

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number: 001-35406

illumina®

illumina, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

33-0804655

(I.R.S. Employer Identification No.)

5200 Illumina Way, San Diego, CA 92122

(Address of principal executive offices) (Zip code)

Registrant's telephone number, including area code: (858) 202-4500

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.01 par value	ILMN	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13a of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of February 9, 2024, there were 158.9 million shares (excluding 40.0 million shares held in treasury) of the registrant's common stock outstanding. The aggregate market value of the common stock held by non-affiliates of the registrant as of July 2, 2023 (the last business day of the registrant's most recently completed second fiscal quarter), based on the closing price for the common stock on The Nasdaq Global Select Market on June 30, 2023 (the last trading day before July 2, 2023), was \$26.5 billion. This amount excludes an aggregate of approximately 16.9 million shares of common stock held by officers and directors and each person known by the registrant to own 10% or more of the outstanding common stock. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, directly or indirectly, to direct or cause the direction of the management or policies of the registrant, or that the registrant is controlled by or under common control with such person.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the 2024 annual meeting of stockholders are incorporated by reference into Items 10 through 14 of Part III of this Report.

ILLUMINA, INC.
FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2023
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Consideration Regarding Forward-Looking Statements

This annual report on Form 10-K contains, and our officers and representatives may from time to time make, “forward-looking statements” within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Words such as: “anticipate,” “intend,” “plan,” “goal,” “seek,” “believe,” “continue,” “project,” “estimate,” “expect,” “strategy,” “future,” “likely,” “may,” “potential,” “predict,” “should,” “will,” or similar words or phrases, or the negatives of these words, may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward looking. Examples of forward-looking statements include, among others, statements we make regarding:

- our expectations as to our future financial performance, results of operations, or other operational results or metrics;
- the benefits that we expect will result from our business activities and certain transactions we have completed, or may complete, such as product introductions, increased revenue, decreased expenses, and avoided expenses and expenditures;
- our expectations of the effect on our financial condition of claims, litigation, contingent liabilities, and governmental investigations, proceedings, and regulations;
- our strategies or expectations for product development, market position, financial results, and reserves;
- our ability to successfully implement cost reduction plans in a timely manner and the possibility that costs associated with our cost reduction plans are greater than we anticipate;
- our expectations regarding the pending divestiture of GRAIL, LLC (f/k/a GRAIL, Inc.) (GRAIL);
- the transitional measures imposed by the European Commission in connection with our acquisition of GRAIL, the duration and impact of such measures on Illumina and GRAIL, and the appointment of a monitoring trustee to monitor our compliance with such measures;
- the prohibition decision adopted by the European Commission on September 6, 2022 (the Prohibition Decision), informing us of its decision to prohibit our acquisition of GRAIL, and the decision adopted by the European Commission on October 12, 2023, requiring us to (among other things) divest GRAIL and imposing transitional measures (the EC Divestment Decision);
- any future order issued by the Federal Trade Commission (FTC) requiring us to, among other things, divest GRAIL and to hold GRAIL separate through the completion of the divestiture;
- the Article 14(2)(b) fine imposed by the European Commission on July 12, 2023; and
- other expectations, beliefs, plans, strategies, anticipated developments, and other matters that are not historical facts.

Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following:

- our expectations and beliefs regarding prospects and growth for our business and the markets in which we operate;
- the timing and mix of customer orders among our products and services;
- challenges inherent in developing, manufacturing, and launching new products and services, including expanding manufacturing operations and reliance on third-party suppliers for critical components;

- the impact of recently launched or pre-announced products and services on existing products and services;
- risks and uncertainties regarding legal and regulatory proceedings, including the failure to obtain or delays in obtaining the required regulatory approvals or clearances including for the divestiture of GRAIL and other actions that have been or may be taken or pursued by the European Commission, the FTC and/or other governmental or regulatory authorities in connection with such acquisition;
- the burdensome transitional measures and hold separate requirements imposed by the European Commission, the duration and impact of these requirements on Illumina and GRAIL (which may include additional costs or liabilities, loss of revenue and other adverse effects on our business, financial condition and results of operations), the administration of these requirements by an appointed monitoring trustee and the risk that the European Commission could impose or seek to impose additional fines and other penalties for alleged noncompliance with these requirements;
- the EC Divestment Decision and any future FTC order, which may each adversely affect us and our business, including current plans and operations, financial condition and results of operations, each requiring us to divest GRAIL and to hold GRAIL separate through the completion of the divestiture, the terms and conditions thereof (including with respect to a divestiture of GRAIL), and the timing of and the risks, costs and business disruptions (including the diversion of management's attention) associated with such divestiture and/or any related appeals, the implementation thereof or any associated legal or regulatory proceedings or obligations, including any related appeals, and other uncertainties related to our compliance (or ability to comply) with each of the EC Divestment Decision and any future FTC order, which may adversely affect us and our business, including current plans and operations, financial condition and results of operations;
- risks associated with contracts or other agreements containing provisions that might be implicated by any divestiture of GRAIL or the EC Divestment Decision, including our ability to fully realize the anticipated economic benefits of our commercial arrangements with GRAIL and our obligations with respect to contingent value rights (the CVRs) issued by us in connection with the GRAIL acquisition and the risk that we will be unable to fully discharge such obligations in connection with a divestiture of GRAIL, that a divestiture will result in a change in obligor on the CVRs and/or of other consequences related thereto, which may adversely affect us and our business and/or the market value of the CVRs;
- our ability to satisfy the necessary conditions to consummate the divestiture of GRAIL on a timely basis or at all, due to the requirements under the EC Divestment Decision;
- the risks and costs associated with the divestiture of GRAIL;
- the risk of adverse effects resulting from additional potential litigation associated with the acquisition of GRAIL, such as additional legal, financial advisory, regulatory and other professional services fees;
- the risk of additional litigation arising against us in connection with the GRAIL acquisition;
- the assumptions underlying our critical accounting policies and estimates;
- our assessments and estimates that determine our effective tax rate;
- our assessments and beliefs regarding the outcome of pending legal proceedings and any liability that we may incur as a result of those proceedings, as well as the cost and potential diversion of management resources associated with these proceedings;
- uncertainty, or adverse economic and business conditions, including as a result of slowing or uncertain economic growth, public health crisis, or armed conflict; and
- other factors detailed in our filings with the Securities and Exchange Commission (SEC), including the risks, uncertainties, and assumptions described in ["Risk Factors"](#) within the Business & Market Information section of this report, or in information disclosed in public conference calls, the date and time of which are released beforehand.

Any forward-looking statement made by us in this annual report on Form 10-K is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation, and do not intend, to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, or to review or confirm analysts' expectations, or to provide interim reports or updates on the progress of any current financial quarter, in each case whether as a result of new information, future developments, or otherwise.

Available Information

Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports are available free of charge on our website, www.illumina.com. The information on our website is not incorporated by reference into this report. Such reports are made available as soon as reasonably practicable after filing with, or furnishing to, the SEC. The SEC also maintains an Internet site at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that electronically file with the SEC. Copies of our annual report on Form 10-K will be made available, free of charge, upon written request.

Assign, BaseSpace, BeadArray, Bluebee, BlueFuse, BlueGnome, cBot, Clarity LIMS, CircLigase, COVIDSeq, DesignStudio, DRAGEN, DRAGEN ORA, Emedgene, Enancio, FastTrack, Flow, Genetic Energy, GenomeStudio, Genomics Suite, Golden Gate, HiSeq, iHope, Illumina, Illumina Connected Analytics, Illumina Propel Certified, Infinium, iScan, iSelect, iSeq, MiniSeq, MiSeq, MiSeq FGx, Nextera, NextSeq, NovaSeq, Partek, Pattern Visualization System, Powered by Illumina, Praxis, Ribo-Zero, SureCell, The Analytical Spreadsheet, TruGenome, TruSeq, TruSight, Turning Data Into Discovery, Verifi, Verinata, Verinata Health, VeriSeq, XLEAP-SBS, the pumpkin orange color, and the Genetic Energy / streaming bases design are trademarks or registered trademarks of Illumina, Inc.

"GRAIL," the GRAIL logos, and other trade names, trademarks, or service marks of GRAIL are the property of GRAIL. The "Galleri" mark and logo are registered in numerous countries including the United States and the United Kingdom. Applications to register the "Galleri" mark and logo, the "GRAIL" mark and the logo, and marks associated with GRAIL are also pending in a variety of countries.

Unless the context requires otherwise, references in this annual report on Form 10-K to "Illumina," the "Company," "we," "us," and "our" refer to Illumina, Inc. and its consolidated subsidiaries.

Our fiscal year is the 52 or 53 weeks ending the Sunday closest to December 31, with quarters of 13 or 14 weeks ending the Sunday closest to March 31, June 30, September 30, and December 31. References to 2023, 2022, and 2021 refer to fiscal years ended December 31, 2023, January 1, 2023, and January 2, 2022, respectively. Fiscal years 2023, 2022, and 2021 were all 52 weeks.

BUSINESS & MARKET INFORMATION

BUSINESS OVERVIEW

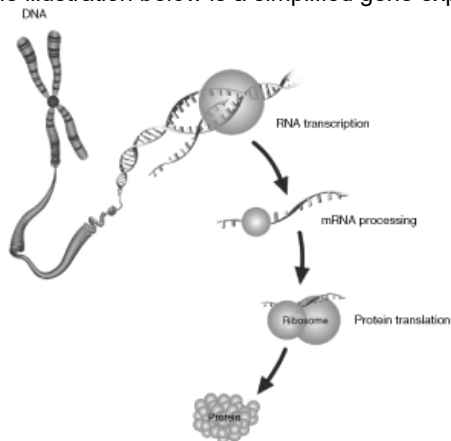
We are a global leader in sequencing- and array-based solutions for genetic and genomic analysis. Our products and services serve customers in a wide range of markets, enabling the adoption of genomic solutions in research and clinical settings. We were incorporated in California in April 1998 and reincorporated in Delaware in July 2000. Our principal executive offices are located at 5200 Illumina Way, San Diego, California 92122. Our telephone number is (858) 202-4500.

Our customers include leading genomic research centers, academic institutions, government laboratories, and hospitals, as well as pharmaceutical, biotechnology, commercial molecular diagnostic laboratories, and consumer genomics companies. Our portfolio of integrated sequencing and microarray systems, consumables, and analysis tools is designed to accelerate and simplify genetic analysis. This portfolio addresses the range of genomic complexity, price points, and throughput, enabling customers to select the best solution for their research or clinical application.

On August 18, 2021, we acquired GRAIL, a healthcare company focused on early detection of multiple cancers. The acquisition is subject to ongoing legal proceedings and, currently, GRAIL must be held and operated separately and independently from Illumina pursuant to the transitional measures ordered by the European Commission in the EC Divestment Decision, following the prohibition of our acquisition of GRAIL on September 6, 2022. See note [“8. Legal Proceedings”](#) for further details. We have included the financial results of GRAIL in our consolidated financial statements from the date of acquisition. On December 17, 2023, we announced that we will divest GRAIL. The divestiture of GRAIL is expected to be executed through a third-party sale or capital markets transaction in accordance with the EC Divestment Decision, with the goal of finalizing the terms of the divestiture by the end of the second quarter of 2024. There can be no assurance regarding the ultimate timing of the divestiture of GRAIL.

Genetics Primer

The instruction set for all living cells is encoded in deoxyribonucleic acid, or DNA. The complete set of DNA for any organism is referred to as its genome. DNA contains small regions called genes, which comprise a string of nucleotide bases labeled A, C, G, and T, representing adenine, cytosine, guanine, and thymine, respectively. These nucleotide bases occur in a precise order known as the DNA sequence. When a gene is “expressed,” a copy of a portion of its DNA sequence called messenger RNA (mRNA) is used as a template to direct the synthesis of a particular protein. Proteins, in turn, direct all cellular function. The illustration below is a simplified gene expression schematic.



Variations among organisms are due, in large part, to differences in their DNA sequences. Changes can result from insertions, deletions, inversions, translocations, or duplications of nucleotide bases. These changes may result in certain genes becoming overexpressed (excessive protein production), underexpressed (reduced protein production), or silenced altogether, sometimes triggering changes in cellular function. The most common form of variation in humans is called a single nucleotide polymorphism (SNP), which is a base change in a single position in a DNA sequence. Another type of variation, copy number variations (CNVs), occur when there are fewer or more copies of certain genes, segments of a gene, or stretches of DNA.

In humans, genetic variation accounts for many of the physical differences we see (e.g., height, hair, eye color, etc.). Genetic variations also can have medical consequences affecting disease susceptibility, including predisposition to complex genetic diseases such as cancer, diabetes, cardiovascular disease, and Alzheimer's disease. They can affect individuals' response to certain drug treatments, causing them to respond well, experience adverse side effects, or not respond at all.

Scientists are studying these variations and their consequences in humans, as well as in a broad range of animals, plants, and microorganisms. Such research takes place in government, university, pharmaceutical, biotechnology, and agrigenomics laboratories around the world, where scientists expand our knowledge of the biological functions essential for life. Beginning at the genetic level, our tools are used to elucidate the relationship between gene sequence and biological processes. Researchers who investigate human and non-human genetic variation to understand the mechanisms of disease are enabling the development of more effective diagnostics and therapeutics. They also provide greater insight into genetic variation in plants (e.g., food and biofuel crops) and animals (e.g., livestock and domestic), enabling improvements in crop yields and animal breeding programs.

By empowering genetic analysis and facilitating a deeper understanding of genetic variation and function, our tools advance disease research, drug development, and the creation of molecular diagnostic tests. We believe that this will trigger a fundamental shift in the practice of medicine and health care, and that the increased emphasis on preventive and predictive molecular medicine will usher in the era of precision health care.

Our Principal Markets

We target the markets and customers outlined below.

Research and Applied

Historically, our core business has been in the life sciences research market. This includes laboratories associated with universities, research centers, and government institutions, along with biotechnology and pharmaceutical companies. Researchers at these institutions use our products and services for basic and translational research across a spectrum of scientific applications, including targeted, exome, and whole-genome sequencing; genetic variation; gene expression; epigenetics; and metagenomics. NGS technologies are being adopted due to their ability to cost-effectively sequence large sample sizes quickly and accurately, generating vast amounts of high-quality data. Both private and public funding drive this research, along with global initiatives to characterize genetic variation.

Our products also serve various applied markets including consumer genomics and agrigenomics. For example, in consumer genomics, our customers use our technologies to provide personalized genetic data and analysis to individual consumers. In agrigenomics, government and corporate researchers use our products and services to explore the genetic and biological basis for productivity and nutritional constitution in crops and livestock. Researchers can identify natural and novel genomic variation and deploy genome-wide marker-based applications to accelerate breeding and production of healthier and higher-yielding crops and livestock.

