baylor, Broad, and UW to serve as the three genome centers. They were awarded $28.6M in funding. NIH also increased the All of Us FY2019 budget by $82M to $376M.

Key Drivers

Scalability

With more robust array and high-throughput sequencing technologies, government and health systems can now efficiently and effectively integrate genomic and clinical data of large populations to drive further discovery and innovation.

Clinical Utility

As more discoveries are made in these initiatives, governments will increasingly see the clinical utility and health economic value of genomics.

ILLUMINA INITIATIVES

Catalyzing the Genomics Ecosystem

ILLUMINA ACCELERATOR

illumina VENTURES™

Helix

ILLUMINA ACCELERATOR DEVELOPS AND FOSTERS GENOMIC STARTUPS

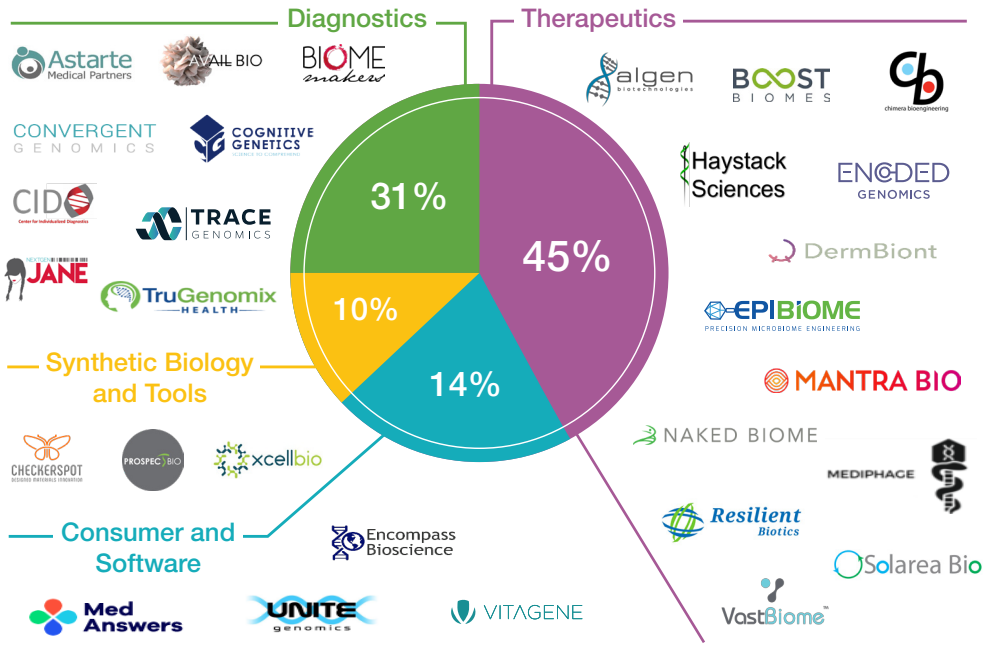
Background

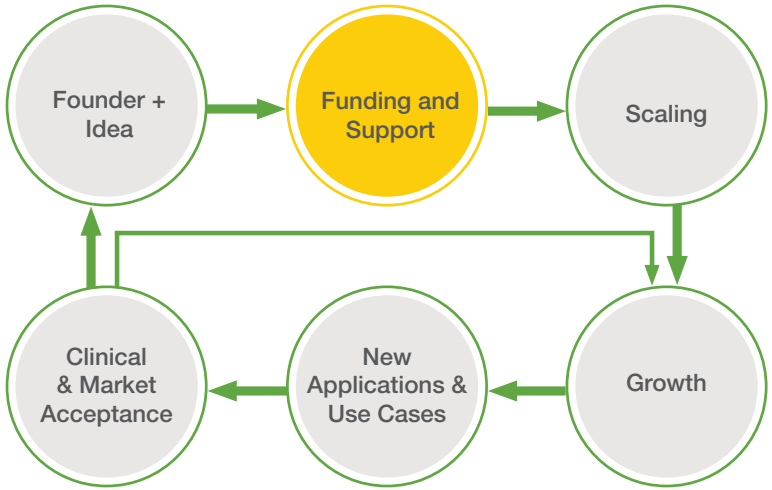
- Illumina Accelerator was founded in 2014.
- **Mission:** Catalyze new genomics markets by partnering with entrepreneurs to unlock the power of the genome.
- **Leadership:** Mostafa Ronaghi, SVP and Chief Technology Officer, and Amanda Cashin, VP
- **Progress:** 29 startups have attracted over $120M in VC funding.

Goals

- Catalyze new markets and applications for NGS
- Attract VC investment into genomics by creating high quality genomics startups
- Recruit top entrepreneurs into genomics
- Gain technology insights for Illumina R&D

Breakout by Investment Area





How it Works

Selection – Twice a year, Illumina Accelerator evaluates applications from early stage genomics companies.

Program – Participants spend 6 months onsite for expert support in business and science, and also receive additional services, including capital and lab/office space.

Graduation – Upon graduation, Illumina Accelerator can help startups with additional fundraising. Participants are now part of a close-knit alumni community.

ILLUMINA VENTURES HAS INVESTED IN 11 COMPANIES

illumina VENTURES™

What is Illumina Ventures?

- Illumina Ventures is an independently managed firm focused on early-stage companies that are pioneering new applications of genomics and enabling precision medicine.
- It was launched with an initial $100M investment from Illumina. The balance of the funds has been raised from a mix of corporate, institutional, sovereign, and individual investors.
- **Investment Areas:** Life science tools, clinical diagnostics, therapeutics, and other opportunities to improve human health.
- **First Fund Size:** $230M (includes the $100M investment from Illumina along with $130M from additional investors).

Key Facts

- **Launched: 2016**
- **Founding Partner:** Nicholas Naclerio, Ph.D., Illumina's former SVP, Corporate and Venture Development
- Portfolio companies have collectively raised over $200M to date
- As of September 30, 2018 the remaining commitment is $73M from Illumina (i.e., capital that not yet been deployed/invested)

Portfolio by Current Stage

Series A

Cernostics is a leader in tissue-based diagnostic testing, providing diagnostic tests with deeper tissue insights.

DNA Script is a leading company in manufacturing de novo synthetic nucleic acids using an enzymatic technology.

Genome Medical, Inc. is a network of clinical genetics experts integrating genomics into everyday health care.

Luna DNA enables people to share their health data for medical research for the greater good of the community.

SerImmune reveals the components of functional immune repertoires for therapeutic and diagnostic development.

Series B

Biota applies DNA sequencing and data science to explore the earth's subsurface and provide actionable insights to the oil industry for maximizing reservoir production and reducing environmental impact.

Encoded Genomics is harnessing the regulatory genome to create next-generation molecular therapies.

Kallyope is focused on the identification of new therapeutic and consumer opportunities involving the gut-brain axis, the information highway between our gut and our brain.

NanoCellect develops microfluidic technology for cell based assays.

Series C and later

SQZ Biotechnologies is a cell therapy company developing novel treatments for multiple therapeutic areas.

Twist Bioscience is accelerating science and innovation by leveraging proprietary semiconductor-based synthetic DNA manufacturing process to deliver cost-effective, rapid, high-quality and high throughput gene production.

CONSUMER DNA APPLICATIONS

Helix

What is Helix?

A personal genomics company that has created the first online store for DNA-powered products. Its mission is to empower every person to improve their life through DNA.

How did Helix start?

In July 2015, Illumina and 2 investment firms, Warburg Pincus and Sutter Hill Ventures, announced the formation of Helix and their financing commitments in excess of $100M.

Why did Illumina invest in Helix?

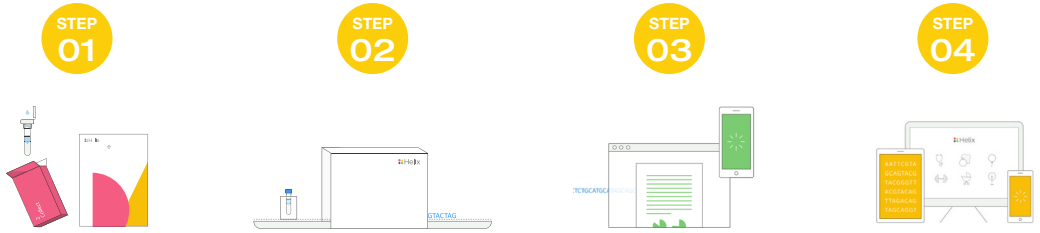
To pursue the development and commercialization of a marketplace for consumer genomics. Helix will enable individuals to acquire an unprecedented amount of genetic information by providing affordable sequencing and database services for consumer samples brought through third party partners, driving the creation of an ecosystem of consumer applications.

What is Illumina's relationship to Helix?

Illumina made an additional investment of $100M in Helix's Series B financing in exchange for voting equity interests. As of September 30, 2018, Illumina holds 50% of Helix's outstanding voting equity interests and is considered a consolidated VIE.

Helix launched in July 2017 with 20 products, and today has 35 products available from 20 partners, spanning Mayo Clinic to Lose It! to National Geographic.

How Helix Works: Sequence Once and Query Often



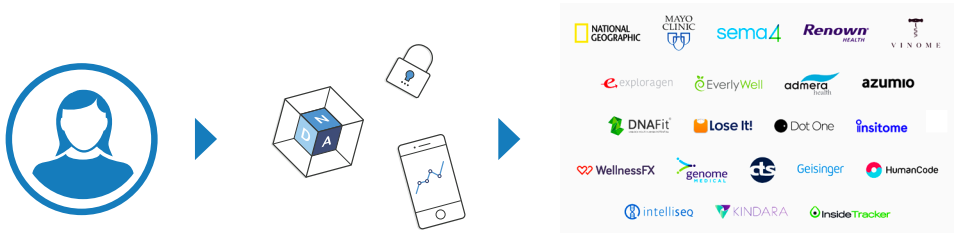
Consumer orders DNA kit

Sample gets sequenced

Consumer gets reports

Explore in DNA Store

Behind the Scenes



Consumer "requests" or buys a product

Helix provisions access to data

Partner conducts analysis and provides product to consumer

Key Facts and Updates

1. Helix uses its proprietary Exome+ assay to sequence each sample, yielding 100x more data than arrays commonly used by other companies.
2. Helix operates one of the world's largest CLIA-and-CAP-accredited NGS labs powered by Illumina technologies.
3. In June 2018, Helix closed its Series B financing round of $200M.