Clinical

We are focused on enabling translational and clinical markets through the introduction of best-in-class sequencing technology. Further, we are developing sample-to-answer solutions to catalyze adoption in the clinical setting, including in reproductive and genetic health and oncology. In reproductive health, our primary focus is driving noninvasive prenatal testing (NIPT) adoption globally through our technology, which identifies fetal chromosomal abnormalities by analyzing cell-free DNA in maternal blood. Our NGS technology is also accelerating rare and undiagnosed disease research to discover the genetic causes of inherited disorders by assessing many genes simultaneously. Using NGS can reduce costs compared to traditional methods of disease diagnosis, which are often expensive and inconclusive while requiring extensive testing.

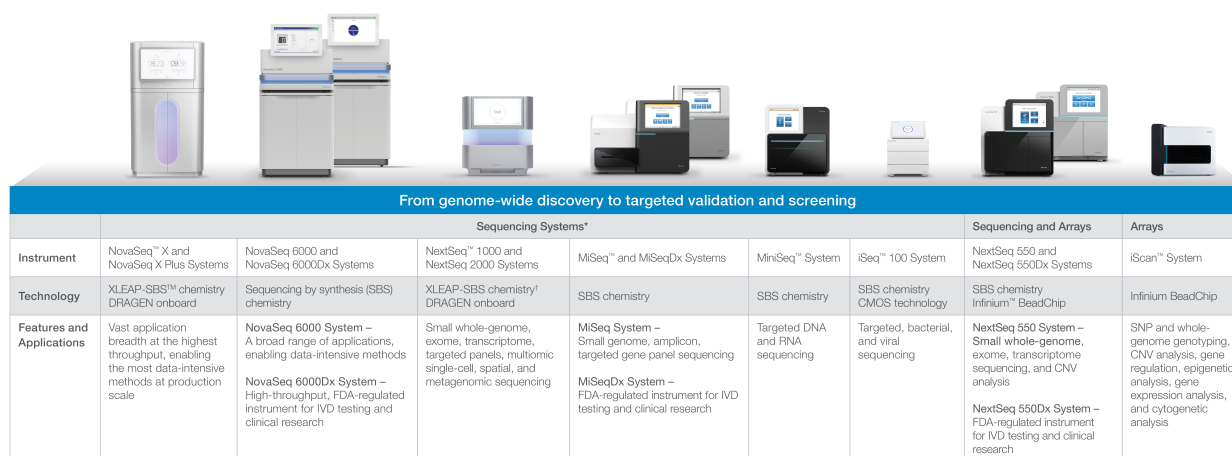
Cancer is a disease of the genome, and the goal of cancer genomics is to identify genomic changes that transform a normal cell into a cancerous one. Understanding these genomic changes will improve diagnostic accuracy, increase understanding of the prognosis, and enable oncologists to target therapies to individuals. Customers in the translational and clinical oncology markets use our products to perform research that may help identify individuals who are genetically predisposed to cancer and to identify molecular changes in a tumor. We believe that circulating tumor DNA (ctDNA) will become an important clinical tool for managing oncology patients during all stages of tumor progression. Our technology is being used to research the implications of ctDNA in treatment determination, treatment monitoring, minimal residual disease, and asymptomatic screening. For example, GRAIL’s Galleri blood test for early-stage cancer detection is enabled by our sequencing technology.

Our Principal Products, Services, and Technologies

Our unique technology platforms support the scale of experimentation necessary for population-scale studies, genome-wide discovery, target selection, and validation studies (see Figure 1 below). Customers use our products to analyze the genome at all levels of complexity, from targeted panels to whole-genome sequencing. A large and dynamic Illumina user community has published hundreds of thousands of customer-authored scientific papers using our technologies. Through rapid innovation, we are changing the economics of genetic research, enabling projects that were previously considered impossible, and supporting clinical advances towards precision medicine.

Most of our product sales consist of sequencing- and array-based instruments and consumables, which include reagents, flow cells, and library preparation, based on our proprietary technologies. We also perform various services for our customers. In 2023, 2022, and 2021, instrument sales represented 16%, 16%, and 17%, respectively, of total revenue; consumable sales represented 68%, 70%, and 71%, respectively, of total revenue; and services represented 16%, 14%, and 12%, respectively, of total revenue.

Figure 1: Illumina Platform Overview:



*Our HiSeq™ series of instruments, including the HiSeq 4000 and HiSeq X, have been discontinued and are not included in this chart. However, we continue to provide support and sell consumables to customers through March 31, 2024 (while supplies last).
 †XLEAP-SBS chemistry available for NextSeq 2000 P4 flow cell in Q1 2024. XLEAP-SBS chemistry will become available on other NextSeq 1000 and NextSeq 2000 flow cells later in 2024.

Sequencing

DNA sequencing is the process of determining the order of nucleotide bases (A, C, G, or T) in a DNA sample. Our portfolio of sequencing platforms represents a family of systems that we believe set the standard for productivity, cost-effectiveness, and accuracy among NGS technologies. Customers use our platforms to perform whole-genome, de novo, exome and RNA sequencing, and targeted resequencing of specific gene regions and genes.

Whole-genome sequencing determines the complete DNA sequence of an organism. In de novo sequencing, the goal is to sequence and assemble the genome of that sample without using information from prior sequencing of that species. In targeted resequencing, a portion of the sequence of an organism is compared to a standard or reference sequence from previously sequenced samples to identify genetic variation. Understanding the similarities and differences in DNA sequence between and within species helps us understand the function of the structures encoded in the DNA.

Our DNA sequencing technology is based on our proprietary reversible terminator-based sequencing chemistry, referred to as sequencing by synthesis (SBS) biochemistry. SBS tracks the addition of labeled nucleotides as the DNA chain is copied in a massively parallel fashion. In 2023, we launched XLEAP-SBS™, a faster, higher quality, and more robust version of our SBS chemistry that delivers the highest level of data accuracy and performance. Our XLEAP-SBS sequencing technology provides researchers with a broad range of applications and the ability to sequence more than 20,000 human genomes per year.

Our sequencing platforms can generate between 500 megabases (Mb) and 16.0 terabases (Tb) (equivalent to approximately 128 human genomes) of genomic data in a single run, depending on the instrument and application.

There are different price points per gigabase (Gb) for each instrument, and for different applications, which range from small-genome, amplicon, and targeted gene-panel sequencing to population-scale whole human genome sequencing. Since we launched our first sequencing system in 2007, our systems have significantly reduced the cost of sequencing. In 2023, we launched the NovaSeq™ X Plus, our new production-scale sequencing system that can sequence a human genome for as little as \$200.

Illumina informatics products play a critical role in supporting our sequencing applications and customers' needs across a range of activities, including sample preparation, instrument control and management, and post-run analysis.

Our BaseSpace Informatics Suite integrates directly with our sequencing instruments, allowing customers to manage their biological sample and sequencing runs, process and analyze the raw genomic data, and derive meaningful results. It facilitates data sharing, provides data-storage solutions and streamlines analysis through a growing number of applications developed by us and the bioinformatics community. Our DRAGEN Bio-IT Platform is used for secondary analysis and analyzes sequencing data from a variety of experiment types, including whole genomes, whole exomes, germline and somatic datasets, and RNA sequencing experiments with industry leading accuracy, speed and efficiency. Additionally, Illumina Connected Analytics is an integrated bioinformatics solution that provides a comprehensive, private, cloud-based data platform that empowers customers to manage, analyze, and explore large volumes of multi-omic data in a secure, scalable, and flexible environment.

In 2023, 2022, and 2021, total sequencing revenue comprised 91% of total revenue for all periods.

Arrays

Arrays are used for a broad range of DNA and RNA analysis applications, including SNP genotyping, CNV analysis, gene expression analysis, and methylation analysis, and enable the detection of millions of known genetic markers on a single array. Arrays are the primary technology used in consumer genomics applications.

Our BeadArray technology combines microscopic beads and a substrate in a proprietary manufacturing process to produce arrays that can perform many assays simultaneously. This facilitates large-scale analysis of genetic variation and biological function in a unique, high-throughput, cost-effective, and flexible manner. Using our BeadArray technology, we achieve high-throughput analysis via a high density of test sites per array and the ability to format arrays in various configurations. To serve the needs of multiple markets and market segments, we can vary the size, shape, and format of the substrate into which the beads self-assemble and create specific bead types for different applications. Our iScan System and our NextSeq 550 System can be used to image arrays.

In 2023, 2022, and 2021, total array revenue comprised 9% of total revenue for all periods.

Consumables

We have developed various library preparation and sequencing kits to simplify workflows and accelerate analysis. Our sequencing applications include whole-genome sequencing kits, which sequence entire genomes of any size and complexity, and targeted resequencing kits, which can sequence exomes, specific genes, RNA or other genomic regions of interest. Our sequencing kits maximize the ability of our customers to characterize the target genome accurately and are sold in various configurations, addressing a wide range of applications.

Customers use our array-based genotyping consumables for a wide range of analyses, including diverse species, disease-related mutations, and genetic characteristics associated with cancer. Customers can select from a range of human, animal, and agriculturally relevant genome panels or create their own custom arrays to investigate millions of genetic markers targeting any species.

Services

We offer support services to customers who have purchased our products. In addition, we provide whole-genome sequencing, genotyping, NIPT, and product support services. Human whole-genome sequencing services are provided through our CLIA-certified, CAP-accredited laboratory. Using our services, customers can perform whole-genome sequencing projects and microarray projects (including large-scale genotyping studies and whole-genome association studies). We also provide NIPT services through our partner laboratories that direct samples to us on a test send-out basis in our CLIA-certified, CAP-accredited laboratory.

GRAIL

GRAIL's multi-cancer early detection test, Galleri, is designed as a screening test for adults with an elevated risk for cancer, such as those aged 50 or older, and was commercially launched in 2021 as a laboratory developed test. In addition to Galleri, GRAIL is developing solutions to help accelerate cancer diagnoses, blood-based detection for minimal residual disease, and other post-diagnostic applications.

Intellectual Property

We have an extensive intellectual property portfolio. As of January 2, 2024, excluding GRAIL, we owned or had exclusive licenses to 1,243 issued U.S. patents and 1,101 pending U.S. patent applications and an additional 8,650 issued patents outside the U.S. and 5,947 pending patent applications outside the U.S. Our issued and pending patents cover various aspects of our arrays, assays, oligo synthesis, sequencing technology, instruments, digital microfluidics, software, bioinformatics, and chemical-detection technologies, and our issued patents have terms that expire between 2024 and 2048. We continue to file new patent applications to protect the full range of our technologies. We have filed or have been granted counterparts for many of these patents and applications in foreign countries.

GRAIL owns certain patent applications and intellectual property and exclusively licenses certain patents, patent applications, and other intellectual property from third parties. GRAIL's patent portfolio broadly relates to methods, techniques and chemistry used to generate and analyze data using its proprietary bioinformatics and classifiers, including, for example, cfNA sequencing, marker panels, methylation signatures, bioinformatics techniques and biologically directed machine learning classifiers, which are incorporated into GRAIL's products. As of January 2, 2024, GRAIL had exclusive licenses to more than 550 issued or granted patents and more than 830 pending patent applications globally, including more than 80 issued U.S. patents. GRAIL also owned or co-owned more than 620 pending patent applications globally, including more than 190 pending U.S. non-provisional and provisional patent applications. GRAIL's patent portfolio includes patents and patent applications related to sequencing, library preparation and enrichment, marker panels, methylation profiling, and bioinformatic techniques and classifiers. GRAIL's licensed patents are expected to begin expiring in 2027. The patents that GRAIL owns or co-owns, are expected to begin expiring in 2037. These estimated expiration dates factor in terminal disclaimers and patent term adjustments for patents granted in the United States. Jurisdictions outside the United States may have different patent lifespans and expiration rules, and extensions may or may not be available in these jurisdictions, which are not factored into these estimates.

We protect our trade secrets, know-how, copyrights, and trademarks. Our success depends in part on obtaining patent protection for our products and processes, preserving trade secrets, patents, obtaining copyrights and trademarks, operating without infringing the proprietary rights of third parties, and acquiring licenses for technology or products. In addition, we invest in technological innovation, and we seek beneficial licensing opportunities to develop and maintain our competitive position.

We are party to various exclusive and nonexclusive license agreements and other arrangements with third parties that grant us rights to use key aspects of our sequencing and array technologies, assay methods, chemical detection methods, reagent kits, and scanning equipment. We have additional nonexclusive license agreements with various third parties for other components of our products. In most cases, the agreements remain in effect over the term of the underlying patents, may be terminated at our request without further obligation, and require that we pay customary royalties.

Research and Development

We have historically made substantial investments in research and development. Our research and development efforts prioritize continuous innovation coupled with product evolution.

Research and development expense in 2023, 2022, and 2021 was \$1,354 million, \$1,321 million, and \$1,185 million, respectively. We expect research and development expense for Core Illumina to slightly increase during 2024 to support business growth and continuing expansion in research and product-development efforts.

Marketing and Distribution

We market and distribute our products directly to customers in North America, Europe, Latin America, and the Asia-Pacific region. In addition, we sell through life-science distributors in certain markets within Europe, the Asia-Pacific region, Latin America, the Middle East, and Africa. We expect to continue increasing our sales and distribution resources during 2024 and beyond as we launch new products and expand our potential customer base.

Manufacturing

We manufacture sequencing and array platforms and reagent kits. In 2023, we continued to increase our manufacturing capacity, and we expect to increase our manufacturing capacity again in 2024 to meet customer demand. To address increasing product complexity and volume, we continue to automate manufacturing processes to accelerate throughput and improve quality and yield. We are committed to providing medical devices and related services that consistently meet customer and applicable regulatory requirements. We adhere to health and safety standards required by federal, state, and local health ordinances, such as standards for the use, handling, and disposal of hazardous substances. Our key manufacturing and distribution facilities operate under a quality management system certified to ISO 13485.

Raw Materials

Our manufacturing operations require a wide variety of raw materials, electronic and mechanical components, chemical and biochemical materials, and other supplies. Multiple commercial sources provide many of our components and supplies, but there are some raw materials and components that we obtain from single-source suppliers. To manage potential risks arising from single-source suppliers, we believe that, if necessary, we could redesign our products using alternative components or for use with alternative reagents or develop an internal supply capability. In addition, while we attempt to keep our inventory at minimal levels, we purchase incremental inventory as circumstances warrant to protect our supply chain. If the capabilities of our suppliers and component manufacturers are limited or stopped, due to pandemics, disasters, quality, regulatory, or other reasons, it could negatively impact our ability to manufacture our products.

Competition

Although we believe that our products and services provide significant advantages over products and services currently available from other sources, we expect continued intense competition. Our competitors offer products and services for sequencing, SNP genotyping, gene expression, and molecular diagnostics markets. In some cases, we compete for the resources our customers allocate for purchasing a wide range of sequencing and non-sequencing products used to analyze genetic variation and biological function, some of which are complementary or adjacent to our own but not directly competitive; in other cases, our products face direct competition as customers choose among sequencing and non-sequencing products that are designed to address the same use case or answer the same biological question. Some of our competitors have, or will have, substantially greater financial, technical, research, and other resources than we do, along with larger, more established marketing, sales, distribution, and service organizations. In addition, they may have greater name recognition than we do in the markets we address, and in some cases a larger installed base of systems. We expect new competitors to emerge and the intensity of competition to increase. To compete effectively, we must scale our organization and infrastructure appropriately and demonstrate that our products have superior throughput, cost, and accuracy.

Segment and Geographic Information

We have two reportable segments, Core Illumina and GRAIL. On August 18, 2021, we acquired GRAIL, and it operates as a separate reportable segment. We have included the financial results of GRAIL in our consolidated financial statements from the date of acquisition. Core Illumina relates to our core operations, excluding the results of GRAIL. See note “[11. Segments and Geographic Data](#)” within the Consolidated Financial Statements section of this report for further information concerning our reportable segments.

We currently sell our products to a number of customers outside the United States, including customers in other areas of North America, Latin America, Europe, China, and the Asia-Pacific region. Shipments to customers outside the United States totaled \$2,145 million, or 48%, of total revenue, in 2023, compared to \$2,294 million, or 50%, and \$2,331 million, or 52%, in 2022 and 2021, respectively. We consider the U.S. dollar to be the functional currency of our international operations due to the primary activities of our foreign subsidiaries. We expect that sales to international customers will continue to be an important and growing source of revenue. See note “[1. Organization and Significant Accounting Policies](#)” and note “[2. Revenue](#)” within the Consolidated Financial Statements section of this report for further information concerning our foreign and domestic operations.

Backlog

Our backlog was approximately \$653 million and \$1,030 million as of December 31, 2023 and January 1, 2023, respectively. Generally, our backlog consists of orders believed to be firm as of the balance sheet date. However, we may allow customers to make product substitutions as we launch new products. The timing of shipments depends on several factors, including agreed upon shipping schedules, which may span multiple quarters, and whether the product is catalog or custom. We expect approximately 82% of our backlog as of December 31, 2023 to be shipped in 2024, approximately 13% in 2025, and the remainder thereafter. Although we generally recognize revenue when control of our products and services is transferred to our customers, some customer contracts might require us to defer revenue recognition beyond the transfer of control.

Properties

The following table summarizes the facilities leased by Core Illumina and GRAIL as of December 31, 2023, including the location and size of each principal facility and their designated use. We believe our facilities are adequate for our current and near-term needs, and we will be able to locate additional facilities, as needed.

Location	Approximate Square Feet	Operation	Lease Expiration Dates
San Diego, CA	859,000	Office, Lab, Manufacturing, and Distribution	2025 – 2031
San Francisco Bay Area, CA *	473,000	Office, Lab, and Manufacturing	2024 – 2033
Singapore **	588,000	Office, Lab, Manufacturing, and Distribution	2024 – 2037
Durham, NC *	201,000	Office and Lab	2033
Cambridge, United Kingdom	191,000	Office, Lab, and Manufacturing	2024 – 2038
Madison, WI	133,000	Office, Lab, and Manufacturing	2033
Eindhoven, the Netherlands	90,000	Office and Distribution	2036
China	86,000	Office and Lab	2025 – 2028
Other *	147,000	Office	2024 – 2029

* Includes properties leased by both Core Illumina and GRAIL, except for Durham, NC, which is leased entirely by GRAIL.

** Excludes approximately 50,000 square feet for which the leases do not commence until 2024 and beyond.

Human Capital

To continue as a leader in genomics, we need to harness the world’s best talent and give them the opportunity to thrive. We are committed to attracting, retaining, developing, and supporting our people to enable everyone to fully contribute to our mission and deliver on the transformative power of genomics. Diversity is a competitive advantage that drives innovation in all that we do.

Our key human capital objectives include: practice diversity and inclusion in all we do to advance equity and belonging, attract extraordinary talent, invest and develop our people to create a deep and diverse pipeline, steward our employee safety and wellness, and engage our people and communities.

Additional information is included in our annual Environmental, Social, and Governance (ESG) Report, previously titled Corporate Social Responsibility (CSR) Report, located on our website at www.illumina.com/csr. Information on our website, including the ESG Report, shall not be deemed incorporated by reference into this Annual Report. Our annual ESG Report is guided by the reporting frameworks of the Global Reporting Initiative (GRI), Sustainable Accounting Standards Board (SASB), and the Task Force for Climate related Financial Disclosures (TCFD).

Core Illumina

As of December 31, 2023, Core Illumina's global workforce was comprised of approximately 9,250 full time employees, 50 part time employees, and 1,370 contingent workers. The regional representation includes approximately 5,560 employees in the Americas, 1,330 employees in Europe, 2,090 employees in Africa, Middle East and Asia, and 320 employees in Greater China. Core Illumina's global voluntary turnover rate for 2023 was 7%. Women comprised 45% of Core Illumina's global workforce. Based on self-identification data, Core Illumina's U.S. workforce is comprised of 54% minorities. Additional details on U.S. diversity demographics for 2023 will be available in our annual ESG Report, which we expect to publish in June 2024. The annual ESG report is published on our website at www.illumina.com/csr.

GRAIL

As of December 31, 2023, GRAIL's global workforce was comprised of approximately 1,340 full time employees, the majority of which are based in the United States, and approximately 380 contingent workers. GRAIL's global voluntary turnover rate for 2023 was 8%. Women comprised 55% of GRAIL's global workforce.

Cybersecurity

We recognize the importance of developing, implementing, and maintaining robust cybersecurity measures to safeguard our information systems and protect the confidentiality, integrity, and availability of our data. Our cybersecurity risk management strategy is integrated into our established enterprise risk management program, which includes defined risk, assessment, mitigation, and reporting processes. Our information security team has deployed multiple technical and operational processes to aid in our ability to continuously identify and respond to cybersecurity threats and incidents. Our cybersecurity incident management process includes impact assessment, containment, mitigation and recovery strategies.

In addition to our continuous monitoring of our information systems, we utilize third parties to provide external threat intelligence and evaluation of incident notifications in order to identify potential threats or incidents that could impact us. We also evaluate our cybersecurity program against the National Institute of Standards and Technology's Cybersecurity Framework. For all suspected cybersecurity incidents, the information security team conducts a preliminary assessment to determine the severity and impact extent of the incident and, once appropriate, a materiality assessment is made. Upon a confirmed cybersecurity incident, the information security team initiates an incident response process with goals to contain, respond, recover, protect and minimize any impacts caused by the incident. The response process includes deployment of short term and long-term technical and procedural actions as appropriate. Further, we have established a third party risk management program to monitor suppliers who have access to our information.

Our Audit Committee, a committee of our Board of Directors, is responsible for governing management's review and assessment of our cybersecurity and other information technology risks, controls, and procedures, including management's incident resolution process and any specific cybersecurity issues that could affect the adequacy of our internal controls. Our Chief Information Officer provides regular updates to the Audit Committee and to the Board of Directors. The information provided includes a review of any security risk events and improvements in our security controls.

Our information security team, under the Chief Information Officer, is led by our Chief Information Security Officer (CISO) and is responsible for assessing and managing risks from cybersecurity threats. Our CISO has over 20 years of information security experience, including as a leader of information security programs at other large enterprises, and is supported by a team of professionals focused on information security. Our information security team regularly meets to review our cybersecurity posture, the broader cybersecurity landscape and any identified cybersecurity incidents. Our information security team has procedures in place for reviewing suspected cybersecurity incidents, as well as monitoring cybersecurity risks and ongoing mitigation strategies, the status of prevention, detection, and mitigation controls and any planned future control enhancements.

We believe that risks from prior cybersecurity threats to information systems owned and used by us, including as a result of any previous cybersecurity incidents, have not materially affected our business to date. We can provide no assurance that there will not be incidents in the future or that they will not materially affect us, including our business strategy, results of operations, or financial condition. We maintain a cybersecurity insurance policy which may mitigate certain financial impacts of a cybersecurity incident. Please refer to *“Risks Relating to Information Technology Security and Continuity”* within the [“Risk Factors”](#) within the Business & Market Information Section of this report.

Environmental Matters

As a global corporate citizen, we recognize the importance of the environment to a healthy, sustainable future for our business, our patients, and communities. We are committed to the protection of our employees and the environment with an approach to continuously strengthen our environmental stewardship. We believe that we are in material compliance with current applicable laws and regulations. However, we could be held liable for damages and fines should contamination of the environment or individual exposures to hazardous substances occur. In addition, we cannot predict how changes in these laws and regulations, or the development of new laws and regulations, will affect our business operations or the cost of compliance. Further, regulators are considering, and in some cases have implemented, new environmental disclosure requirements, and California has recently enacted new disclosure rules. The cost of complying with any new disclosure regimes is uncertain. In addition, climate change may impact our business by increasing operating costs due to additional regulatory requirements, physical risks to our facilities, energy limitations, and disruptions to our supply chain. These potential risks are accounted for in our business planning, including investment in renewable energy, reducing energy and water consumption, greenhouse gas emissions, and waste production. As part of our climate action plan, we established emission reduction targets in line with a 1.5 degree pathway, established Net Zero emission commitments by 2050, and had those targets verified by the Sciences Based Target Initiative. Additional information is included in our annual ESG Report located on our website at www.llumina.com/csr.

Government Regulation

As we expand product lines to address the diagnosis of disease, regulation by governmental authorities in the United States and other countries will become an increasingly significant factor in development, testing, production, and marketing. Products that we develop in the molecular diagnostic markets, depending on their intended use, may be regulated as medical devices or in vitro diagnostic products (IVDs) by the FDA and comparable agencies in other countries. In the United States, certain of our products may require FDA clearance following a pre-market notification process, also known as a 510(k) clearance, or premarket approval (PMA) from the FDA. The usually shorter 510(k) clearance process, which we used for the FDA-cleared assays that are run on our FDA-regulated MiSeqDx instrument, generally takes from three to six months after submission, but it can take significantly longer. The longer PMA process, which we used for our FDA-cleared RAS panel that is also run on our MiSeqDx instrument, is typically much more costly and uncertain. It can take from 9 to 18 months after a complete filing, but it can take significantly longer and requires conducting clinical studies that are generally more extensive than those required for 510(k) clearance. All of the products that are currently regulated by the FDA as medical devices and IVDs are also subject to the FDA Quality System Regulation (QSR). Obtaining the requisite regulatory approvals, including the FDA quality system inspections that are required for PMA approval, can be expensive and may involve considerable delay.

In the U.S., the products we develop for oncology and non-invasive prenatal testing will be regulated by the PMA process. We cannot be certain which of our other planned molecular diagnostic products will be subject to the shorter 510(k) clearance process, or which of these will need to go through the PMA process.

The regulatory approval process for such products may be significantly delayed, may be significantly more expensive than anticipated, and may conclude without such products being approved by the FDA. Without timely regulatory approval, we will not be able to launch or successfully commercialize such products, which would adversely affect our earnings and competitive position. Many of the products that we are developing are the first of their kind, such as the Galleri test that has been developed by GRAIL. The regulatory approval pathways for such products, like the Galleri test, do not currently exist and therefore have a high degree of uncertainty. Core Illumina and GRAIL are separately collaborating with regulatory bodies to navigate this regulatory landscape.

Changes to the current regulatory framework, including the imposition of additional or new regulations, could arise at any time during the development or marketing of our products. This may negatively affect our ability to obtain or maintain FDA or comparable regulatory clearance or approval of our products. In addition, regulatory agencies may introduce new requirements that may change the regulatory requirements for us or our customers, or both. For example, the proposed rule published by the FDA in 2023 would allow the FDA to regulate laboratory developed tests (LDTs). Under the proposed rule, our customers would be required to either submit their current test for FDA approval or find an IVD manufacturer to supply them with IVDs.

If our products labeled as “For Research Use Only,” or RUO, are used, or could be used, for the diagnosis of disease, the regulatory requirements related to marketing, selling, and supporting such products could be uncertain. This is true even if such use by our customers occurs without our consent. If the FDA or other regulatory authorities assert that any of our RUO products are subject to regulatory clearance or approval, our business, financial condition, or results of operations could be adversely affected.

Our products sold as medical devices or IVDs in Europe are now regulated under the In Vitro Diagnostics Regulation (EU) 2017/746, the IVDR, that went into full enforcement in May 2022. These regulations include requirements for both presentation and review of performance data and quality-system requirements.

Certain of our products are currently available through laboratories that are certified under the Clinical Laboratory Improvements Amendments (CLIA) of 1988. These products are commonly called “laboratory developed tests,” or LDTs. For a number of years, the FDA has exercised its regulatory enforcement discretion not to regulate LDTs as medical devices if created and used within a single laboratory. However, the FDA is continually reexamining this regulatory approach and changes to the agency’s handling of LDTs could impact our business in ways that cannot be predicted at this time. We cannot predict the nature or extent of the FDA’s final guidance or regulation of LDTs, in general, or with respect to our or our customers’ LDTs, in particular. However, recent activity by the FDA indicates an increased intention to regulate LDTs in the near future.

Certification of CLIA laboratories includes standards in the areas of personnel qualifications, administration, and participation in proficiency testing, patient test management, and quality control procedures. CLIA also mandates that, for high complexity labs such as ours, to operate as a lab, we must have an accreditation by an organization recognized by CLIA such as the College of Pathologists (CAP), which we have obtained and must maintain. If we were to lose our CLIA certification or CAP accreditation, our business, financial condition, or results of operations could be adversely affected. In addition, state laboratory licensing and inspection requirements may also apply to our products, which, in some cases, are more stringent than CLIA requirements.

RISK FACTORS

Our business is subject to various risks, including those described below. In addition to the other information included in this report, the following issues could adversely affect our operating results or our stock price.

Risks Relating to Research, Development, Marketing, and Sales of Products and Services

Our continued growth is dependent on continuously developing and commercializing new products.

Our target markets are characterized by rapid technological change, changes in customer needs, existing and emerging competition, strong price competition, and frequent new product introductions. Accordingly, our continued growth depends on developing and commercializing new products and services, including improving our existing products and services, in order to address evolving market requirements on a timely basis. If we fail to innovate or adequately invest in new technologies, we could lose our competitive position in the markets that we serve.

To the extent that we fail to introduce new and innovative products, or such products are not accepted in the market or suffer significant delays in development, our financial results may suffer. An inability, for technological or other reasons, to successfully develop and introduce new products on a timely basis could reduce our growth rate or otherwise have an adverse effect on our business.