ILLUMINA CLINICAL LABORATORIES

Overview

Illumina Clinical Laboratories offer its customers services globally through two organizations:

- **Clinical Genomics Laboratory Services (CGLS).**
  The CGLS team based in California, USA supports high throughput NGS for clinical diagnosis (rare and undiagnosed disease, non-invasive prenatal screening, oncology) and array genotyping. Samples for the iHope program are also run in CGLS.
- **Illumina Laboratory Services (ILS).**
  The ILS team based in the UK supports high throughput human genome sequencing delivering data for the 100K Genomes Project via a contract between Illumina and Genomics England.

Strategy

Illumina Clinical Laboratories are designed to drive adoption of clinical genomic solutions by translating Illumina products for clinical laboratory use and accelerate the adoption of new platforms and products.

Why Customers Use CGLS and ILS

- Genomic experience since 2002
- High throughput, fully automated and LIMS tracked
- CLIA, CAP and ISO certified
- 3 locations and over 350 employees
- Board-certified pathologist, medical geneticists, genetic counselors, Ph.D. scientists
- Lab operations, engineering, software, supply chain, quality, and customer service

Fast Fact

Revenue associated with CGLS and ILS is included in our Services and Other category.

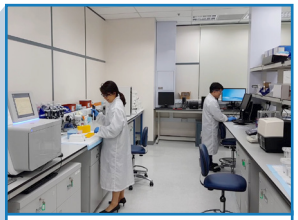
MANUFACTURING OVERVIEW

Illumina is committed to its manufacturing processes through continual improvement by maintaining the effectiveness of our quality management system and complying with regulatory requirements.

Hayward, CA
Instrument manufacturing

Madison, WI
Enzyme manufacturing

San Diego, CA
Launch pad for new consumables and IVD products



Singapore
Instrument and consumables manufacturing

Manufactures at high volume

Background

Sites: 4

Total sq footage: 316,663

Global employees: Over 700

Developing robust manufacturing capabilities is an integral part of Illumina's ability to deliver consistent, high-quality products on-time. Over the past few years, Illumina has begun a series of manufacturing expansion plans to promote business continuity with each site serving a strategic purpose. For instance, San Diego's manufacturing site allows for enhanced interactions and workflows between R&D and manufacturing.

KEY CORPORATE TRANSACTIONS AND PARTNERSHIPS

	Name	Date	Detail
ACQUISITIONS	**Pacific Biosciences**	Nov 2018	Announces acquisition of Pacific Biosciences for $1.2B, broadening access to long-read sequencing and accelerating scientific discovery. Subject to regulatory and PacBio shareholder approvals and customary closing conditions, deal is expected to close in mid-2019
	Edico Genome	May 2018	Acquisition of Edico Genome for $100M. Edico's DRAGEN platform will complement and enhance interpretation and reporting capabilities
	Verinata Health	Jan 2013	Acquisition of Verinata Health for $350M gives Illumina access to NIPT and IP portfolio
	Epicentre Biotechnologies	Jan 2011	Acquisition of Epicentre's Nextera technology to enhance NGS library prep for $90M
	Solexa	Nov 2006	Acquisition of Solexa for $650M gives Illumina the technology to enter the next-generation sequencing space
	Name	**Date**	**Detail**
DIVESTITURES	**Vitrolife**	Oct 2018	Licensing and commercialization agreement for exclusive distribution, development and commercialization rights to Illumina's PGT business for IVF in EMEA and Americas for $13M and up to additional $3M
	CareDx	May 2018	Licensing and commercialization agreement to be the exclusive worldwide distributor of Illumina's TruSight HLA v1 and v2 and Assign HLA software. In January 2017, CareDx acquired Conexio from Illumina
	Verogen	Aug 2017	Illumina partnered with Telegraph Hill Partners to launch Verogen, a spin-off of Illumina's efforts in forensic genomics
	Name	**Date**	**Detail**
SELECT RECENT PARTNERSHIPS	**GeneSeeq**	Jun 2018	To accelerate the commercialization of NGS testing in clinical cancers across China by developing an oncogene detection kit
	WeGene	Apr 2018	To develop and expand the consumer genomics market in China using Illumina's Microarray Platform
	BMS	Apr 2018	To develop and globally commercialize IVD assays (TruSight Oncology 500) to support BMS' oncology portfolio
	Loxo	Apr 2018	To develop NGS-based pan-cancer CDx version of TruSight Tumor 170 for NTRK gene fusions and RET gene alterations. The CDx version will seek FDA approval on the NextSeq 550Dx platform
	Harvard Pilgrim	Feb 2018	To create real world data to demonstrate clinical and economic value of NIPT. Illumina signed a value-based contract with Harvard Pilgrim to provide open market access of NIPT for average-risk pregnancies
	Thermo Fisher Scientific	Jan 2018	To allow Ion AmpliSeq technology for use on Illumina NGS platforms

PRESS RELEASES

1-Nov-18	Announces Acquisition of PACB for $1.2B
30-Oct-18	Launches TruSight Oncology 500 to Power Pan-Cancer Tumor Profiling
28-Sep-18	Announces Conversion Period for Convertible Senior Notes due 2019 and due 2021
27-Aug-18	Receives Approval of MiSeqDx System in China
16-Aug-18	Announces Pricing of Convertible Senior Notes
15-Aug-18	To Offer $650 Million Convertible Senior Notes
15-May-18	Acquires Edico Genome to Accelerate Genomic Data Analysis
13-Apr-18	Announces Collaboration with BMS to Develop CDx for IO Therapies
10-Apr-18	To Partner with Loxo Oncology on NGS-Based Pan-Cancer CDx
12-Mar-18	Names Dr. Phil Febbo Chief Medical Officer
26-Jan-18	Awarded $26.7M in Patent Suit Against Ariosa Diagnostics, Inc.
8-Jan-18	Agreement with TMO to Provide Access to Ion AmpliSeq Technology
8-Jan-18	Launches iSeq 100 Sequencing System
4-Jan-18	Partners with KingMed Diagnostics to Develop NGS Tech for Chinese FDA Approval
11-Dec-17	Names Aimee Hoyt Chief People Officer
29-Nov-17	Opens Commercial and Customer Training Center in France
21-Nov-17	Wins Infringement Suit Against Premaitha Health plc and Ariosa Diagnostics, Inc.
15-Nov-17	Introduces NextSeq 550Dx System and Expanded Use of MiSeqDx System
8-Nov-17	Names Gary S. Guthart, Ph.D., to Board of Directors
16-Oct-17	Releases NovaSeq S4 Flow Cell and NovaSeq Xp Workflow
7-Sep-17	Files New Patent Infringement Suit Against Premaitha Health plc
24-Aug-17	Launches Forensics Genomics Company, Verogen, with Telegraph Hill Partners
29-Jun-17	Announces FDA-approved NGS Cancer CDx Test Kit
26-Jun-17	Genomics England Adopts BaseSpace Variant Interpreter
22-May-17	Names Mark Van Oene Chief Commercial Officer
10-Apr-17	Launches the VeriSeq NIPT Solution in Europe
3-Apr-17	Donates Somatic Interpretations to CIViC
28-Feb-17	Announces the iHope Network
20-Feb-17	Names John W. Thompson to Board of Directors
30-Jan-17	Debuts VeriSeq Analysis Software for NIPT
27-Jan-17	Names Caroline Dorsa to Board of Directors
12-Jan-17	Collaborates with NRGene to Develop New Cattle Breeding Tools
9-Jan-17	Partners with Philips to Offer Integrated Genomics Solutions for Oncology
9-Jan-17	Partners with IBM to Standardize Genomic Data Interpretation
9-Jan-17	Launch with Bio-Rad a Solution for Single-Cell Genomic Sequencing
9-Jan-17	Introduces the NovaSeq Series
5-Jan-17	GRAIL Plans to Raise >$1B in Series B Funding
3-Jan-17	Taps Garret Hampton to Head its Clinical Genomics Unit

Quarterly Press Releases

23-Oct-18	Reports Q3 2018
30-Jul-18	Reports Q2 2018
24-Apr-18	Reports Q1 2018
30-Jan-18	Reports Q4 and FY17 Results
24-Oct-17	Reports Q3 2017
1-Aug-17	Reports Q2 2017
25-Apr-17	Reports Q1 2017
31-Jan-17	Reports Q4 and FY16 Results
1-Nov-16	Reports Q3 2016
10-Oct-16	Announces Preliminary Q3 2016 Results
26-Jul-16	Reports Q2 2016
3-May-16	Reports Q1 2016
18-Apr-16	Announces Preliminary Q1 2016 Results
2-Feb-16	Reports Q4 and FY15 Results

EXECUTIVE TEAM

Francis deSouza

President and CEO

Francis deSouza was appointed President & 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.

Sam Samad

SVP, Chief Financial Officer

Sam Samad joined Illumina in 2017 and holds the role of SVP and Chief Financial Officer with responsibility for the company's finance, accounting, investor relations, internal audit, and treasury functions.