In the past, we have experienced, and are likely to experience in the future, delays in the development and introduction of new products. There can be no assurance that we will keep pace with the rapid rate of change in our markets or that our new products will adequately meet the requirements of the marketplace, achieve market acceptance, or compete successfully with third-party technologies. Some of the factors affecting our ability to develop and successfully commercialize new products and services include:

- the functionality and performance of new and existing products and services;
- the timing of introduction of new products or services relative to competing products and services;
- availability, quality, and price relative to competing products and services;
- scientists' and customers' opinions of the utility of new products or services;
- citation of new products or services in published research;
- regulatory trends and approvals; and
- our ability to acquire or otherwise gain access to third party technologies, products, or businesses.

Our success depends upon the continued emergence and growth of markets for analysis of genetic variation, and continued substantial increases in the use of sequencing as the cost of sequencing declines.

The usefulness of our technologies depends in part upon the availability of genetic data and its usefulness in clinical, research, and consumer applications. We are focusing on markets for analysis of genetic variation or biological function, namely sequencing, genotyping, and gene expression profiling. These markets are relatively new and emerging, and they may not develop as quickly as we anticipate, or reach what we expect to be their full potential. Other methods of analysis of genetic variation and biological function may emerge and displace the methods we are developing. In addition, a reduction or delay in research and development budgets and government funding may adversely affect our business. For example, changes in the regulatory environment affecting life sciences and pharmaceutical companies, and budgetary pressures resulting in reduced allocations to government agencies that fund research and development activities, such as the U.S. National Institute of Health, or NIH, could adversely affect our business or results of operations.

The introduction of next-generation sequencing technologies, including ours, has reduced the cost of sequencing by a factor of more than 10,000 and reduced the sequencing time per Gb by a factor of approximately 12,000 over the last 20 years. Consequently, demand for sequencing-related products and services has increased substantially as new applications are enabled and more sequencing is done in connection with existing applications. If, as we expect, the cost of sequencing continues to fall, we cannot be sure that the demand for related products and services will increase at least proportionately as new applications are enabled or more sequencing is done in connection with existing applications. In the future, if demand for our products and services due to lower sequencing costs is less than we expect, our business, financial condition, and results of operations will be adversely affected.

Our products may be used to provide genetic information about humans, agricultural crops, other food sources, and other living organisms. The information obtained from our products could be used in a variety of applications, which may have underlying ethical, legal, and social concerns regarding privacy and the appropriate uses of the resulting information, including preimplantation genetic screening of embryos, prenatal genetic testing, genetic engineering or modification of agricultural products, or testing genetic predisposition for certain medical conditions, particularly for those that have no known cure. Our customers' implementation of our products to provide their own products and services may raise such concerns and affect our own reputation. U.S. and international governmental authorities could, for social or other purposes, call for limits on or regulation of the use of genetic testing or prohibit testing for genetic predisposition to certain conditions, particularly for those that have no known cure. Similarly, such concerns may lead individuals to refuse to use genetics tests, even if permissible. These and other ethical, legal, and social concerns about genetic testing may limit market acceptance of our technology for certain applications or reduce the potential markets for our technology, either of which could have an adverse effect on our business, financial condition, or results of operations.

If we do not successfully manage the development, manufacturing, and launch of new products or services, including product transitions, our financial results could be adversely affected.

We face risks associated with launching new products and pre-announcing products and services when the products or services have not been fully developed or tested. In addition, we may experience difficulty in managing or forecasting customer reactions, purchasing decisions, transition requirements, or programs with respect to newly-launched products (or products in development), which could adversely affect sales of our existing products. If our products and services are not able to deliver the performance or results expected by our target markets or are not delivered on a timely basis, our reputation and credibility may suffer. If we encounter development challenges or discover errors in our products late in our development cycle, we may delay the product launch date. The expenses or losses associated with unsuccessful product development or launch activities, or a lack of market acceptance of our new products, could adversely affect our business, financial condition, or results of operations.

As we announce future products or integrate new products into our portfolio, such as new instruments or instrument platforms, we face numerous risks relating to product transitions and the evolution of our product portfolio. We may be unable to accurately forecast new product demand and the impact of new products on the demand for current or established products. We may experience challenges relating to managing excess and obsolete inventories, managing new or higher product cost structures, and managing different sales and support requirements. Announcements of currently planned or other new products may cause customers to defer or stop purchasing our current or established products until new products become available. In addition, customers may defer or stop purchasing our current or established products as they assess the features and technological characteristics of new products, as compared to our current or established products, before making a financial commitment.

We face intense competition, which could render our products obsolete, result in significant price reductions, or substantially limit the volume of products that we sell.

We compete with third parties that design, manufacture, and market products and services for analysis of genetic variation and biological function and other applications using a wide range of technologies. In some cases, we compete for the resources our customers allocate for purchasing a wide range of sequencing and non-sequencing products, some of which are complementary or adjacent to our own but not directly competitive; in other cases, our products face direct competition as customers choose among sequencing and non-sequencing products that are designed to address the same use case or answer the same biological question. For example, complementary third-party sequencing technologies address use cases to which our products are not well suited. If we are unable to develop or acquire new technologies that address these complementary sequencing applications, our rate of growth and our ability to grow the overall market for sequencing could be adversely affected.

We anticipate that we will continue to face increased competition as existing companies develop new or improved products and as new companies enter the market with new technologies. One or more of our competitors may render one or more of our technologies obsolete or uneconomical. Some of our competitors have greater financial and personnel resources, broader product lines, more focused product lines, a more established customer base, more experience and broader reach in clinical markets, and more experience in research and development than we do. Furthermore, life sciences, clinical genomics, and pharmaceutical companies, which are our potential customers and strategic partners, could also develop competing products. We believe that customers in our markets display a significant amount of loyalty to their initial supplier of a particular product; therefore, it may be difficult to generate sales to potential customers who have purchased products from competitors. To the extent we are unable to be the first to develop or supply new products, our competitive position may suffer.

The market for clinical and diagnostic products, in particular, is currently limited and highly competitive, with several large companies having significant market share, intellectual property portfolios, and regulatory expertise. For example, the market for noninvasive prenatal testing is rapidly developing, and if our competitors are able to develop and commercialize products superior to or less expensive than ours or are able to obtain regulatory clearances before we do, our business could be adversely impacted. Established clinical and diagnostic companies also have an installed base of instruments in several markets, including clinical and reference laboratories, which could deter acceptance of our products. In addition, some of these companies have formed alliances with genomics companies that provide them access to genetic information that may be incorporated into their diagnostic tests, potentially creating a competitive advantage for them.

As we develop, market, or sell diagnostic tests, we may encounter delays in receipt, or limits in the amount, of reimbursement approvals and public health funding, which will impact our ability to grow revenues in the healthcare market.

Physicians and patients may not order diagnostic tests that we develop, market, sell, or enable, such as our prenatal tests, unless third-party payors, such as managed care organizations as well as government payors such as Medicare and Medicaid and governmental payors outside of the United States, pay a substantial portion of the test price. Third-party payors are often reluctant to reimburse healthcare providers for the use of medical tests that involve new technologies or provide novel diagnostic information. In addition, third-party payors are increasingly limiting reimbursement coverage for medical diagnostic products and, in many instances, are exerting pressure on diagnostic product suppliers to reduce their prices. Reimbursement by a payor may depend on a number of factors, including a payor's determination that tests using our technologies are: not experimental or investigational; medically necessary; appropriate for the specific patient; cost-effective; supported by peer-reviewed publications; and included in clinical practice guidelines.

Since each third-party payor often makes independent reimbursement decisions and may also make decisions on an individual patient basis, obtaining such approvals is a time-consuming and costly process that requires Illumina and/or our customers to provide scientific and clinical data supporting the clinical benefits of each of our products. As a result, there can be no assurance that reimbursement approvals will be obtained. This process can delay the broad market introduction of new products, and could have a negative effect on our results of operations. As a result, third-party reimbursement may not be consistent or financially adequate to cover the cost of diagnostic products that we develop, market, or sell. This could limit our ability to sell our products or cause us to reduce prices, which would adversely affect our results of operations.

Even if tests are reimbursed, third-party payors may withdraw their coverage policies, cancel their contracts with our customers at any time, review and adjust the rate of reimbursement, require co-payments from patients, or stop paying for tests, which would reduce our revenues. In addition, insurers, including managed care organizations as well as government payors such as Medicare and Medicaid, have increased their efforts to control the cost, utilization, and delivery of healthcare services. These measures have resulted in reduced payment rates and decreased utilization for the clinical laboratory industry. Reductions in the reimbursement rate of payors may occur in the future. Reductions in the prices at which our tests are reimbursed could have a negative impact on our results of operations.

Risks Relating to Supply Chain, Manufacturing, and Quality

We depend on third-party manufacturers and suppliers for some of our products, or sub-assemblies, components, and materials used in our products, and if shipments from these manufacturers or suppliers are delayed or interrupted, or if the quality of the products, components, or materials supplied do not meet our requirements, we may not be able to launch, manufacture, or ship our products in a timely manner, or at all.

The complex nature of our products requires customized, precision-manufactured sub-assemblies, components, and materials that currently are available from a limited number of sources, and, in the case of some sub-assemblies, components, and materials, from only a single source. If deliveries from these vendors are delayed or interrupted for any reason, or if we are otherwise unable to secure a sufficient supply, we may not be able to obtain these sub-assemblies, components, or materials on a timely basis or in sufficient quantities or at satisfactory qualities. We may need to enter into contractual relationships with manufacturers for commercial-scale production of some of our products, in whole or in part, or develop these capabilities internally, and there can be no assurance that we will be able to do this on a timely basis, in sufficient quantities, satisfactory quality, or on commercially reasonable terms. In addition, the lead time needed to establish a relationship with a new supplier, and qualify their supply, can be lengthy, and we may experience delays in meeting demand in the event we must switch to a new supplier. The time and effort required to qualify a new supplier could result in additional costs, diversion of resources, or reduced manufacturing yields, any of which would negatively impact our operating results. Accordingly, we may not be able to establish or maintain reliable, high-volume manufacturing at commercially reasonable costs. In addition, the manufacture or shipment of our products may be delayed or interrupted if the quality of the products, sub-assemblies, components, or materials supplied by our vendors does not meet our requirements. Current or future social and environmental regulations or critical issues, such as those relating to the sourcing of minerals from conflict-affected areas such as the Democratic Republic of the Congo or the need to eliminate environmentally sensitive materials from our products, could restrict the supply of components and materials used in production or increase our costs. Any delay or interruption to our manufacturing process or in shipping our products could result in lost revenue, which would adversely affect our business, financial condition, or results of operations.

If defects are discovered in our products, we may incur additional unforeseen costs, our products may be subject to recalls, customers may not purchase our products, our reputation may suffer, and ultimately our sales and operating earnings could be negatively impacted.

Our products incorporate complex, precision-manufactured mechanical parts, electrical components, optical components, and fluidics, as well as computer software and complex surface chemistry, biochemistry and reagents, any of which may contain or result in errors or failures, especially when first introduced. In the course of conducting our business, we must adequately address quality issues associated with our products and services, including defects in our engineering, design, and manufacturing processes, as well as defects in third-party components included in our products. In addition, new products or enhancements may contain undetected errors or performance problems that, despite testing, are discovered only after commercial shipment. Defects or errors in our products may discourage customers from purchasing our products. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating margins. Identifying the root cause of quality issues, particularly those affecting reagents and third-party components, may be difficult, which increases the time needed to address quality issues as they arise, and increases the risk that similar problems could recur. Because our products are designed to be used to perform complex genomic analysis, we expect that our customers will have an increased sensitivity to such defects. If we do not meet applicable regulatory or quality standards, our products may be subject to recall, and, under certain circumstances, we may be required to notify applicable regulatory authorities about a recall. If our products are subject to recall or shipment holds, our reputation, business, financial condition, or results of operations could be adversely affected.

If we are unable to increase our manufacturing or service capacity and develop and maintain operation of our manufacturing or service capability, we may not be able to launch or support our products or services in a timely manner, or at all.

We expect to increase our manufacturing and service capacity to meet the anticipated demand for our products. Although we have consistently increased our manufacturing and service capacity, and we believe we have plans in place sufficient to ensure we have adequate capacity to meet our current business plans, there are uncertainties inherent in expanding our manufacturing and service capabilities, and we may not be able to sufficiently increase our capacity in a timely manner. For example, manufacturing and product quality issues may arise as we increase production rates at our manufacturing facilities and launch new products. Also, we may not manufacture the right product mix to meet customer demand, especially as we introduce new products. As a result, we may experience difficulties in meeting customer, collaborator, and internal demand, in which case we could lose customers or be required to delay new product introductions, and demand for our products could decline. Additionally, in the past, we have experienced variations in manufacturing conditions and quality control issues that have temporarily reduced or suspended production of certain products. Due to the intricate nature of manufacturing complex instruments, consumables, and products that contain DNA and enzymes, we may encounter similar or previously unknown manufacturing difficulties in the future that could significantly reduce production yields, impact our ability to launch or

sell these products (or to produce them economically), or prevent us from achieving expected performance levels, any of which could adversely affect our business, financial condition, or results of operations.

An interruption in our ability to manufacture our products or an inability to obtain key components or raw materials due to a catastrophic disaster, infectious disease, or infrastructure failure could adversely affect our business.

We currently manufacture in a limited number of locations. Our manufacturing facilities are located in San Diego and the San Francisco Bay Area in California; Madison, Wisconsin; Cambridge, United Kingdom; and Singapore. These areas are subject to natural disasters such as earthquakes, wildfires, or floods. If a natural disaster were to damage one of our facilities significantly or if other events, such as the outbreak of a serious infectious disease, were to cause our operations to fail or be significantly curtailed, we may be unable to manufacture our products, provide our services, or develop new products. In addition, if the capabilities of our suppliers and component manufacturers are limited or stopped, due to the outbreak of a serious infectious disease, natural or other disasters, quality, regulatory, or other reasons, it could negatively impact our ability to manufacture our products.

Many of our product manufacturing and distribution processes are automated and are controlled by information management systems, including significant network and storage infrastructure. If either our information management systems or our network or storage infrastructure were to fail for an extended period of time, our ability to manufacture our products on a timely basis could be adversely impacted and we could be prevented from achieving our expected shipments in any given period.

Risk Relating to Public Health Crises

We are unable to predict the extent to which public health crises, such as the COVID-19 pandemic, may adversely impact our business operations and financial performance.

Our global operations expose us to risks associated with public health crises. For example, the COVID-19 pandemic significantly curtailed the movement of people, goods and services worldwide, including in the regions in which we sell our products and services and conduct our business operations. How a future public health crisis may impact our business activity could (1) negatively impact the demand for our products and services, (2) restrict our sales operations, marketing efforts, and customer field support, (3) impede the shipping and delivery of our products to customers (4) disrupt our supply chain, and (5) limit our ability to conduct research and product development and other important business activities. We continue to monitor our operations and applicable government mandates and recommendations, and we have made modifications to our operations because of the COVID-19 pandemic. In the event of a public health crisis, we may incur increased costs and experience delays in sales, purchases, deliveries and other business activities associated with the invocation by customers, suppliers, service providers, and other business partners of contractual provisions they may claim are triggered by such an event. Additionally, concerns over the economic impact of a public health crisis like the COVID-19 pandemic could cause volatility in financial and other capital markets which may adversely impact the fair value of our marketable securities.

Risk Relating to the Protection of Our Intellectual Property

Any inability to effectively protect our proprietary technologies could harm our competitive position.

The proprietary positions of companies developing tools for the life sciences, genomics, forensics, agricultural, and pharmaceutical industries, including our proprietary position, generally are uncertain and involve complex legal and factual questions. Our success depends to a large extent on our ability to develop proprietary products and technologies and to obtain patents and maintain adequate protection of our intellectual property in the United States and other countries. The laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the United States, and many companies have encountered significant challenges in establishing and enforcing their proprietary rights outside of the United States. These challenges can be caused by the absence of rules and methods for the establishment and enforcement of intellectual property rights outside of the United States.

We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies are covered by valid and enforceable patents or are effectively maintained as trade secrets. Any finding that our patents or applications are unenforceable could harm our ability to prevent others from practicing the related technology, and a finding that others have inventorship or ownership rights to our patents and applications could require us to obtain certain rights to practice related technologies, which may not be available on favorable terms, if at all. Furthermore, as issued patents expire, including those related to our sequencing-by-synthesis technology, we may lose some competitive advantage as others develop, market, and sell competing products, which could negatively affect our revenue.

In addition, our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products and may therefore fail to provide us with any competitive advantage. We may need to initiate lawsuits to protect or enforce our patents, or litigate against third-party claims, which would be expensive, and, if we lose, may cause us to lose some of our intellectual property rights and reduce our ability to compete in the marketplace. Furthermore, these lawsuits may divert the attention of our management and technical personnel. There is also the risk that others may independently develop similar or alternative technologies or design around our patented technologies. In that regard, certain patent applications in the United States may be maintained in secrecy until the patents issue, and publication of discoveries in the scientific or patent literature tend to lag behind actual discoveries by several months.

We also rely upon trade secrets and proprietary know-how protection for our confidential and proprietary information, and we have taken security measures to protect this information. These measures, however, may not provide adequate protection for our trade secrets, know-how, or other confidential information. Additionally, the use of artificial intelligence (AI) based software is increasingly common. Use of AI based software may lead to the inadvertent release of confidential proprietary information which may impact our ability to realize the benefit of our intellectual property.

Risks Related to Acquisitions, Including the Acquisition of GRAIL

Our acquisitions expose us to risks that could adversely affect our business, and we may not achieve the anticipated benefits of acquisitions of businesses or technologies.

As part of our strategy to develop and identify new products, services, and technologies, we have made, and may continue to make, acquisitions of technologies, products, or businesses. Acquisitions involve numerous risks and operational, financial, and managerial challenges, including the following, any of which could materially and adversely affect our business, financial condition, or results of operations:

- challenges, costs, delays, and uncertainty associated with obtaining any required regulatory approvals;
- difficulties in integrating new operations, technologies, products, and personnel;
- lack of synergies or the inability to realize expected synergies and cost-savings;
- lengthy, expensive, and time and resource-intensive regulatory review processes, the outcomes of which can be unpredictable;
- difficulties in managing geographically dispersed operations;
- underperformance of any acquired technology, product, or business relative to our expectations and the price we paid;
- negative near-term impacts on financial results after an acquisition, including acquisition-related earnings charges;
- the potential loss of key employees, customers, and strategic partners of acquired companies;
- claims by terminated employees and shareholders of acquired companies or other third parties related to the transaction;
- the issuance of dilutive securities, assumption or incurrence of additional debt obligations or expenses, or use of substantial portions of our cash;
- diversion of management's attention and company resources from existing operations of the business;

- inconsistencies in standards, controls, procedures, and policies;
- the impairment of intangible assets as a result of technological advancements, or worse-than-expected performance of acquired companies; and
- assumption of, or exposure to, known or unknown contingent liabilities or liabilities that are difficult to identify or accurately quantify.

In addition, the successful integration of acquired businesses requires significant efforts and expense across all operational areas, including sales and marketing, research and development, manufacturing, finance, legal, and information technologies. There can be no assurance that any of the acquisitions we make will be successful or will be, or will remain, profitable. Our failure to successfully address the above risks may prevent us from achieving the anticipated benefits from any acquisition in a reasonable time frame, or at all.

Our acquisition of GRAIL remains subject to ongoing legal and regulatory proceedings in the United States and in the European Union. On December 17, 2023, we announced that we will divest GRAIL. Adverse decisions by the EU and/or U.S. courts, the European Commission, the FTC and/or other governmental or regulatory authorities, that have been issued in the past or may be issued in the future, and/or other adverse consequences resulting from our decision to proceed with the completion of the acquisition, have resulted in significant financial penalties, operational restrictions and increased costs, and could result in similar additional future consequences or further result in loss of revenues, implicate our existing contractual arrangements or require us to divest all or a portion of the assets or equity interests of GRAIL on terms that are materially worse than the terms on which we acquired GRAIL, any or all of which, individually or in the aggregate, could have a material adverse effect on our business, financial condition and results of operation.

As previously disclosed, on March 30, 2021, the FTC filed an administrative complaint alleging that our acquisition of GRAIL (the Acquisition) would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18. On September 1, 2022, the administrative law judge (the ALJ) ruled in favor of Illumina and found that the acquisition of GRAIL did not violate Section 7 of the Clayton Act. The FTC's complaint counsel appealed the ALJ's decision to the full FTC on September 2, 2022. On March 31, 2023, the FTC issued an opinion and order (the FTC Order) requiring Illumina to divest GRAIL, reversing the ALJ's ruling. On April 5, 2023, Illumina filed a petition for review of the FTC Order in the U.S. Court of Appeals for the Fifth Circuit. On April 24, 2023, the FTC granted a motion staying in its entirety the FTC Order pending resolution of Illumina's Fifth Circuit appeal. On December 15, 2023, the Fifth Circuit issued its opinion and order, in which the court ruled that the Commission applied the incorrect standard in assessing Illumina's open offer contract, and on that basis vacated the FTC Order and remanded the case to the Commission for reconsideration of the effects of the open offer contract under the proper standard as described in the Fifth Circuit's decision, and in all other respects upheld the Commission's decision.

As previously disclosed, on April 19, 2021, the European Commission accepted a request for referral of the Acquisition (the Referral) for European Union merger review under Article 22(1) of Council Regulation (EC) No 139/2004 (the EU Merger Regulation), which had been submitted by a Member State of the European Union. On July 13, 2022, the EU General Court ruled that the European Commission has jurisdiction to review the Acquisition under the EU Merger Regulation. On September 22, 2022, we filed an appeal in the Court of Justice of the European Union asking for annulment of the EU General Court's decision. On December 12, 2023, the Court of Justice of the European Union held a hearing on the appeal.

As previously disclosed, on October 29, 2021, the European Commission adopted an order imposing interim measures (the Initial Interim Measures Order), which was renewed on October 28, 2022 (subject to (x) certain operational modifications and (y) an express prohibition on Illumina selling, transferring, encumbering or otherwise disposing of GRAIL or any of GRAIL's assets), provided that (i) we ensure that Illumina and GRAIL will continue to operate as independent legal entities that transact at arms' length, no integration activity will take place, the day-to-day operation of GRAIL will remain the sole responsibility of GRAIL's management and our management will have no involvement in or influence over GRAIL, (ii) we take certain supportive measures to preserve GRAIL's viability, marketability and competitiveness, including with respect to the provision of resources to GRAIL and the retention and/or replacement of key personnel of GRAIL, (iii) subject to limited exceptions, we implement all necessary measures to ensure that Illumina does not obtain any confidential information relating to GRAIL during the hold separate period and vice versa and (iv) we appoint an independent firm as monitoring trustee to monitor our compliance with the Initial Interim Measures Order. An independent monitoring trustee has been appointed. Such hold separate arrangement, and our obligations pursuant thereto, have imposed implementation and administrative processes and additional legal, financial advisory, regulatory and other professional services costs, which have been

burdensome to implement and administer, and which we expect to continue for the duration of the hold separate arrangement (in the form of transitional measures imposed on Illumina pursuant to a decision adopted by the European Commission on October 12, 2023 (the EC Divestment Decision), which replaced the New Interim Measures Order). Such burdens and additional costs, independently or together with additional burdens, costs and/or liabilities arising from such arrangement, may result in loss of revenue and other adverse effects on our business, financial condition and results of operations. Moreover, our failure to comply with the terms of the EC Divestment Decision may result in the European Commission seeking to impose fines or other penalties on us. On January 10, 2023, we filed an action with the EU General Court asking for annulment of the New Interim Measures Order. On January 20, 2023, the European Commission requested that these proceedings be stayed pending our appeal on jurisdiction.

We submitted a filing indicating that we had no objections to the European Commission's request, and the EU General Court stayed the proceedings on February 21, 2023.

On September 6, 2022, the European Commission announced that it had completed its Phase II review of the Acquisition and adopted a final decision (the Prohibition Decision), which found that, in its view, our acquisition of GRAIL was incompatible with the internal market in Europe because it results in a significant impediment to effective competition. On November 17, 2022, we filed an action with the EU General Court asking for annulment of the Prohibition Decision. On October 12, 2023, the European Commission adopted the EC Divestment Decision requiring us to (among other things) divest GRAIL and imposing the transitional measures. On December 22, 2023, we filed an action with the EU General Court seeking an annulment of the EC Divestment Decision.

The Prohibition Decision, the EC Divestment Decision, and any order or decision by the FTC or any other governmental or regulatory authority pursuant to which Illumina is required to divest GRAIL (an FTC Divestment Decision), if implemented once final and non-appealable or during the pendency of the applicable appeals proceedings, and our obligations pursuant thereto, have imposed in the past and may impose in the future significant costs and additional liabilities on us, including significant legal, financial advisory, regulatory and other professional services fees and additional expenses, and may result in loss of revenue and other adverse effects on our business, financial condition and results of operations. Such adverse effects could include divesting GRAIL on terms that are materially worse than the terms on which we acquired GRAIL. Furthermore, we may not be able to direct the timing, structure or financial terms of such divestment, which could result in negative financial or tax consequences. For example, we are unlikely to be able to, in a sale of GRAIL, effect such sale in a non-taxable transaction and so would incur significant tax liabilities attributable to the recognition of taxable gain equal to the difference between (i) the fair market value of any consideration received and (ii) our tax basis in GRAIL (which tax basis is currently estimated to be between zero and \$500 million). In addition, any such divestment will likely implicate certain provisions in our third-party contracts and other agreements, including our obligations with respect to the contingent value rights (the CVRs) issued by us as part of the Acquisition. We may be unable to fully discharge our obligations with respect to the CVRs in connection with any such divestiture, and/or such divestiture may result in a change in obligor on the CVRs. Moreover, the business of GRAIL may be adversely affected by any such divestment, which could adversely affect the market value of the CVRs. The EC Divestment Decision requires us to ensure that GRAIL has access to sufficient funds to cover at least 2.5 years of operations according to its latest long-range plan.

The Initial Interim Measures Order, the New Interim Measures Order, the Prohibition Decision, and the EC Divestment Decision, or an FTC Divestment Decision or any other order or decision by any other governmental or regulatory authority, if implemented once final and non-appealable or during the pendency of the applicable appeals proceedings, have in the past and could may also in the future divert management's attention and company resources away from existing operations and other opportunities that may have been beneficial to us, any or all of which, individually or in the aggregate, could have a material adverse effect on our business, financial condition and results of operation. We have experienced and might continue to experience negative impacts on our stock price. We cannot predict what other adverse consequences to, among other things, our reputation, our relationships with governmental or regulatory authorities, or our ability to successfully complete future transactions, our ability to attract, retain and motivate customers, key personnel and those with whom we conduct business may result.

On July 12, 2023, the European Commission adopted a final decision finding that we breached the EU Merger Regulation by, in its view, acquiring the possibility to exert decisive influence over GRAIL and exerting such influence during the pendency of the European Commission's review (the Article 14(2)(b) Decision). The European Commission therefore imposed a fine on us pursuant to Article 14(2)(b) of the EU Merger Regulation of approximately €432 million, representing the maximum fine of 10% of our consolidated annual revenues for fiscal year 2022. We provided guarantees in October 2023 to satisfy the obligation in lieu of cash payment while we appeal the European Commission's jurisdictional decision and fine decision. As of December 31, 2023, we accrued \$484 million, including related foreign currency losses and accrued interest, included in accrued liabilities. In addition, the European

Commission, the FTC and/or other governmental or regulatory authorities may seek to impose other fines, penalties, remedies or restrictions. We expect to continue to hold the assets or equity interests of GRAIL separate until the divestment of GRAIL is effected, which could result in additional costs or liabilities, loss of revenue and other adverse effects on our business, financial condition and results of operations. In addition, under applicable accounting rules, we may be required from time to time to perform interim analyses of the value of GRAIL. To the extent that the value of GRAIL on a standalone basis is less than its book value, we would be required to record an impairment on our consolidated financial statements. As previously disclosed, we recorded a goodwill impairment of \$712 million related to our GRAIL reporting unit in the third quarter of 2023, primarily due to a decrease in our consolidated market capitalization and a higher discount rate selected for the fair value calculation of the GRAIL reporting unit.

On December 17, 2023, we announced that we will divest GRAIL. The divestiture is expected to be executed through a third-party sale or capital markets transaction in accordance with the EC Divestment Decision, with the goal of finalizing the terms of the divestiture by the end of the second quarter of 2024. There can be no assurance regarding the ultimate timing of the divestiture of GRAIL. Completion of the divestiture of GRAIL will be subject to the satisfaction of certain conditions, including, approval by the European Commission and the receipt of other regulatory approvals. There can be no assurance regarding the ultimate timing of the divestiture of GRAIL. Unanticipated developments could delay, prevent or otherwise adversely affect the divestiture of GRAIL, including but not limited to disruptions in general or financial market conditions or potential problems or delays in obtaining various regulatory clearances.