Before joining Illumina, Samad held several senior leadership positions at Cardinal Health including Senior Vice President and Corporate Treasurer, leading all tax and treasury functions. During his tenure as Treasurer, Samad also had operational and financial responsibility for Cardinal Health's China business. Prior to that, Samad served as Senior Vice President and Chief Financial Officer for Cardinal Health's $85B pharmaceutical segment, among other leadership roles. Prior to Cardinal Health, Samad spent thirteen years at Eli Lilly and Company, in a variety of sales and finance roles, both domestically and internationally, including his role as Chief Financial Officer of the Canada affiliate prior to leaving Eli Lilly. Samad started his career at Pepsico Inc.

Samad is currently a member of the Board of Visitors at the Owen Graduate School of Management.

Garret Hampton, PhD

EVP, Clinical Genomics

Garret Hampton joined Illumina in 2017 and leads the company's Clinical Genomics Group, which includes the Reproductive and Genetic Health and Oncology Businesses, Regulatory, Clinical and Medical Affairs, CLIA Labs, and the Chief Medical Officer's organization.

Before joining Illumina, he held a variety of leadership positions at Genentech, Inc., and was most recently Vice President and Global Head of Oncology Biomarker Development and Companion Diagnostics. He previously held scientific and management roles at Celgene Corporation, Genomics Institute of the Novartis Research Foundation, and Genos Biosciences.

Omead Ostadan

EVP, Products and Operations

Omead Ostadan is EVP of Products and Operations. Mr. Ostadan is responsible for central product development, as well as global operations and quality. Mr. Ostadan joined Illumina in 2007 as VP of Marketing and built the company's marketing organization during a period of tremendous growth and diversification. In 2011, Mr. Ostadan assumed the role of SVP of Product Development and in 2015, his role expanded to include Global Operations and Quality functions.

Prior to joining Illumina, Mr. Ostadan was Vice President of Marketing at Solexa Inc., where he played a central role in the development of the company's product and commercial strategy. Prior to joining Solexa Inc. in 2005, Mr. Ostadan held a variety of marketing roles at Applied Biosystems, including responsibility for managing the company's high throughput sequencing platforms.

Marc Stapley

EVP, Strategy and Corporate Development

Marc Stapley joined Illumina in 2012 and holds the role of EVP, Strategy and Corporate Development, responsible for corporate strategy, corporate & business development and global infrastructure. Previously, Stapley served as Chief Administrative Officer with responsibility for all G&A functions and also as CFO.

Stapley was previously SVP, Finance at Pfizer and led integration efforts in both the Wyeth and King Pharmaceutical acquisitions, providing oversight to the company's largest technology investment program. Prior to Pfizer, he served in a variety of senior finance roles at Alcatel-Lucent, including Americas CFO. He also worked as Finance Director and Controller for several groups at Cadence Design Systems. Stapley is currently a member of the board of directors for Glaukos and Helix.

EXECUTIVE TEAM

Charles Dadswell
SVP, General Counsel

Charles Dadswell is Senior Vice President, General Counsel and Secretary to the Board of Directors of Illumina, where he has worldwide responsibility for global legal and intellectual property matters. He is also Chief Compliance Officer and President of the Illumina Foundation.

Before joining Illumina, Dadswell was Vice President, General Counsel for North and Latin America and Corporate Director of Global Intellectual Property at the French diagnostic company bioMerieux. He was previously General Counsel of BioDelivery Sciences International, a specialty pharmaceutical company. Prior to that appointment, Dadswell, spent 15 years at Glaxo, GlaxoWellcome and GlaxoSmithKline, in a variety of positions and oversaw US intellectual property procurement and enforcement. Prior to joining Glaxo, Dadswell was a patent attorney for Proctor & Gamble. Previous to that Dadswell worked for Glaxo as a hospital sales representative.

Aimee Hoyt
SVP, Chief People Officer

Aimee Hoyt is Senior Vice President and Chief People Officer at Illumina, where she is responsible for all aspects of the company's HR strategies. Hoyt has a successful track record for leading workforce transformation, driving business growth and creating high-impact teams.

Previously, she has held senior positions at some of the world's best-known technology companies including Hewlett-Packard, Cisco and Sun Microsystems. Most recently, she was the Chief Human Resources Officer at Rackspace, a leading managed cloud computing company, in San Antonio, Texas. She led the HR team and was responsible for helping build, align and develop high-performing global teams. During her tenure, Rackspace was recognized as one of Fortune's 100 Best Companies to Work For, Top 30 Best Places in Tech and Great Places to Work for Millennials.

Mostafa Ronaghi, PhD
SVP, Chief Technology Officer

Mostafa Ronaghi, Ph.D., joined Illumina in August 2008. As SVP and Chief Technology Officer, he is responsible for leading internal research and technology development and is co-founder of Illumina Accelerator.

Ronaghi, an experienced entrepreneur, most recently led the formation internally at Illumina of GRAIL Bio. Previously, Ronaghi co-founded several companies including: Avantome, a sequencing company acquired by Illumina in 2008; NextBio, a search engine for life science data acquired by Illumina in 2013; ParAllele Bioscience acquired by Affymetrix; and Pyrosequencing AB, which was renamed to Biotage in 2003, and had a successful IPO in 2000 on the Stockholm Stock Exchange.

Ronaghi was a principal investigator at Stanford University from 2002 until 2008 and focused on development of novel tools for molecular diagnostic applications. He serves on the board of directors of BaseHealth and Clear Labs. He is also a member of the Scientific Advisory Board of GRAIL Bio.

Mark Van Oene
SVP, Chief Commercial Officer

Mark Van Oene is SVP and Chief Commercial Officer for Illumina, a position he has held since 2017. He is responsible for the development and implementation of the company's commercial strategy and is responsible for world-wide sales, services and marketing. Van Oene was previously Illumina's Senior Vice President of the Americas region and subsequently named interim Chief Commercial Officer in late 2016. Van Oene joined Illumina in 2006 as Regional Account Manager for Canada. In 2008, he assumed the role of Senior Director of Sales for the Americas and was promoted to Vice President with responsibility for global sales in 2012. In early 2014, Van Oene was named the General Manager for the Americas region, advancing to Senior Vice President in April 2016.

Prior to Illumina, Van Oene was Director, Genotyping Services for Ellipsis Biotherapeutics.

BOARD OF DIRECTORS

Jay Flatley
Executive Chairman

Jay led Illumina as CEO from 1999 until 2016 and now serves as Executive Chairman of the Board of Directors. He oversaw the company's expansion from microarrays into next-generation sequencing with the acquisition of Solexa in 2006, and from research into clinical and applied markets. Under his leadership, Illumina was named multiple times to the Deloitte & Touche Fast 50 and Fast 500 lists, as well as to the Forbes 25 Fastest-Growing Tech Companies (2007, 2009 and 2010), the Fortune 100 Fastest-Growing Companies (2010 and 2011) lists, and recognition by MIT Technology Review as the World's Smartest Company in 2014.

Jay chairs the Board of Directors for Illumina and its subsidiary, Helix. In addition to his work at Illumina, he serves on the Boards of Directors at Coherent, Denali, Iridia and on the Board of Trustees for The Salk Institute and is an Advisory Board member for UC San Diego's Moores Cancer Center.

Francis deSouza

Refer to Executive Team biography on page 27.

Frances Arnold, PhD

Dr. Arnold has been a director since 2016. She is the recipient of numerous honors, including most recently the 2018 Nobel Prize for Chemistry. Dr. Arnold manages a research group at the California Institute of Technology and is the Dick and Barbara Dickinson Professor of Chemical Engineering, Bioengineering and Biochemistry at the California Institute of Technology and Director of the Donna and Benjamin M. Rosen Bioengineering Center. Dr. Arnold's laboratory focuses on protein engineering by directed evolution, with applications in alternative energy, chemicals, and medicine. Dr. Arnold serves as a director of Provivi, Inc., a privately-held biopesticide company.

Caroline Dorsa

Ms. Dorsa has been a director since January 2017. Ms. Dorsa served as EVP and CFO of Public Service Enterprise Group Incorporated, a NYSE-listed diversified energy company, from April 2009 until her retirement in October 2015, and served on its Board of Directors from 2003 to April 2009. She has served as SVP, Global Human Health, Strategy and Integration at Merck, SVP and CFO of Gilead Sciences, and SVP and CFO of Avaya. From 1987 to January 2007, Ms. Dorsa held several leadership positions at Merck & Co., Inc., including VP and Treasurer, Executive Director of U.S. Customer Marketing, and Executive Director of U.S. Pricing and Strategic Planning. Ms. Dorsa also serves on the Board of Directors of Biogen and Intellia Therapeutics, and is on the Board of Trustees of the Goldman Sachs ETF Trust, the Goldman Sachs MLP and Energy Renaissance Fund and the Goldman Sachs MLP Income Opportunities Fund.

Karin Eastham

Ms. Eastham has been a director since July 2004. She has over 30 years of experience in financial and operations management. Ms. Eastham serves as a director for 4 public biotechnology companies, Illumina, Inc., Geron Corporation, Veracyte, Inc. and MorphoSys AG. Her former directorships include Amylin Pharmaceuticals, Genoptix, Tercica,Trius Therapeutics, SGX, Salmedix, Molecular Probes and Cyntellect. Ms. Eastham's career includes her service as EVP and COO and Trustee of the Burnham Institute for Medical Research. She also served as Senior Vice President, Finance, Chief Financial Officer, and Secretary of Diversa Corporation. She held similar positions with CombiChem, Inc., a computational chemistry company, and Cytel Corporation, a biopharmaceutical company. Ms. Eastham also held several positions, including Vice President, Finance, at Boehringer Mannheim Diagnostics.