Furthermore, we have and may continue to become subject to stockholder inspection demands under Delaware law, investigations initiated by regulators and law firms, and derivative or other similar litigation that can be expensive, divert management attention and human and financial capital to less productive uses and result in potential reputational damage. The GRAIL acquisition and subsequent litigation resulted in (i) the announcement of an investigation by the SEC and others by law firms of possible securities law violations; (ii) stockholder inspection demands seeking to investigate possible breaches of fiduciary duties, corporate wrongdoing or a lack of independence of the members of the Board; (iii) the filing of three securities class actions in the United States District Court for the Southern District of California: *Kangas v. Illumina, Inc. et al.*, *Roy v. Illumina, Inc. et al.* and *Louisiana Sheriffs' Pension & Relief Fund v. Illumina, Inc. et al.*; (iv) the filing of two securities class actions in the Superior Court of the State of California, County of San Mateo: *Loren Scott Mar v. Illumina, et al.* and *Scott Zerkane v. Illumina, Inc. et al.*; and (v) the filing of a stockholder derivative and class action complaint captioned *Icahn Partners LP, et al. v. deSouza, et al.*. The *Icahn Partners LP, et al. v. deSouza, et al.* complaint, purportedly brought on behalf of Illumina and public holders of Illumina's common stock, was filed in the Delaware Court of Chancery against certain current and former directors (including our former Chief Executive Officer). We are named as a nominal defendant in the complaint. The lawsuit alleges the named directors breached their fiduciary duties by knowingly causing Illumina to unlawfully close the GRAIL acquisition, concealing material facts related to the GRAIL acquisition and making inadequate disclosures. See note ["8. Legal Proceedings"](#) within the Consolidated Financial Statements section of this report for further details. In the event that any of the matters described above result in one or more adverse judgments or settlements, we may experience an adverse impact on our financial condition, results of operations or stock price.

We are subject to various uncertainties and restrictions while the Acquisition remains subject to ongoing regulatory and legal review and proceedings related thereto, including the EC Divestment Decision, that could adversely affect our business, financial condition and results of operations.

During the period in which the Acquisition remains subject to ongoing regulatory and legal review and proceedings related thereto, it is possible that customers, suppliers, commercial partners and/or other persons with whom we have a business relationship may elect to delay or defer certain business decisions or decide to seek to terminate, change or renegotiate their relationships with us because of the Acquisition or the various uncertainties related to the ongoing review of the Acquisition, other legal and regulatory proceedings, and/or the hold separate arrangement required by the EC Divestment Decision, which could significantly reduce the expected benefits of the Acquisition and/or negatively affect our revenues, earnings and cash flows, and the market price of our common stock, regardless of the ultimate outcome of such review and proceedings. Uncertainty about the effects of the Acquisition (and about the related regulatory and judicial review process) on employees may impair our ability to attract, retain and motivate key personnel while the Acquisition remains subject to ongoing regulatory and legal review and proceedings, and for a period of time thereafter. If key employees depart because of these or other issues, we and GRAIL may have to incur additional and significant costs in identifying, hiring and retaining replacements for departing employees and may lose significant expertise and talent. Matters relating to the Acquisition (including the regulatory and legal review and proceedings related thereto and the hold separate arrangement required by the EC Divestment Decision) require substantial commitments of time and resources by Illumina management and personnel and will continue in the future, which otherwise would have been devoted to day-to-day operations and other opportunities that may have been

beneficial to us. We will also incur significant costs related to the ongoing review and proceedings related to the Acquisition (including to comply with the hold separate obligations required by the EC Divestment Decision). These costs are substantial and include financial advisory, legal, monitoring trustee, and accounting costs.

The market price of our common stock may decline as a result of the Acquisition and the final outcomes of the regulatory and judicial reviews thereof.

The market price of our common stock may decline as a result of the Acquisition and the final outcomes of the regulatory and judicial reviews thereof, and holders of our common stock could see a decrease in the value of their investment in our common stock, if, among other things, we are unable to achieve the expected growth in earnings, or if the anticipated benefits, including synergies, cost savings, innovation and operational efficiencies, from the Acquisition are not realized, or if the Acquisition and integration-related costs related to the Acquisition are greater than expected, or if, as a result of unfavorable outcomes of regulatory and judicial proceedings, we are subject to fines, penalties, restrictions or remedies, including divestiture remedies. The market price of our common stock may also decline if we do not achieve the anticipated benefits of the Acquisition as rapidly or to the extent expected by financial or industry analysts or if the effects of the Acquisition on our financial position, results of operations or cash flows are not otherwise consistent with the expectations of financial or industry analysts. In addition, some former GRAIL stockholders may decide not to continue to hold the shares of our common stock they receive as a result of the Acquisition, and any such sales of our common stock could have the effect of depressing their market price. Moreover, general fluctuations in stock markets could have a material adverse effect on the market for, or liquidity of, our common stock, regardless of our actual operating performance.

Risks Relating to Our Strategic Collaborations

If we fail to maintain and successfully manage our strategic collaborations, our future results may be adversely impacted.

Strategic collaborations require significant management attention and operational resources. If we are unable to successfully manage or meet milestones related to our strategic collaborations, or if our partners do not perform as we expect, our future results may be adversely impacted. Furthermore, dependence on collaborative arrangements may also subject us to other risks, including:

- we may be required to relinquish important rights, including intellectual property, marketing and distribution rights;
- we may disagree with our partners as to rights to intellectual property, the direction of research programs, or commercialization activities;
- our revenues may be lower than if we were to develop and commercialize such products ourselves;
- a collaboration partner could develop and market a product that is competitive with either products developed under the collaboration or other of our products, either independently or in collaboration with others, including our competitors;
- our partners could become unable or less willing to expend their resources in support of our collaboration;
- collaborations could expose us to additional regulatory risks; and
- we may be unsuccessful at managing multiple simultaneous collaborations.

Moreover, disagreements with a partner or former partner could develop, and any conflict with a partner or former partner could reduce our ability to enter into future collaboration agreements and negatively impact our relationships with one or more existing partners.

Risks Relating to Litigation

Litigation, other proceedings, or third-party claims of intellectual property infringement could require us to spend significant time and money and could prevent us from selling our products or services.

Our success depends in part on our non-infringement of the patents or proprietary rights of third parties. Third parties have asserted and may in the future assert that we are employing their proprietary technology without authorization. As we enter new markets or introduce new products, we expect that competitors will likely claim that our products infringe their intellectual property rights as part of a business strategy to impede our successful competition. In addition, third parties may have obtained and may in the future obtain patents allowing them to claim that the use of our technologies infringes these patents. We could incur substantial costs and divert the attention of our management and technical personnel in defending ourselves against any of these claims. Any adverse ruling or perception of an adverse ruling in defending ourselves against these claims could have an adverse impact on our stock price, which may be disproportionate to the actual impact of the ruling itself. Furthermore, parties making claims against us may be able to obtain injunctive or other relief, which effectively could block our ability to develop further, commercialize, or sell products or services, and could result in the award of substantial damages against us. In the event of a successful infringement claim against us, we may be required to pay damages and obtain one or more licenses from third parties or be prohibited from selling certain products or services. In addition, we may be unable to obtain these licenses at a reasonable cost, if at all. We could therefore incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins and earnings per share. In addition, we could encounter delays in product introductions while we attempt to develop alternative methods or products. Defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing products, and the prohibition of sale of any of our products or services could adversely affect our ability to grow or maintain profitability.

If product or service liability lawsuits are successfully brought against us, we may face reduced demand for our products and incur significant liabilities.

Our products and services are used for sensitive applications, and we face an inherent risk of exposure to product or service liability claims if our products or services are alleged to have caused harm, resulted in false negatives or false positives, or do not perform in accordance with specifications. Product liability claims filed against us or against third parties to whom we may have an obligation could be costly and time-consuming to defend and result in substantial damages or reputational risk. We cannot be certain that we would be able to successfully defend any product or service liability lawsuit brought against us. Regardless of merit or eventual outcome, product or service liability claims may result in: decreased demand for our products; injury to our reputation; increased product liability insurance costs; costs of related litigation; and substantial monetary awards to plaintiffs.

Although we carry product and service liability insurance, if we become the subject of a successful product or service liability lawsuit, our insurance may not cover all substantial liabilities, which could have an adverse effect on our business, financial condition, or results of operations.

Risks Relating to Government Regulation

Our products, if used for the diagnosis of disease, could be subject to government regulation, and the regulatory approval and maintenance process for such products may be expensive, time-consuming, and uncertain both in timing and in outcome.

Our products are not subject to FDA clearance or approval if they are not intended to be used for the diagnosis, treatment or prevention of disease. However, as we expand our product line to encompass products that are intended to be used for the diagnosis of disease, such as our FDA-regulated MiSeqDx, certain of our products will become subject to regulation by the FDA, or comparable international agencies, including requirements for regulatory clearance or approval of such products before they can be marketed. Such regulatory approval processes or clearances may be expensive, time-consuming, and uncertain, and our failure to obtain or comply with such approvals and clearances could have an adverse effect on our business, financial condition, or operating results. In addition, changes to the current regulatory framework, including the imposition of additional or new regulations, could arise at any time during the development or marketing of our products, which may negatively affect our ability to obtain or maintain FDA or comparable regulatory approval of our products, if required.

Diagnostic products are regulated as medical devices by the FDA and comparable international agencies and may require either clearance from the FDA following the 510(k) pre-market notification process or pre-market approval from the FDA, in each case prior to marketing. Obtaining the requisite regulatory approvals can be expensive and may involve considerable delay. If we fail to obtain, or experience significant delays in obtaining, regulatory approvals for diagnostic products that we develop, we may not be able to launch or successfully commercialize such products in a timely manner, or at all.

In addition, if our products labeled as “For Research Use Only. Not for use in diagnostic procedures,” or RUO, are used, or could be used, for the diagnosis of disease, the regulatory requirements related to marketing, selling, and supporting such products could change or be uncertain, even if such use by our customers is without our consent. If the FDA or other regulatory authorities assert that any of our RUO products are subject to regulatory clearance or approval, our business, financial condition, or results of operations could be adversely affected.

If the FDA requires in the future that any of our LDT products be subject to regulatory clearance or approval, our business, financial condition, or results of operations could be adversely affected.

Certain of our diagnostic products are currently available through laboratories that are certified under the Clinical Laboratory Improvements Amendments (CLIA) of 1988. These products are commonly called “laboratory developed tests,” or LDTs. For a number of years, the FDA has exercised its regulatory enforcement discretion not to regulate LDTs as medical devices if created and used within a single laboratory. However, the FDA has been reconsidering its enforcement discretion policy and has commented that regulation of LDTs may be warranted because of the growth in the volume and complexity of testing services utilizing LDTs. We cannot predict the nature or extent of the FDA's final guidance or regulation of LDTs, in general, or with respect to our LDTs, in particular. If the FDA requires in the future that LDT products are subject to regulatory clearance or approval, our business, financial condition, or results of operations could be adversely affected.

Risks Relating to Information Technology Security and Continuity

Despite using commercially reasonable measures to secure our systems, networks, and products, security breaches, including with respect to cybersecurity, and other disruptions could compromise our information, products, and services, disrupt our or our customers' operations, and expose us to liability, which could cause our business and reputation to suffer.

In the ordinary course of our business, we collect sensitive data, including intellectual property, our proprietary business information (and that of our customers), and personally identifiable information of our customers and employees and store it in our data centers and on our networks. Our customers also collect sensitive data and information using our products. The secure maintenance of information is important to our operations and business strategy. Despite our information systems security measures and the security measures built into our products, our information technology infrastructure and our products may in the future be, and have in the past been, impacted by cyber-attacks, employee error, malfeasance, or other disruptions due to the inherent features of Internet and technical limitations.

We and users of our products may face cyber-attacks, including from nation state actors or advanced persistent threats who attempt to penetrate our or our customers' network security, including our data centers; sabotage or otherwise disable our research, products, and services, including instruments at our customers' sites; misappropriate our or our customers' and partners' proprietary information, which may include personally identifiable information; or cause interruptions of our or our customers' internal operations, systems and services, including through ransomware attacks. Any such breach could compromise our or our customers' networks and the information stored there could be accessed, publicly disclosed, lost, or exfiltrated. Any such access, disruption, disclosure, or other loss of information could result in an adverse impact on our or our customers' business, legal claims or proceedings, liability under laws that protect the privacy of personal information, and damage to our reputation.

Disruption of critical information technology systems could have an adverse effect on our operations, business, customer relations, and financial condition.

Our success depends, in part, on the continued and uninterrupted performance of our IT systems, which are used extensively in virtually all aspects of our business. IT systems may be vulnerable to damage from a variety of sources, including telecommunications or network failures, power loss, natural disasters, human acts, terrorist attacks, computer viruses, computer denial-of-service attacks, ransomware attacks, unauthorized access to customer or employee data or company trade secrets, and other attempts to harm our systems. Certain of our systems are not redundant, and our disaster recovery planning is not sufficient for every eventuality. Further, the emerging development of artificial intelligence could create unforeseen, more sophisticated attacks. Despite any precautions we may take, such problems could result in, among other consequences, disruption of our operations, which could harm our reputation and financial results.

As we continuously adjust our workflow and business practices and add additional functionality to our enterprise software, problems could arise that we have not foreseen, including interruptions in service, loss of data, inaccurate data, or reduced functionality. Such problems could adversely impact our ability to run our business in a timely manner.

General Risk Factors

Doing business internationally, especially in emerging markets, creates operational risk for our business.

Conducting and launching operations on an international scale requires close coordination of activities across multiple jurisdictions and consumes significant management resources. If we fail to coordinate and manage these activities effectively, including the risks noted below, our business, financial condition, or results of operations could be adversely affected. We have sales offices located internationally throughout Europe, the Asia-Pacific region, and Brazil, as well as manufacturing and research facilities in Singapore and the United Kingdom. Shipments to customers outside the United States comprised 48%, 50%, and 52% of our total revenue in 2023, 2022, and 2021, respectively.

We are subject to the following risks and challenges associated with conducting business globally, particularly in emerging international markets, where we expect a growing proportion of our business to be located:

- longer payment cycles and difficulties in collecting accounts receivable outside of the United States;
- longer sales cycles due to the volume of transactions taking place through public tenders;
- challenges in staffing and managing foreign operations;
- tariffs and other trade barriers;
- lack of consistency, and unexpected changes, in legislative or regulatory requirements of foreign countries into which we sell our products;
- increased risk of governmental and regulatory scrutiny and investigations;
- the burden of complying with a wide variety of foreign laws, regulations, and legal standards;
- operating in locations with a higher incidence of corruption and fraudulent business practices;
- import and export requirements, tariffs, taxes, and other trade barriers;
- weak or no protection of intellectual property rights;
- possible enactment of laws regarding the management of and access to data and public networks and websites;
- potential negative impact of a global health crisis, such as the outbreak of a serious infectious disease, to our commercial or manufacturing operations, including the loss of productivity from our own workforce and consequences of any restrictions on the movement of people or materials;
- possible future limitations on foreign-owned businesses;
- significant taxes; and
- general geopolitical risks beyond our control, including political, social and economic instability, changes in diplomatic and trade relations, and security concerns in general.