Robert S. Epstein, MD

Dr. Epstein has been a director since November 2012. Dr. Epstein is an epidemiologist who worked in public health and academia before joining the private sector. From 2010 to 2012, Dr. Epstein was Chief R&D Officer and President of Medco-UBC, a 2,400 person global research organization focused on conducting personalized medicine, health economics, drug safety, outcomes, and comparative effectiveness research on behalf of the biopharmaceutical, medical device, and diagnostics industries. Prior to this role, Dr. Epstein was Medco's Chief Medical Officer for 13 years. Dr. Epstein serves on the Board of Directors of Fate Therapeutics, Inc. and Veracyte, Inc. Dr. Epstein also serves as a director of the following privately-held companies: Intellos LLC, a diagnostics company; and Proteus Digital Health, a healthcare technology company. Dr. Epstein has published more than 75 peer-reviewed medical articles and book chapters and serves as a reviewer for several influential medical journals, including the New England Journal of Medicine and JAMA (The Journal of the American Medical Association).

Gary S. Guthart, PhD

Gary S. Guthart, Ph.D. has been director since December 2017. Dr. Guthart is currently President and Chief Executive Officer of Intuitive Surgical, a global leader in the field of robotic-assisted minimally invasive surgery. He joined Intuitive Surgical in April 1996 and has served as the Chief Executive Officer since January 2010. In July 2007, he was promoted to President, having assumed the role of Chief Operating Officer in February 2006. Prior to joining Intuitive Surgical, Dr. Guthart was part of the core team developing foundation technology for computer enhanced-surgery at SRI International (formerly Stanford Research Institute). Dr. Guthart served as a member of the Board of Directors of Affymetrix, Inc. from May 2009 until its acquisition by Thermo Fisher Scientific Inc. in March 2016.

BOARD OF DIRECTORS

Philip Schiller

Mr. Schiller has been a director since July 2016. Mr. Schiller rejoined Apple Inc. in April 1997 and assumed his current position as Senior Vice President, Worldwide Marketing in February 2002 and is a member of Apple's executive team responsible for the company's product marketing, developer relations, business marketing, education marketing, international marketing, and App Store programs. He has helped Apple create and market some of the best-selling products in the world including the Mac, iPod, iTunes, iPhone, the App Store, Apple TV, and the Apple Watch. Prior to rejoining Apple, Mr. Schiller was Vice President of Product Marketing at Macromedia, Inc. from 1995 to 1997 and Director of Product Marketing at FirePower Systems, Inc. from 1993 to 1995. Prior to that, Mr. Schiller spent six years at Apple in various marketing positions.

John W. Thompson

John W. Thompson has been a director since 2017. He brings executive leadership experience having served as chief executive officer roles at Virtual Instruments and Symantec as well as 28 years of prior leadership experience at IBM where he held senior roles in sales, marketing, software development and as general manager of IBM Americas. He is chairman of the board at Microsoft and has served on the corporate boards of Symantec, NIPSCO (Northern Indiana Public Service Company), Fortune Brands, Seagate Technologies, and United Parcel Service (UPS). Mr. Thompson is a member of the board of trustees for the Wetlands America Trust and formerly a member of the national board of Teach for America. In addition, he has served on several government commissions including the Financial Crisis Inquiry Commission, the National Infrastructure Advisory Council, and the Silicon Valley Blue Ribbon Task Force on Aviation Security and Technology.

Committee Composition

	Audit	Compensation	Nominating and Corporate Governance	Science and Technology	Financial Expert	Class*
Frances Arnold, PhD			■	■		2019
Caroline Dorsa	■				■	2020
Karin Eastham	■	■			■	2019
Robert S. Epstein, MD		■	■			2020
Philip Schiller			■	■		2020
Gary S. Guthart, PhD		■		■		2021
John W. Thompson	■				■	2021
Jay Flatley				■		2021
Francis deSouza						2019

■ Chair ■ Member

*Listed class refers to the year of term expiration.

ANALYST COVERAGE AND TOP INVESTORS

Sell-side Coverage

Please note that any opinions, estimates or forecasts regarding Illumina's performance made by these analysts are theirs alone and do not represent opinions, forecasts or predictions of Illumina or its management. Illumina does not by its reference below or distribution imply its endorsement of or concurrence with such information, conclusions or reocmmendations.

Firm	Analyst
BAML	Derik de Bruin, PhD
Baird	Catherine Schulte
Barclays	Jack Meehan, CFA
BTIG	Sung Ji Nam
Canaccord	Mark Massaro
Cowen	Doug Schenkel
Citi	Dan Arias
CL King	Dave Westenberg, CFA
Deutsche Bank	Dan Leonard
Evercore ISI	Ross Muken
First Analysis	Joseph Munda
Goldman Sachs	Patrick Donnelly
Janney	Paul Knight, CFA
JPMorgan	Tycho Peterson
Leerink	Puneet Souda
Morgan Stanley	Steve Beuchaw
Piper Jaffray	Bill Quirk, CFA
UBS	Dan Brennan

Largest Investors

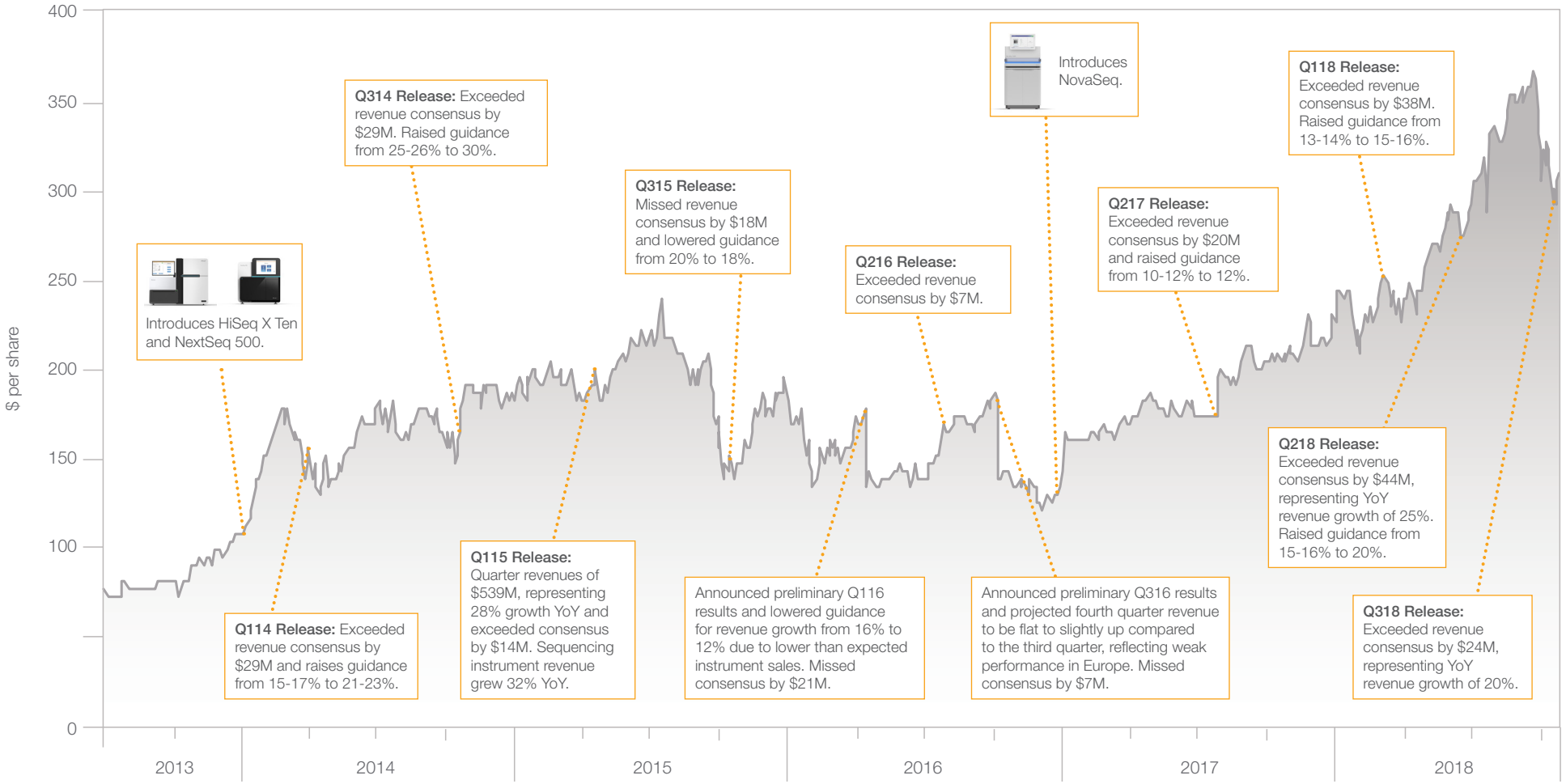
The following list reflects Illumina's top investors as of the most recently available filings (9/30/18).

Holder	9/30/18 Position
Baillie Gifford & Co.	16,137,504
The Vanguard Group, Inc.	10,833,784
Capital Research Global Investors	7,868,159
BlackRock Institutional Trust Company, N.A.	7,722,893
State Street Global Advisors	5,730,377
Jennison Associates LLC	4,831,666
Edgewood Management LLC	4,392,241
Capital International Investors	4,039,767
Sands Capital Management, LLC	4,003,171
Morgan Stanley Investment Management Inc.	2,741,660
Nuveen LLC	1,874,983
Geode Capital Management, L.L.C.	1,684,300
Columbia Threadneedle Investments	1,600,435
Invesco Capital Management LLC	1,551,194
Franklin Advisers, Inc.	1,521,755
JP Morgan Asset Management	1,430,406
Jackson Square Partners, LLC	1,429,221
Capital World Investors	1,346,000
Norges Bank Investment Management (NBIM)	1,280,142[1]
Northern Trust Investments, Inc.	1,165,665

[1]As of most recently available filing from 12/31/17.

STOCK PRICE PERFORMANCE

This chart captures ILMN stock price performance for the past five years, including a comparison of reported quarterly revenue results to consensus. Note that the company does not, as a matter of routine, issue quarterly revenue guidance.



Note: All guidances refer to FY guidances unless otherwise noted. Stock price performance as of October 31, 2018.

FINANCIALS FAQ

Q. What is included in 'Sequencing Revenue'?

Sequencing Consumables: Sales of single-use reagents and flow cells necessary to perform runs on our sequencing instruments. Customers must use Illumina reagents and flow cells on Illumina instruments. Also includes our suite of library prep offerings. Unlike our reagents/flow cells, customers do not need to use Illumina library prep before sequencing on Illumina instruments.

Generally, revenue is recognized upon delivery to the end customer.

Sequencing Instruments: Sales of our "Seq" product line to customers. Customers use these instruments for a broad range of applications including whole-genome, de novo, exome, RNA sequencing, and targeted resequencing of specific gene regions and genes.

Generally, revenue is recognized upon delivery to the end customer.

Sequencing Services:

- Extended warranties and maintenance contracts for our Sequencing instruments.
- Sequencing services performed at our in-house labs for a fee. Revenue from our partnership with Genomics England is included here.
- Revenue and IP fees for Verinata test send outs from NIPT customers.
- Co-development revenue with partners (i.e., Loxo and BMS).
- Informatics revenue (BaseSpace and DRAGEN product lines).

Generally, revenue from instrument service contracts is recognized evenly over the contract term; and revenue from other sequencing services, at the time the sequencing analysis data is made available to the customer or agreed-upon milestones are reached.

Q. What is included in 'Microarray Revenue'?

Microarray Consumables: Primarily consists of our Infinium product line and used on our Microarray instruments.

Microarray Instruments: Primarily consists of sales of our iScan system, which is used for genotyping DNA.

Also includes ancillary equipment used to automate workflows, such as AutoLoaders and Tecan robots. We source this equipment from third parties.

Microarray Services

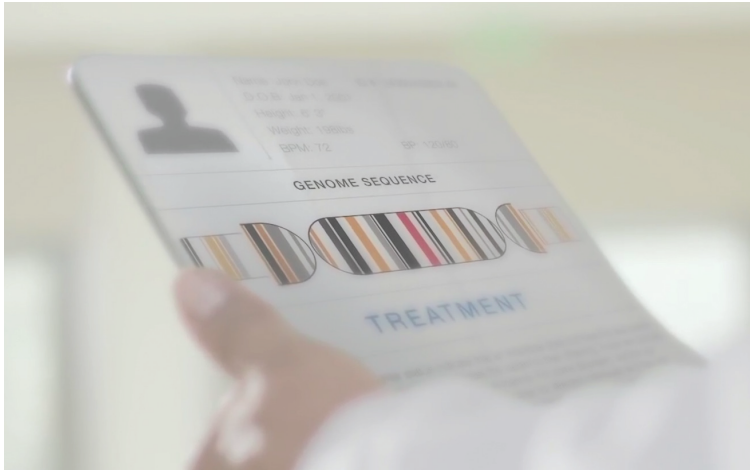
- Extended warranties and maintenance contracts for our Microarray instruments.
- Array genotyping services performed at our in-house lab for a fee.

Generally, revenue from instrument service contracts is recognized evenly over the contract term; and revenue from other microarray services, at the time the genotyping analysis data is made available to the customer or agreed-upon milestones are reached.

	2018
	Unaudited
(in millions)	Q3 18
SEQUENCING	
Consumables	$467
Instruments	138
Other product revenue	5
Service & Other	109
Total Sequencing	**$719**
% Revenue	**84%**
MICROARRAYS	
Consumables	$83
Instruments	16
Other product revenue	1
Service & Other	34
Total Microarrays	**$134**
% Revenue	**16%**

All amounts in tables are rounded to the nearest millions, except as otherwise noted. As a result, certain amounts may not recalculate using the rounded amounts provided.

Other Product includes freight and other.



FINANCIALS FAQ

Q. What is included in 'Other Income (Expense)'?

Total other income (expense) reflects interest income, interest expense, and other income (expense), net.

Illumina's interest expense consists primarily of accretion of discount on our convertible senior notes and interest recorded on our financing obligations related to our build-to-suit properties.

Other income (expense), net, consists primarily of mark-to-market adjustments and impairments from our strategic investments.

Q. How should we think about 'Taxes'?

Our effective tax rate may vary from the U.S. federal statutory tax rate due to the change in the mix of earnings in tax jurisdictions with different statutory rates, benefits related to tax credits, and the tax impact of non-deductible expenses and other permanent differences between income before income taxes and taxable income.

The non-GAAP tax rate was 17.3% in Q318 versus 21.6% in Q317. Positively impacting the tax rate this year is a benefit related to our Helix investment and a favorable 2017 foreign tax return adjustment.

Q. What is 'Net Loss Attributable to Non-controlling Interests'?

We currently own 50% of the outstanding shares of Helix and consolidate their results in our financial statements. This line on our P&L represents the net loss associated with Helix that is attributable to other investors, and as such, is added back to Consolidated Net Income to calculate Net Income Attributable to Illumina Stockholders.

	2018
	Unaudited
(in millions, except per share amounts and %)	Q3 18
Income from operations	241
Other (expense) income, net	(9)
Income before income taxes	232
Provision for income taxes	44
Consolidated Net income	188
Net loss attributable to noncontrolling interests	11
Net income attributable to Illumina stockholders	**$199**
Net income attributable to Illumina stockholders for earnings per share	**$199**
Earnings per share attributable to Illumina Stockholders (a):	
Basic	$1.35
Diluted	$1.33
Shares used in computing earnings per common share:	
Basic	147
Diluted	149

All amounts in tables are rounded to the nearest millions, except as otherwise noted.
As a result, certain amounts may not recalculate using the rounded amounts provided.

(a) Helix is included in the Company's consolidated basic and diluted earnings per share computations based on Illumina's weighted average common shares as a percentage of Helix's weighted average common shares.

FINANCIALS

Balance Sheet

	2016				2017				2018		
	Unaudited				Unaudited				Unaudited		
(in millions)	Q1 16	Q2 16	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18
ASSETS											
Current assets:											
Cash and cash equivalents	$755	$952	$795	$735	$981	$1,219	$1,354	$1,225	$1,560	$1,344	$1,346
Short-term investments	588	474	742	824	797	674	687	920	813	1,168	2,043
Accounts receivable, net	403	372	382	381	368	372	383	411	400	395	433
Inventory	288	311	312	300	299	309	327	333	350	362	374
Deferred tax assets, current portion	-	-	-	-	-	-	-	-	-	-	-
Prepaid expenses and other current assets	40	34	47	78	72	69	54	91	71	68	66
Total current assets	2,074	2,143	2,278	2,318	2,517	2,643	2,805	2,980	3,194	3,337	4,262
Property and equipment, net	385	511	634	713	734	837	862	931	983	1,036	1,060
Goodwill	776	776	776	776	771	771	771	771	775	831	831
Intangible assets, net	270	269	256	243	207	196	185	175	168	205	195
Deferred tax assets, long-term portion	196	186	182	123	83	103	117	88	100	108	86
Other assets	93	100	102	108	286	308	306	312	322	334	325
Total assets	**$3,794**	**$3,985**	**$4,228**	**$4,281**	**$4,598**	**$4,858**	**$5,046**	**$5,257**	**$5,542**	**$5,851**	**$6,759**
LIABILITIES AND STOCKHOLDERS' EQUITY											
Current liabilities:											
Accounts payable (a)	$135	$157	$134	$138	$142	$175	$158	$160	$151	$149	$156
Accrued liabilities	326	330	315	342	386	378	381	432	388	422	450
Build-to-suit lease liability (a)	20	94	179	223	192	124	124	144	21	21	22
Long-term debt, current portion	-	1	1	2	1	5	2	10	620	625	1,107
Total current liabilities	481	582	629	705	721	682	665	746	1,180	1,217	1,735
Long-term debt	1,023	1,031	1,041	1,056	1,055	1,169	1,180	1,182	710	723	860
Other long-term liabilities	186	198	204	206	212	212	222	360	364	343	352
Redeemable noncontrolling interest	33	34	34	44	59	80	124	125	215	217	218
Stockholders' equity	2,071	2,140	2,320	2,270	2,551	2,715	2,855	2,844	3,073	3,351	3,594
Total liabilities and stockholders' equity	**$3,794**	**$3,985**	**$4,228**	**$4,281**	**$4,598**	**$4,858**	**$5,046**	**$5,257**	**$5,542**	**$5,851**	**$6,759**

(a) Build-to-suit lease liabilities were reclassified from accounts payable for Q1 and Q2 of 2016 to conform to current period presentation.