Additionally, we must comply with complex foreign and U.S. laws and regulations, such as the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and other local laws prohibiting corrupt payments to governmental officials, anti-competition regulations and sanctions imposed by the U.S. Office of Foreign Assets Control and other similar laws and regulations. Violations of these laws and regulations could result in fines and penalties, criminal sanctions, restrictions on our business conduct and on our ability to offer our products in one or more countries, and could also materially affect our brand, our ability to attract and retain employees, our international operations, our business and our operating results. Although we have implemented policies and procedures designed to ensure compliance with these laws and regulations, there can be no assurance that our employees, contractors, or agents will not violate our policies.

As we continue to expand our business into multiple international markets, our success will depend, in large part, on our ability to anticipate and effectively manage these and other risks associated with our international operations. Any of these risks could harm our international operations and negatively impact our sales, adversely affecting our business, results of operations, financial condition and growth prospects.

The armed conflict between Russia and Ukraine, the international sanctions imposed on Russia, and the restrictions imposed on exports to Russia will likely continue to negatively affect our business. Armed conflict in the Middle East or elsewhere could also negatively impact us.

As a result of the armed conflict between Russia and Ukraine, doing business in the Ukraine may not be practicable. In addition, the U.S. and other countries have imposed sanctions on Russia, including its major financial institutions and certain other businesses and individuals, as well as restrictions on exports to Russia. These sanctions and export restrictions have increased in magnitude over time. Russia has responded in kind, and the continuation of the conflict may result in additional sanctions and export restrictions being enacted by the U.S. or other countries. The impact of these sanctions and export restrictions, along with the spillover effect of ongoing civil, political and economic disturbances on surrounding areas, has affected our ability to ship products into the region, and has reduced our sales. Sanctions or export restrictions currently prohibit our ability to collect or pay liabilities owed by or to certain Russian entities or to supply products and services, directly or indirectly, into Russia. The impact of the Russia-Ukraine conflict, and armed conflict in the Middle East or elsewhere on general economic conditions is currently unknown and could in the future have a negative effect on our results of operations, cash flows, financial condition or growth prospects.

We are exposed to risks associated with transactions denominated in foreign currency.

During 2023, more than half of our international sales were denominated in foreign currencies while the majority of our purchases of raw materials were denominated in U.S. dollars. Changes in the value of the relevant currencies may affect the cost of certain items required in our operations. Changes in currency exchange rates may also affect the relative prices at which we are able to sell products in the same market. Our revenues from international customers may be negatively impacted as increases in the U.S. dollar relative to our international customers local currency could make our products more expensive, impacting our ability to compete. Our costs of materials from international suppliers may increase if, in order to continue doing business with us, they raise their prices as the value of the U.S. dollar decreases relative to their local currency. Foreign policies and actions regarding currency valuation could result in actions by the United States and other countries to offset the effects of such fluctuations. Recent global financial conditions have led to a high level of volatility in foreign currency exchange rates and that level of volatility may continue, which could adversely affect our business, financial condition, or results of operations.

We are subject to risks related to taxation in multiple jurisdictions.

We are subject to income taxes in both the United States and numerous foreign jurisdictions. Significant judgments based on interpretations of existing tax laws or regulations are required in determining the provision for income taxes. Our effective income tax rate could be adversely affected by various factors, including, but not limited to, changes in the mix of earnings in tax jurisdictions with different statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in existing tax policies, laws, regulations, or rates (including the implementation of global minimum tax rates in certain jurisdictions), changes in the level of non-deductible expenses (including share-based compensation), location of operations, changes in our future levels of research and development spending, mergers and acquisitions, or the result of examinations by various tax authorities. Although we believe our tax estimates are reasonable, if the U.S. Internal Revenue Service or other taxing authority disagrees with the positions taken on our tax returns, we could have additional tax liability, including interest and penalties. If material, payment of such additional amounts upon final adjudication of any disputes could have a material impact on our results of operations and financial position.

Our operating results may vary significantly from period to period.

Our revenue is subject to fluctuations due to the timing of sales of high-value products and services, the effects of new product launches and related promotions, the timing and availability of our customers' funding, the impact of seasonal spending patterns, the timing and size of research projects our customers perform, changes in overall spending levels in the life sciences industry, and other unpredictable factors that may affect customer ordering patterns. In particular, collaboration agreements and large-scale government funded projects such as population genomic projects are the result of lengthy and complex negotiations, and the timing of revenue recognition in connection with these agreements and projects may be subject to significant uncertainty because of the long-term nature of development and collaboration projects, as well as sample availability for population genomics projects.

Given the difficulty in predicting the timing and magnitude of sales for our products and services, we may experience quarter-to-quarter fluctuations in revenue resulting in the potential for a sequential decline in quarterly revenue. As a substantial portion of our quarterly revenue is typically recognized in the last month of the quarter with a concentration of orders in the final weeks, our manufacturing and shipping operations may experience increased pressure and demand during the time period shortly before the end of a fiscal quarter; delays related to our manufacturing and shipping operations during this time period could delay the recognition of revenue.

From time to time, we receive large orders that have a significant effect on our operating results in the period in which the order is recognized as revenue. The timing of such orders is difficult to predict, and the timing of revenue recognition from such orders may affect period-to-period changes in net sales. As a result, our operating results could vary materially from quarter-to-quarter based on the receipt of such orders and their ultimate recognition as revenue.

Adverse economic or market conditions may harm our business.

Worsening economic conditions, including inflation, increasing interest rates, decreasing economic activity, volatility in equity and credit markets or other changes in the economic environment, may adversely affect our business, financial condition, or results of operations. For example, we depend on third-party manufacturers and suppliers for some of our products, or sub-assemblies, components, and materials used in our products, and the suppliers of these inputs may seek to raise prices in the current inflationary economic environment. If our costs increase and we are unable to successfully pass along those increased costs to our customers, our revenue and or operating profitability may be adversely affected. In addition, we have a variable-interest-rate credit facility (see note "[5. Debt and Other Commitments](#)"), under which we have no currently outstanding debt, and we may in the future raise additional debt or refinance existing debt. Our cost of borrowing in the future may be higher than it has been to date because interest rates have risen and may continue to increase. An increased cost of borrowing may adversely affect our financial condition and results of operations.

LEGAL PROCEEDINGS

See discussion of legal proceedings in note "[8. Legal Proceedings](#)" within the Consolidated Financial Statements section of this report, which is incorporated by reference herein.

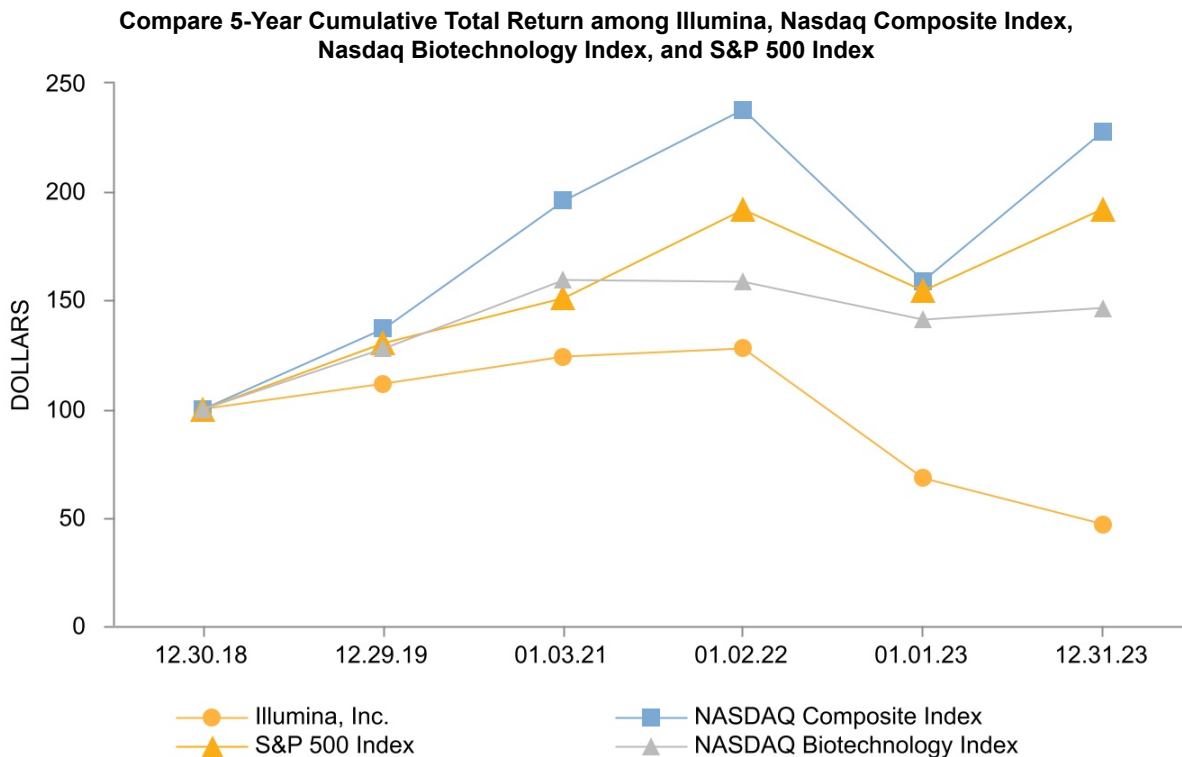
MARKET INFORMATION

Our common stock has been quoted on The Nasdaq Global Select Market under the symbol "ILMN" since July 28, 2000. The following table sets forth, for the fiscal periods indicated, the quarterly high and low sales prices per share of our common stock as reported on The Nasdaq Global Select Market.

	2023		2022	
	High	Low	High	Low
First Quarter	\$ 238.55	\$ 182.00	\$ 428.00	\$ 302.79
Second Quarter	\$ 233.42	\$ 181.62	\$ 371.16	\$ 180.00
Third Quarter	\$ 195.64	\$ 127.37	\$ 236.29	\$ 173.45
Fourth Quarter	\$ 143.93	\$ 89.00	\$ 248.87	\$ 179.75

Stock Performance Graph

The graph below compares the cumulative total stockholder returns on our common stock for the last five fiscal years with the cumulative total stockholder returns on the Nasdaq Composite Index, the Nasdaq Biotechnology Index, and the S&P 500 Index for the same period. The graph assumes that \$100 was invested on December 30, 2018 in our common stock and in each index and that all dividends were reinvested. No cash dividends have been declared on our common stock. Stockholder returns over the indicated period should not be considered indicative of future stockholder returns.



Holdings

As of February 9, 2024, we had 575 record holders of our common stock.

Dividends

We have never paid cash dividends and have no present intention to pay cash dividends in the foreseeable future.

SHARE REPURCHASES AND SALES

Purchases of Equity Securities by the Issuer

There were no purchases of equity securities in 2023.

Sales of Unregistered Securities

There were no sales of unregistered securities in 2023.

MANAGEMENT'S DISCUSSION & ANALYSIS

Our Management's Discussion and Analysis (MD&A) will help readers understand our results of operations, financial condition, and cash flow. It is provided in addition to the accompanying consolidated financial statements and notes. This MD&A is organized as follows:

- *Management's Overview and Outlook.* High level discussion of our operating results and significant known trends that affect our business.
- *Results of Operations.* Detailed discussion of our revenues and expenses.
- *Liquidity and Capital Resources.* Discussion of key aspects of our consolidated statements of cash flows, changes in our financial position, and our financial commitments.
- *Critical Accounting Policies and Estimates.* Discussion of critical accounting policies and the significant assumptions, estimates, and judgments we make in applying such policies.
- *Quantitative and Qualitative Disclosure about Market Risk.* Discussion of our financial instruments' exposure to market risk.
- *Recent Accounting Pronouncements.* Summary of recent accounting pronouncements applicable to our consolidated financial statements.

This MD&A generally discusses 2023 and 2022 items and year-to-year comparisons between 2023 and 2022. Discussions of 2021 items and year-to-year comparisons between 2022 and 2021 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on [Form 10-K](#) for the fiscal year ended 2022.

This MD&A discussion contains forward-looking statements that involve risks and uncertainties. See "[Consideration Regarding Forward-Looking Statements](#)" preceding the Business & Market Overview section of this report for additional factors relating to such statements. See "[Risk Factors](#)" within the Business & Market Information section of this report for a discussion of certain risk factors applicable to our business, financial condition, and results of operations. Operating results are not necessarily indicative of results that may occur in future periods.

MANAGEMENT'S OVERVIEW AND OUTLOOK

This overview and outlook provide a high-level discussion of our operating results and significant known trends that affect our business. We believe that an understanding of these trends is important to understanding our financial results for the periods being reported herein as well as our future financial performance. This summary is not intended to be exhaustive, nor is it intended to be a substitute for the detailed discussion and analysis provided elsewhere in this report.

About Illumina

Our focus on innovation has established us as a global leader in DNA sequencing and array-based technologies, serving customers in the research, clinical and applied markets. Our products are used for applications in the life sciences, oncology, reproductive health, agriculture and other emerging segments. Our customers include leading genomic research centers, academic institutions, government laboratories, and hospitals, as well as pharmaceutical, biotechnology, commercial molecular diagnostic laboratories, and consumer genomics companies. Our comprehensive line of products addresses the scale of experimentation and breadth of functional analysis to advance disease research, drug development, and the development of molecular tests. This portfolio of leading-edge sequencing and array-based solutions addresses a range of genomic complexity and throughput, enabling researchers and clinical practitioners to select the best solution for their scientific challenge.

On August 18, 2021, we acquired GRAIL, a healthcare company focused on early detection of multiple cancers. GRAIL's Galleri blood test detects various types of cancers before they are symptomatic. The acquisition is subject to ongoing legal proceedings, and, currently, GRAIL must be held and operated separately and independently from Illumina pursuant to the transitional measures ordered by the European Commission in the EC Divestment Decision, following the prohibition of our acquisition of GRAIL on September 6, 2022. See note "8. Legal Proceedings" for further details. On December 17, 2023, we announced that we will divest GRAIL. The divestiture of GRAIL is expected to be executed through a third-party sale or capital markets transaction in accordance with the EC Divestment Decision, with the goal of finalizing the terms of the divestiture by the end of the second quarter of 2024. There can be no assurance regarding the ultimate timing of the divestiture of GRAIL.

We have two reportable segments, Core Illumina and GRAIL. Core Illumina relates to our core operations, excluding the results of GRAIL. See note "11. Segments and Geographic Data" for additional details.

Our financial results have been, and will continue to be, impacted by several significant trends, which are described below. While these trends are important to understanding and evaluating our financial results, this discussion should be read in conjunction with our consolidated financial statements and the notes thereto within the Consolidated Financial Statements section of this report, and the other transactions, events, and trends discussed in "Risk Factors" within the Business & Market Information section of this report.

Financial Overview

During fiscal year 2023, macroeconomic factors such as inflation, exchange rate fluctuations and concerns about an economic downturn, competitive challenges in our China region, and the sanctions imposed on Russia as a result of the armed conflict between Russia and Ukraine have impacted both Illumina directly and our customers' behavior. For example, some customers experienced supply chain pressures that delayed their lab expansions and others are managing inventory and capital more conservatively. We expect these factors to continue to impact our sales and results of operations in 2024, the size and duration of which is significantly uncertain.