FINANCIALS

Income Statement (GAAP)

	2016					2017					2018		
	Unaudited					Unaudited					Unaudited		
(in millions, except per share amounts and %) (a)	Q1 16	Q2 16	Q3 16	Q4 16	FY 16	Q1 17	Q2 17	Q3 17	Q4 17	FY 17	Q1 18	Q2 18	Q3 18
Revenue:													
Product revenue	$483	$510	$514	$525	$2,032	$491	$543	$596	$659	$2,289	$628	$673	$710
Service and other revenue	89	90	93	94	366	107	119	118	119	463	154	157	143
Total revenue	**$572**	**$600**	**$607**	**$619**	**$2,398**	**$598**	**$662**	**$714**	**$778**	**$2,752**	**$782**	**$830**	**$853**
Cost of revenue:													
Cost of product revenue (a)	125	125	132	151	534	166	168	173	172	679	174	181	184
Cost of service and other revenue (a)	39	40	38	38	155	53	50	50	55	208	62	65	62
Amortization of acquired intangible assets	11	11	11	11	43	11	10	9	9	39	8	9	10
Total cost of revenue	**$175**	**$176**	**$181**	**$200**	**$732**	**$230**	**$228**	**$232**	**$236**	**$926**	**$244**	**$255**	**$256**
Gross profit	**$397**	**$424**	**$426**	**$419**	**$1,666**	**$368**	**$434**	**$482**	**$542**	**$1,826**	**$538**	**$575**	**$597**
Operating expense:													
Research and development (b)	124	125	126	130	504	145	130	134	137	546	137	151	159
Selling, general and administrative (b)(c)	150	148	139	146	584	171	161	167	175	674	183	197	197
Legal contingencies (c)	2	(11)	-	-	(9)	-	-	-	-	-	-	-	-
Total operating expense	**$276**	**$262**	**$265**	**$276**	**$1,079**	**$316**	**$291**	**$301**	**$312**	**$1,220**	**$320**	**$348**	**$356**
Income from operations	121	162	161	143	587	52	143	181	230	606	218	227	241
Other income (expense), net	(5)	(5)	(7)	(9)	(26)	451	(2)	(6)	(6)	437	3	5	(9)
Income before income taxes	116	157	154	134	561	503	141	175	224	1,043	221	232	232
Provision for income taxes	28	41	37	26	133	155	21	23	166	365	24	32	44
Consolidated Net income	88	116	117	108	428	348	120	152	58	678	197	200	188
Net loss attributable to noncontrolling interests	2	4	12	16	35	19	8	11	10	48	11	9	11
Net income attributable to Illumina stockholders	**$90**	**$120**	**$129**	**$124**	**$463**	**$367**	**$128**	**$163**	**$68**	**$726**	**$208**	**$209**	**$199**
Net income attributable to Illumina stockholders for earnings per share	**$90**	**$122**	**$129**	**$124**	**$454**	**$366**	**$128**	**$163**	**$68**	**$725**	**$208**	**$209**	**$199**
Earnings per share attributable to Illumina Stockholders (b):													
Basic	$0.61	$0.83	$0.88	$0.84	$3.09	$2.50	$0.87	$1.12	$0.47	$4.96	$1.42	$1.42	$1.35
Diluted	$0.60	$0.82	$0.87	$0.84	$3.07	$2.48	$0.87	$1.11	$0.46	$4.92	$1.41	$1.41	$1.33
Shares used in computing earnings per common share:													
Basic	147	147	147	147	147	146	146	146	146	146	147	147	147
Diluted	148	148	148	148	148	147	147	148	148	148	148	148	149
Gross Margin	69%	71%	70%	68%	69%	62%	66%	68%	70%	66%	69%	69%	70%
R&D as % of revenue	22%	21%	21%	21%	21%	24%	20%	19%	18%	20%	18%	18%	19%
SG&A as % of revenue	26%	25%	23%	24%	24%	29%	24%	24%	23%	25%	23%	24%	23%
Operating Expenses as % of revenue	48%	44%	44%	45%	45%	53%	44%	42%	40%	44%	41%	42%	42%
Operating Margin	21%	27%	27%	23%	24%	9%	22%	25%	30%	22%	28%	27%	28%
Tax Rate	25%	26%	24%	20%	24%	31%	15%	13%	74%	35%	11%	14%	19%

All amounts in tables are rounded to the nearest millions, except as otherwise noted.
As a result, certain amounts may not recalculate using the rounded amounts provided.

(a) Includes stock-based compensation.
(b) Our consolidated VIEs' losses (GRAIL and Helix) are included in the Company's consolidated basic and diluted earnings per share computations based on Illumina's weighted average common shares as a percentage of the VIEs' weighted average common shares. In Q2 2016, Illumina exchanged 98 million shares of GRAIL Class B common stock held by Illumina for 98 million shares of GRAIL Series A-1 convertible preferred stock. This resulted in a significant difference in GRAIL's common stock outstanding and common stock owned by Illumina throughout the year. Therefore, for the fiscal year 2016, the sum of the quarterly earnings per share do not equal the annual earnings per share.
(c) Legal contingencies of $8M and $(8)M for Q1 2017 and Q2 2017, respectively, were reclassified to selling, general and administrative expenses.

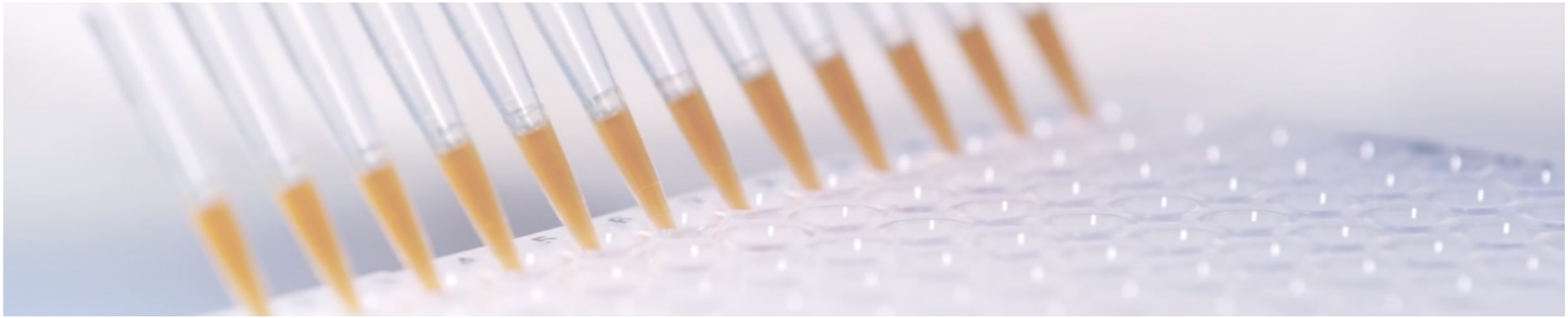
FINANCIALS

Income Statement (non-GAAP)

	2016					2017					2018		
	Unaudited					Unaudited					Unaudited		
(in millions, except per share amounts and %) (a)	Q1 16	Q2 16	Q3 16	Q4 16	FY 16	Q1 17	Q2 17	Q3 17	Q4 17	FY 17	Q1 18	Q2 18	Q3 18
Revenue	$571.8	$600.1	$607.1	$619.3	$2,398.4	$598.2	$662.4	$714.0	$777.7	$2,752.3	$782.0	$830.3	$853.4
Gross profit	407.4	434.3	437.1	430.4	1,709.3	397.2	443.7	491.3	551.4	1,883.5	546.1	583.5	606.6
Research and development expense	123.9	124.5	125.8	129.9	504.1	139.5	130.4	133.7	135.0	538.6	136.7	150.7	158.7
Selling, general and administrative expense	147.1	146.4	137.1	144.9	575.3	153.2	166.6	165.9	172.2	658.0	179.0	196.7	196.9
Income from operations	136.6	163.4	174.2	155.6	629.8	104.5	146.6	191.6	244.1	686.8	230.4	236.1	251.0
Consolidated net income	103.2	123.2	132.1	110.2	468.7	81.4	113.4	152.3	201.9	549.0	203.3	203.0	215.6
Net loss attributable to noncontrolling interests	2.4	4.0	12.0	16.2	34.6	12.8	7.9	10.9	10.2	41.8	10.7	9.5	11.2
Net income attributable to Illumina stockholders	105.5	127.2	144.1	126.4	503.2	94.2	121.3	163.3	212.1	590.8	214.0	212.5	226.8
Diluted EPS attributable to Illumina stockholders	0.71	0.86	0.97	0.85	3.33	0.64	0.82	1.11	1.44	4.00	1.45	1.43	1.52
Helix and GRAIL dilution (benefit)	0.06	0.08	0.07	0.08	0.36	0.07	0.05	0.07	0.06	0.25	(0.04)	0.03	0.05
Tax rate	25.5%	25.7%	24.6%	28.5%	26.1%	24.4%	25.1%	21.6%	18.0%	21.5%	12.9%	15.9%	17.3%

All amounts in tables are rounded to the nearest one hundred thousands, except as otherwise noted. As a result, certain amounts may not recalculate using the rounded amounts provided.

(a) 2016 non-GAAP results have been restated to include stock-based compensation in order to conform to current period presentation.



FINANCIALS

Reconciliation between GAAP and non-GAAP Results

	2016[a]					2017					2018		
	Unaudited					Unaudited					Unaudited		
(in millions)	Q1 16	Q2 16	Q3 16	Q4 16	FY 16	Q1 17	Q2 17	Q3 17	Q4 17	FY 17	Q1 18	Q2 18	Q3 18
GAAP gross profit	$397	$424	$426	$419	$1,666	$368	$434	$482	$542	$1,826	$538	$575	$597
Amortization of acquired intangible assets	10	10	11	11	43	11	10	9	9	39	8	9	10
Impairment	-	-	-	-	-	18	-	-	-	18	-	-	-
Non-GAAP gross profit (b)	$407	$434	$437	$430	$1,709	$397	$444	$491	$551	$1,883	$546	$584	$607
GAAP research and development expense	$124	$125	$126	$130	$504	$145	$130	$134	$137	$546	$137	$151	$159
Restructuring (c)	-	-	-	-	-	-	-	-	(2)	(2)	-	-	-
Impairment	-	-	-	-	-	(5)	-	-	-	(5)	-	-	-
Non-GAAP research and development expense	$124	$125	$126	$130	$504	$140	$130	$134	$135	$539	$137	$151	$159
GAAP selling, general and administrative expense (d)	$150	$148	$139	$146	$584	$171	$161	$167	$175	$674	$183	$197	$197
Amortization of acquired intangible assets	(2)	(2)	(1)	(1)	(6)	(2)	(2)	(2)	(1)	(6)	(1)	-	-
Acquisition related gain (expense), net (e)	-	-	-	-	-	1	-	-	-	1	-	-	-
Headquarter relocation	-	-	-	-	(1)	-	-	-	-	-	-	-	-
Contingent compensation expense	(1)	-	(1)	-	(2)	-	-	-	-	-	-	-	-
Performance-based compensation related to GRAIL series B financing (f)	-	-	-	-	-	(10)	-	-	-	(10)	-	-	-
Legal contingencies	-	-	-	-	-	(8)	8	-	-	-	-	-	-
Restructuring (c)	-	-	-	-	-	-	-	-	(2)	(2)	(3)	-	-
Non-GAAP selling, general and administrative expense	$147	$146	$137	$145	$575	$152	$167	$165	$172	$657	$179	$197	$197
GAAP operating profit	$121	$162	$161	$143	$587	$52	$143	$181	$230	$606	$218	$227	$241
Amortization of acquired intangible assets	12	12	12	12	49	13	12	11	10	45	9	9	10
Acquisition related (gain) expense, net (e)	-	-	-	-	-	(1)	-	-	-	(1)	-	-	-
Headquarter relocation	-	-	-	-	1	-	-	-	-	-	-	-	-
Legal contingencies	2	(11)	-	-	(9)	8	(8)	-	-	-	-	-	-
Contingent compensation expense	1	-	1	-	2	-	-	-	-	-	-	-	-
Performance-based compensation related to GRAIL series B financing (f)	-	-	-	-	-	10	-	-	-	10	-	-	-
Impairments	-	-	-	-	-	23	-	-	-	23	-	-	-
Restructuring (c)	-	-	-	-	-	-	-	-	4	4	3	-	-
Non-GAAP operating profit (b)	$136	$163	$174	$155	$630	$105	$147	$192	$244	$687	$230	$236	$251
GAAP other income (expense), net	$(5)	$(5)	$(7)	$(9)	$(26)	$451	$(2)	$(6)	$(6)	$437	$3	$5	$(9)
Loss on extinguishment of debt	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-cash interest expense	8	7	8	8	30	7	8	8	8	30	8	7	11
Strategic investment related gain	-	-	-	-	-	(2)	(1)	1	-	(2)	(8)	(7)	8
Gain on deconsolidation of GRAIL (g)	-	-	-	-	-	(453)	-	-	-	(453)	-	-	-
Non-GAAP other (expense) income, net	$3	$2	$1	$(1)	$4	$3	$5	$3	$2	$12	$3	$5	$10

All amounts in tables are rounded to the nearest millions, except as otherwise noted. As a result, certain amounts may not recalculate using the rounded amounts provided.

(a) 2016 non-GAAP results have been restated to include stock-based compensation in order to conform to current period presentation.
(b) 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 the company's products and services. Non-GAAP operating profit, and non-GAAP other income (expense), net, exclude the effects of the pro forma adjustments as detailed above. Management has excluded the effects of these items in these measures to assist investors in analyzing and assessing past and future operating performance.
(c) Amount consists primarily of employee costs related to the restructuring that ocurred in Q1 2018 and Q4 2017.
(d) Legal contingencies of $8M and $(8)M for Q1 2017 and Q2 2017, respectively, were reclassified to selling, general and administrative expenses.
(e) Acquisition related gain/expense consists of change in fair value of contingent consideration.
(f) Amount represents performance-based stock which vested as a result of the financing.
(g) The company sold a portion of its interest in GRAIL in Q1 2017, resulting in the deconsolidation of GRAIL.

FINANCIALS

Reconciliation between GAAP and Non-GAAP Results

	2016					2017					2018		
	Unaudited					Unaudited					Unaudited		
(in millions, except per share amounts)	Q1 16	Q2 16	Q3 16	Q4 16	FY 16	Q1 17	Q2 17	Q3 17	Q4 17	FY 17	Q1 18	Q2 18	Q3 18
GAAP earnings per share attributable to Illumina stockholders - diluted	$0.60	$0.82	$0.87	$0.84	$3.07	$2.48	$0.87	$1.11	$0.46	$4.92	$1.41	$1.41	$1.33
Adjustments to net income:													
Amortization of acquired intangible assets	0.09	0.08	0.08	0.08	0.33	0.09	0.08	0.07	0.07	0.30	0.06	0.06	0.07
Non-cash interest expense	0.05	0.05	0.05	0.05	0.20	0.05	0.05	0.05	0.05	0.20	0.05	0.05	0.08
Acquisition related (expense) gain, net (a)	-	-	-	-	-	(0.01)	-	-	-	(0.01)	-	-	-
Strategic investment related (gain) loss, net	-	-	-	-	-	(0.01)	(0.01)	0.01	-	(0.01)	(0.05)	(0.05)	0.05
Headquarter relocation	-	-	-	-	0.01	-	-	-	-	-	-	-	-
Legal contingencies	0.01	(0.07)	-	-	(0.06)	0.05	(0.05)	-	-	0	-	-	-
Deemed dividend (b)	-	(0.01)	-	-	(0.01)	-	-	-	-	-	-	-	-
Contingent compensation expense	-	-	0.01	-	0.01	-	-	-	-	0	-	-	-
Gain on deconsolidation of GRAIL (c)	-	-	-	-	-	(3.07)	-	-	-	(3.07)	-	-	-
Impairments	-	-	-	-	-	0.15	-	-	-	0.15	-	-	-
Performance-based compensation related to GRAIL series B financing (d)	-	-	-	-	-	0.03	-	-	-	0.03	-	-	-
Restructuring (e)	-	-	-	-	-	-	-	-	0.03	0.03	0.02	-	-
Incremental non-GAAP tax expense (f)	(0.04)	(0.01)	(0.04)	(0.07)	(0.17)	0.93	(0.03)	(0.05)	(0.05)	0.80	(0.02)	(0.02)	(0.05)
Tax benefit related to cost-sharing arrangement (g)	-	-	-	(0.05)	(0.05)	-	-	-	-	-	-	-	-
U.S. Tax Reform (h)	-	-	-	-	-	-	-	-	1.01	1.01	-	-	0.07
Excess tax benefit from share-based compensation (i)	-	-	-	-	-	(0.05)	(0.09)	(0.08)	(0.13)	(0.35)	(0.02)	(0.02)	(0.03)
Non-GAAP earnings per share attributable to Illumina stockholders - diluted (j)	$0.71	$0.86	$0.97	$0.85	$3.33	$0.64	$0.82	$1.11	$1.44	$4.00	$1.45	$1.43	$1.52
GAAP net income attributable to Illumina stockholders	$90	$120	$129	$124	$463	$367	$128	$163	$68	$726	$208	$209	$199
Amortization of acquired intangible assets	12	12	12	12	49	13	12	11	10	45	9	9	10
Non-cash interest expense	8	7	8	8	30	7	8	8	8	30	8	7	11
Acquisition related (gain) loss, net (a)	-	-	-	-	-	(1)	-	-	-	(1)	-	-	-
Strategic investment related gain (loss), net	-	-	-	-	-	(2)	(1)	1	-	(2)	(8)	(7)	8
Headquarter relocation	-	-	-	-	1	-	-	-	-	-	-	-	-
Legal contingencies	2	(11)	-	-	(9)	8	(8)	-	-	-	-	-	-
Contingent compensation expense	1	-	1	-	2	-	-	-	-	-	-	-	-
Gain on deconsolidation of GRAIL (c)	-	-	-	-	-	(453)	-	-	-	(453)	-	-	-
Impairments	-	-	-	-	-	23	-	-	-	23	-	-	-
Performance-based compensation related to GRAIL series B financing (d)	-	-	-	-	-	4	-	-	-	4	-	-	-
Restructuring (e)	-	-	-	-	-	-	-	-	4	4	3	-	-
Incremental non-GAAP tax expense (f)	(7)	(1)	(6)	(11)	(26)	136	(5)	(8)	(7)	117	(3)	(3)	(7)
Tax benefit related to cost-sharing arrangement (g)	-	-	-	(7)	(7)	-	-	-	-	-	-	-	-
U.S. Tax Reform (h)	-	-	-	-	-	-	-	-	150	150	-	-	11
Excess tax benefit from share-based compensation (i)	-	-	-	-	-	(8)	(13)	(12)	(21)	(52)	(3)	(3)	(5)
Non-GAAP net income attributable to Illumina stockholders (j)	$106	$127	$144	$126	$503	$94	$121	$163	$212	$591	$214	$212	$227

All amounts in tables are rounded to the nearest millions, except as otherwise noted. As a result, certain amounts may not recalculate using the rounded amounts provided.
(a) Acquisition related gain consists of change in fair value of contingent consideration.
(b) 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.
(c) The company sold a portion of its interest in GRAIL, resulting in the deconsolidation of GRAIL. The $150 million tax effect of the gain is included in incremental non-GAAP tax expense. Subsequent to the transaction, the company's remaining interest is treated as a cost-method investment.
(d) Amount represents performance-based stock which vested as a result of the financing, net of attribution to noncontrolling interest.
(e) Amount consists primarily of employee costs related to the restructuring that ocurred in Q1 2018 and Q4 2017.
(f) Incremental non-GAAP tax expense reflects the tax impact related to the non-GAAP adjustments listed above.
(g) Tax benefit related to cost-sharing arrangement refers to the exclusion of stock compensation from prior period cost-sharing charges as a result of a tax court ruling.
(h) In accordance with the Tax Cuts and Jobs Act enacted on December 22, 2017 (U.S. Tax Reform), amount for 2017 primarily represents the provisional estimate of the one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. The 2018 amount represents the discrete tax expense associated with updating prior year estimates of the impact of U.S. Tax Reform.
(i) Amount represents tax deductions taken in excess of stock compensation cost. Such amounts are recorded as a discrete item within the provision for income taxes on the consolidated statement of income pursuant to ASU 2016-09, which recognized in additional paid-in capital on the consolidated statement of stockholders' equity prior to FY2017.
(j) Non-GAAP net income attributable to Illumina stockholders and diluted earnings per share attributable to Illumina stockholders exclude the effect of the pro forma adjustments as detailed above. Non-GAAP net income attributable to Illumina stockholders and diluted earnings per share attributable to Illumina stockholders 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. Management has excluded the effects of these items in these measures to assist investors in analyzing and assessing our past and future core operating performance.

FINANCIALS

Cash Flow

	2016					2017					2018		
	Unaudited					Unaudited					Unaudited		
(in millions)	Q1 16	Q2 16	Q3 16	Q4 16	FY 16	Q1 17	Q2 17	Q3 17	Q4 17	FY 17	Q1 18	Q2 18	Q3 18
Net cash provided by operating activities	$99	$242	$176	$262	$779	$168	$178	$235	$294	$875	$255	$295	$292
Net cash (used in) provided by investing activities	(44)	44	(341)	(174)	(515)	163	36	(97)	(315)	(214)	12	(536)	(940)
Net cash (used in) provided by financing activities	(71)	(89)	9	(145)	(296)	(86)	23	(5)	(109)	(176)	67	30	650
Effect of exchange rate changes on cash and cash equivalents	2	-	(1)	(3)	(2)	1	1	2	1	5	1	(5)	-
Net (decrease) increase in cash and cash equivalents	(14)	197	(157)	(60)	(34)	246	238	135	(129)	490	335	(216)	2
Cash and cash equivalents, beginning of period	769	755	952	795	769	735	981	1,219	1,354	735	1,225	1,560	1,344
Cash and cash equivalents, end of period	$755	$952	$795	$735	$735	$981	$1,219	$1,354	$1,225	$1,225	$1,560	$1,344	$1,346
Calculation of free cash flow:													
Net cash provided by operating activities	$99	$242	$176	$262	$779	$168	$178	$235	$294	$875	$255	$295	$292
Purchases of property and equipment (a)	(53)	(68)	(57)	(82)	(260)	(83)	(69)	(82)	(76)	(310)	(90)	(77)	(64)
Free cash flow (b)	$46	$174	$119	$180	$519	$85	$109	$153	$218	$565	$165	$218	$228

(a) Excludes property and equipment recorded under build-to-suit lease accounting, which are non-cash expenditures.
(b) 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, calculation of free cash flow may not be comparable to similar measures used by other companies.

FINANCIALS

Supplementary Data

	2017					2018		
	Unaudited					Unaudited		
(in millions)	Q1 17	Q2 17	Q3 17	Q4 17	FY 17	Q1 18	Q2 18	Q3 18
CONSUMABLES								
Sequencing Consumables	$318	$338	$380	$432	$1,468	$417	$455	$467
Microarrays Consumables	69	64	71	82	285	87	85	83
Total Consumables	387	402	451	514	1,753	504	540	550
% Revenue	65%	61%	63%	66%	64%	64%	65%	64%
INSTRUMENTS								
Sequencing Instruments	$95	$130	$128	$131	$484	$112	$123	$138
Microarrays Instruments	5	6	12	8	31	6	4	16
Total Instruments	100	136	140	139	515	118	127	154
% Revenue	17%	21%	20%	18%	19%	15%	15%	18%
Other Product (a)	$4	$5	$5	$6	$21	$6	$6	$6
TOTAL PRODUCT REVENUE	**$491**	**$543**	**$596**	**$659**	**$2,289**	**$628**	**$673**	**$710**
SERVICE & OTHER								
Sequencing	78	77	80	87	322	96	106	109
Microarrays	29	42	38	32	141	58	51	34
Total Service & Other	**107**	**119**	**118**	**119**	**463**	**154**	**157**	**143**
% Revenue	**18%**	**18%**	**17%**	**15%**	**17%**	**20%**	**19%**	**17%**
TOTAL REVENUE	**$598**	**$662**	**$714**	**$778**	**$2,752**	**$782**	**$830**	**$853**

	2017					2018		
	Unaudited					Unaudited		
(in millions)	Q1 17	Q2 17	Q3 17	Q4 17	FY 17	Q1 18	Q2 18	Q3 18
SEQUENCING								
Consumables	$318	$338	$380	$432	$1,468	$417	$455	$467
Instruments	95	130	128	131	484	112	123	138
Other product revenue (a)	4	5	5	5	19	5	6	5
Service & Other	78	77	80	87	322	96	106	109
Total Sequencing	**$495**	**$550**	**$593**	**$655**	**$2,293**	**$630**	**$690**	**$719**
% Revenue	**83%**	**83%**	**83%**	**84%**	**83%**	**81%**	**83%**	**84%**
MICROARRAYS								
Consumables	$69	$64	$71	$82	$285	$87	$85	$83
Instruments	5	6	12	8	31	6	4	16
Other product revenue (a)	-	-	-	1	2	1	-	1
Service & Other	29	42	38	32	141	58	51	34
Total Microarrays	**$103**	**$112**	**$121**	**$123**	**$459**	**$152**	**$140**	**$134**
% Revenue	**17%**	**17%**	**17%**	**16%**	**17%**	**19%**	**17%**	**16%**

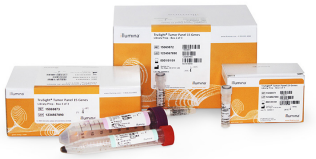
Financial Data Available

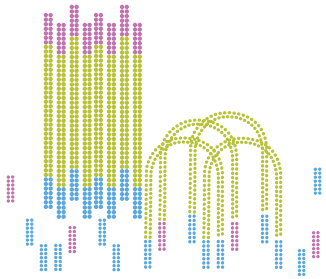
For those interested in receiving a copy of the Financial Data in Excel spreadsheets, please reach out directly to the Investor Relations team.

All amounts in tables are rounded to the nearest millions, except as otherwise noted. As a result, certain amounts may not recalculate using the rounded amounts provided.
(a) Other Product includes freight and other

APPENDIX

SEQUENCING WORKFLOW





1 Library preparation

- Before sequencing can take place, a sequencing library needs to be created which contains the DNA (or RNA) of interest to the experiment.
- During the library generation process, adapters will be added (usually via a process called ligation) onto both ends of the molecules of interest.
- These adapters are what enables cluster generation as well as providing a unique barcode to uniquely identify libraries that may have been pooled together for sequencing.
- As such, many libraries may be pooled together to enable efficient use of the output of a single sequencing run.

2 Cluster Growth/ Generation

- Once prepared, libraries (or pools of libraries) are loaded into a flow cell in preparation for sequencing.
- Before clustering, libraries need to be denatured. Most Illumina systems use NaOH for library denaturation however for iSeq, this process is automated and is performed inside the cartridge by the sequencer.
- Once denatured, DNA fragments can be captured on surface-bound oligos that are complementary to the library adaptors. Each fragment is then amplified into distinct, clonal clusters through bridge amplification.

3 Sequencing

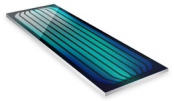
- Once a flow cell is clustered, sequencing can commence. First, all the molecules within a cluster are orientated into the same direction and denatured to allow the sequence primer (complimentary to the adapters) to anneal.
- With the primer annealed, a polymerase enzyme is introduced and begins incorporating fluorescently labeled nucleotides (ddATP, ddGTP, ddCTP, ddTTP) which are complementary DNA bases of interest in the clusters.
- These ddNTPs are specially designed to halt synthesis after a single base is incorporated to ensure the synthesis of new strands is synced and the same length at the end of each cycle.
- At this point, the instrument excites the fluorescent labels on the newly incorporated nucleotide and captures an image of the flow cell. This image allows identification of the first base in the cluster.
- Illumina sequencing uses reversible termination that can turn a ddNTP into a regular dNTP, which allows the sequencing process to repeat and proceed one nucleotide at a time instead of being permanently halted.
- This process is repeated continuously, allowing identification of one base of the cluster each time the process repeats.

4 Data Analysis

- During sequencing, primary analysis is done on the instrument. This converts the images of the clusters into intensities and base calls.
- Post sequencing, secondary analysis begins. This involves additional software to generate alignments and then variant detection. Illumina offers this capability via its BaseSpace Sequence Hub.
- Once the variants have been identified during secondary analysis, tertiary analysis allows for annotation, filtering, and interpretation.

What is a flow cell?

A flow cell is a glass slide with fluidic channels or lanes, where the sequencing chemistry occurs.



Statement regarding use of non-GAAP financial measures

The company reports non-GAAP results for diluted net income per share, net income, gross margins, operating expenses, operating margins, other income, and free cash flow 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, non-cash interest expense associated with the company's convertible debt instruments that may be settled in cash, and others that are listed in the itemized reconciliations between GAAP and non-GAAP financial measures included in this Source Book. Management has excluded the effects of these items in non-GAAP measures to assist investors in analyzing and assessing past and future operating performance. Additionally, non-GAAP net income attributable to Illumina stockholders and diluted earnings per share attributable to Illumina stockholders 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 presentation.

Use of forward-looking statements

This release contains projections, information about our financial outlook, total addressable market, and other forward-looking statements that involve risks and uncertainties. These forward-looking statements are based on our expectations as of the date of this release and may differ materially from actual future events or results. Among the important factors that could cause actual results to differ materially from those in any forward-looking statements are (i) our ability to further develop and commercialize our instruments and consumables and to deploy new products, including diagnostic assays, services and applications, and expand the markets for our technology platforms; (ii) our ability to manufacture robust instrumentation, consumables, including diagnostic assays; (iii) our ability to successfully identify and integrate acquired technologies, products or businesses; (iv) the future conduct and growth of the business and the markets in which we operate; (v) challenges inherent in developing, manufacturing, and launching new products and services or integrating acquired products and technology into our portfolio; (vi) our ability to obtain necessary regulatory approvals to close our announced acquisition of Pacific Biosciences; (vii) or to market and sell diagnostic or therapeutic products and (viii) the application of generally accepted accounting principles, which are highly complex and involve many subjective assumptions, estimates, and judgments, 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.

Illumina • 1.800.809.4566 toll-free (US) • +1.858.202.4566 tel • www.illumina.com

illumina®