Financial highlights for 2023 included the following:

- Revenue decreased 2% in 2023 to \$4.5 billion compared to \$4.6 billion in 2022 primarily due to decreases in sequencing consumables revenue and sequencing instruments revenue, partially offset by an increase in service and other revenue. We expect revenue for Core Illumina to remain flat in 2024.
- Gross profit as a percentage of revenue (gross margin) was 60.9% in 2023 compared to 64.8% in 2022. The decrease in gross margin was driven primarily by less fixed cost leverage on lower manufacturing volumes and lower instrument margins due to the NovaSeq X launch in 2023. Our gross margin depends on many factors, including: market conditions that may impact our pricing; sales mix changes among consumables, instruments, services, and development and licensing revenue; product mix changes between established products and new products; excess and obsolete inventories; royalties; our cost structure for manufacturing operations relative to volume; freight costs; and product support obligations.
- Loss from operations was \$(1.1) billion in 2023 compared to \$(4.2) billion in 2022. The decrease was primarily due to a decrease in operating expenses of \$3.3 billion, which included significant decreases in goodwill and intangible impairment of \$3.1 billion and legal contingency and settlement of \$599 million, partially offset by a \$228 million decrease in gross profit. We continue to focus on our cost reduction initiatives to accelerate progress toward higher margins and create flexibility for further investment in high-growth areas. We expect Core Illumina operating expenses to slightly increase in 2024.
- Our effective tax rate was (3.9)% and (1.6)% in 2023 and 2022, respectively. In 2023, the variance from the U.S. federal statutory tax rate of 21% was primarily because of the income tax expense impacts of the impairment of goodwill, which is nondeductible for tax purposes, the income tax expense impact of capitalizing research and development expense for tax purposes, and the income tax expense impact of GRAIL pre-acquisition net operating losses on GILTI and the utilization of U.S. foreign tax credits. This was partially offset by the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore.

Our future effective tax rate may vary from the U.S. federal statutory tax rate due to the mix of earnings in tax jurisdictions with different statutory tax rates and the other factors discussed in the risk factor “We are subject to risks related to taxation in multiple jurisdictions” in “Risk Factors” within the Business & Market Information section of this report, including future tax legislation that changes existing tax policies, laws, regulations, or rates.

- We ended 2023 with cash, cash equivalents, and short-term investments totaling \$1.1 billion, of which approximately \$386 million was held by our foreign subsidiaries.

RESULTS OF OPERATIONS

To enhance comparability, the following table sets forth audited consolidated statement of operations data for 2023, 2022, and 2021, stated as a percentage of total revenue.⁽¹⁾

	2023	2022	2021
Revenue:			
Product revenue	84.1 %	86.2 %	87.7 %
Service and other revenue	15.9	13.8	12.3
Total revenue	100.0	100.0	100.0
Cost of revenue:			
Cost of product revenue	26.1	25.0	23.4
Cost of service and other revenue	8.7	6.4	5.3
Amortization of acquired intangible assets	4.3	3.8	1.6
Total cost of revenue	39.1	35.2	30.3
Gross profit	60.9	64.8	69.7
Operating expense:			
Research and development	30.1	28.8	26.2
Selling, general and administrative	35.8	28.3	46.2
Goodwill and intangible impairment	18.3	85.4	—
Legal contingency and settlement	0.4	13.5	—
Total operating expense	84.6	156.0	72.4
Loss from operations	(23.7)	(91.2)	(2.7)
Other income (expense):			
Interest income	1.3	0.2	—
Interest expense	(1.7)	(0.6)	(1.3)
Other (expense) income, net	(0.7)	(3.0)	23.5
Total other (expense) income, net	(1.1)	(3.4)	22.2
(Loss) income before income taxes	(24.8)	(94.6)	19.5
Provision for income taxes	1.0	1.5	2.7
Net (loss) income	(25.8)%	(96.1)%	16.8 %

⁽¹⁾ Percentages may not recalculate due to rounding.

Revenue

<i>Dollars in millions</i>	2023-2022			
	2023	2022	Change	% Change
Core Illumina:				
Consumables	\$ 3,106	\$ 3,246	\$ (140)	(4)%
Instruments	706	729	(23)	(3)
Total product revenue	3,812	3,975	(163)	(4)
Service and other revenue	626	578	48	8
Total Core Illumina revenue	4,438	4,553	(115)	(3)
GRAIL:				
Service and other revenue	93	55	38	69
Eliminations	(27)	(24)	(3)	13
Total consolidated revenue	\$ 4,504	\$ 4,584	\$ (80)	(2)%

The decrease in Core Illumina consumables revenue in 2023 was primarily due to a decrease in sequencing consumables revenue of \$127 million, driven primarily by lower NovaSeq 6000 consumables pull-through as some of our high throughput customers transition to NovaSeq X, as well as the impact of macroeconomic conditions on customer purchasing power and project planning. Core Illumina instruments revenue decreased in 2023, primarily due to a decrease in sequencing instruments revenue of \$23 million, which was driven by fewer shipments of our NovaSeq 6000, NextSeq and MiSeq instruments, partially offset by shipments of NovaSeq X that launched in the beginning of 2023. Core Illumina service and other revenue increased in 2023 primarily due to increased revenue from extended maintenance service contracts on a growing installed base. Additionally, Core Illumina revenue was adversely impacted by \$7 million in 2023 due to foreign exchange rate fluctuations, which included \$18 million reclassified to revenue in 2023 related to our cash flow hedges.

GRAIL service and other revenue increased \$38 million, or 69%, in 2023 primarily due to sales of Galleri.

Gross Margin

<i>Dollars in millions</i>	2023-2022			
	2023	2022	Change	% Change
Gross profit (loss):				
Core Illumina	\$ 2,856	\$ 3,107	\$ (251)	(8)%
GRAIL	(96)	(117)	21	(18)
Eliminations	(16)	(18)	2	(11)
Consolidated gross profit	\$ 2,744	\$ 2,972	\$ (228)	(8)%
Gross margin:				
Core Illumina	64.4 %	68.2 %		
GRAIL	*	*		
Consolidated gross margin	60.9 %	64.8 %		

* Not meaningful.

The decrease in Core Illumina gross margin in 2023 was driven primarily by less fixed cost leverage on lower manufacturing volumes, lower instrument margins due to the NovaSeq X launch, which is typical with a new platform introduction until we scale manufacturing and gain operating efficiencies, and increased field services and installation costs, partially offset by lower freight costs.

GRAIL gross loss in 2023 and 2022 was primarily due to amortization of intangible assets of \$134 million.

Operating Expense

<i>Dollars in millions</i>	2023-2022			
	2023	2022	Change	% Change
Research and development:				
Core Illumina	\$ 1,030	\$ 1,004	\$ 26	3 %
GRAIL	338	330	8	2
Eliminations	(14)	(13)	(1)	8
Consolidated research and development	<u>1,354</u>	<u>1,321</u>	<u>33</u>	<u>2</u>
Selling, general and administrative:				
Core Illumina	1,248	1,003	245	24
GRAIL	366	296	70	24
Eliminations	(2)	(2)	—	—
Consolidated selling, general and administrative	<u>1,612</u>	<u>1,297</u>	<u>315</u>	<u>24</u>
Goodwill and intangible impairment:				
Core Illumina	6	—	6	100
GRAIL	821	3,914	(3,093)	(79)
Consolidated goodwill and intangible impairment	<u>827</u>	<u>3,914</u>	<u>(3,087)</u>	<u>(79)</u>
Legal contingency and settlement:				
Core Illumina	20	619	(599)	(97)
Total consolidated operating expense	<u>\$ 3,813</u>	<u>\$ 7,151</u>	<u>\$ (3,338)</u>	<u>(47)%</u>

Core Illumina R&D expense increased by \$26 million, or 3%, in 2023 primarily due to an increase in compensation related expenses, including performance-based compensation, as we continue to invest in the research and development of new products and enhancements to existing products, and an increase in restructuring charges of \$18 million as compared to 2022, which consisted primarily of employee separation costs. The increase in 2023 was partially offset by decreases in expenses related to lab supplies, recruiting, professional services, and travel.

GRAIL R&D expense increased by \$8 million, or 2%, in 2023 primarily due to an increase in headcount and employee related compensation costs, as well as an increase in lab and consumables spend, partially offset by a decrease in clinical trial costs.

Core Illumina SG&A expense increased by \$245 million, or 24%, in 2023 primarily due to a lower gain recognized on our contingent consideration liability of \$181 million in 2023 compared to 2022 (recognized a net gain of \$24 million and \$205 million in 2023 and 2022, respectively, primarily related to the GRAIL CVRs), an increase in restructuring charges of \$94 million as compared to 2022, which consisted primarily of lease and other asset impairments and employee separation costs, and costs related to the proxy contest of \$32 million. This increase was partially offset by decreases in professional services, facility related costs, as we exited certain of our facilities, and recruiting costs.

GRAIL SG&A expense increased by \$70 million, or 24%, in 2023 primarily due to an increase in headcount and employee related compensation costs, as well as increases in professional services and marketing related spend.

Core Illumina impairment for 2023 consisted of an IPR&D intangible asset impairment. GRAIL impairment for 2023 consisted of goodwill impairment of \$712 million and an IPR&D intangible asset impairment of \$109 million as a result of an interim impairment test performed in Q3 2023. GRAIL impairment for 2022 consisted of goodwill impairment of \$3,914 million. See note [“4. Acquisitions, Goodwill, and Intangible Assets”](#) for additional details.

Core Illumina legal contingency and settlement for 2023 consisted of an adjustment to our accrual for the fine imposed by the European Commission in July 2023 and accrued interest on the fine of \$5 million, as well as a gain and a loss on two separate patent litigation settlements. Core Illumina legal contingency and settlement for 2022 primarily consisted of an accrual for the fine imposed by the European Commission and a net loss of \$145 million related to the settlement of our litigation with BGI. See note [“8. Legal Proceedings”](#) for additional details.

Other Income (Expense)

<i>Dollars in millions</i>	2023-2022			
	2023	2022	Change	% Change
Interest income	\$ 58	\$ 11	\$ 47	427 %
Interest expense	(77)	(26)	(51)	196
Other expense, net	(29)	(142)	113	(80)
Total other expense, net	<u>\$ (48)</u>	<u>\$ (157)</u>	<u>\$ 109</u>	<u>(69)%</u>

Total other expense, net primarily relates to Core Illumina for both periods presented.

Interest income consisted primarily of interest on our money market funds, which benefited from higher yields in 2023 due to rising interest rates. Interest expense consisted primarily of interest on our Term Notes and increased in 2023 due to the issuance of our 2025 and 2027 Term Notes in December 2022. The decrease in other expense, net was primarily due to a decrease in net losses recognized on our strategic investments of \$82 million (net loss on our strategic investments of \$40 million in 2023 compared to a net loss of \$122 million in 2022), a favorable impact related to our Helix contingent value right (unrealized gain of \$10 million in 2023 compared to an unrealized loss of \$7 million in 2022), and a favorable impact related to our deferred compensation plan assets, partially offset by a net unrealized foreign currency loss related to the fine imposed by the European Commission.

Provision for Income Taxes

<i>Dollars in millions</i>	2023-2022			
	2023	2022	Change	% Change
Loss before income taxes	\$ (1,117)	\$ (4,336)	\$ 3,219	(74)%
Provision for income taxes	44	68	(24)	(35)
Net loss	<u>\$ (1,161)</u>	<u>\$ (4,404)</u>	<u>\$ 3,243</u>	<u>(74)%</u>
Effective tax rate	(3.9)%	(1.6)%		

In 2023, the variance from the U.S. federal statutory tax rate of 21% was primarily because of the \$149 million income tax expense impact from the impairment of goodwill, which is nondeductible for tax purposes, the \$86 million income tax expense impact of capitalizing research and development expense for tax purposes, and the \$61 million income tax expense impact of GRAIL pre-acquisition net operating losses on GILTI and the utilization of the U.S. foreign tax credits. The income tax expense in 2023 was also favorably impacted by the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore.

In 2022, the variance from the U.S. federal statutory tax rate of 21% was primarily because of the \$822 million income tax expense impact from the impairment of goodwill and the \$96 million income tax expense impact from the European Commission fine related to the GRAIL acquisition, both of which are nondeductible for tax purposes, the \$87 million income tax expense impact of capitalizing research and development expense for tax purposes beginning in 2022, in accordance with the 2017 Tax Cuts and Jobs Act, and the \$60 million income tax expense impact of GRAIL pre-acquisition net operating losses on GILTI and the utilization of the U.S. foreign tax credits. The income tax expense in 2022 was also favorably impacted by the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom.

LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2023, we had approximately \$1,048 million in cash and cash equivalents, of which approximately \$386 million was held by our foreign subsidiaries. Cash and cash equivalents decreased by \$963 million from the prior year due primarily to the repayment of our 2023 Term Notes in Q1 2023 of \$500 million, the repayment of our 2023 Convertible Notes in Q3 2023 of \$750 million, and other factors described in the “Cash Flow Summary” below. Our primary source of liquidity, other than our holdings of cash, cash equivalents, and investments, has been cash flows from operations and, from time to time, issuances of debt. Our ability to generate cash from operations provides us with the financial flexibility we need to meet operating, investing, and financing needs. Historically, we have liquidated our short-term investments and/or issued debt to finance our business needs as a supplement to cash provided by operating activities. As of December 31, 2023, we had \$6 million remaining in short-term investments comprised of marketable equity securities.

On July 12, 2023, as a result of our decision to proceed with the completion of our acquisition of GRAIL during the pendency of the European Commission’s review, the European Commission imposed a €432 million fine on us, representing the maximum fine of 10% of our consolidated annual revenues for fiscal year 2022. As of December 31, 2023, we accrued \$484 million, including related foreign currency losses and accrued interest, included in accrued liabilities. We provided guarantees in October 2023 to satisfy the obligation in lieu of cash payment while we appeal the European Commission’s jurisdictional decision and fine decision. The fine is accruing interest at a rate of 5.5% per annum, beginning in October 2023, while it is outstanding. Refer to note [“8. Legal Proceedings”](#) for additional details.

In March 2021, we issued term notes due 2023 with an aggregate principal amount of \$500 million and term notes due 2031 with an aggregate principal amount of \$500 million. The 2023 Term Notes matured and were repaid in cash on March 23, 2023. The 2031 Term Notes, which mature on March 23, 2031, accrue interest at a rate of 2.550% per annum, payable semi-annually in March and September of each year. We may redeem for cash all or any portion of the 2031 Term Notes, at our option, at any time prior to maturity.

Our convertible senior notes, with an aggregate principal amount of \$750 million, matured on August 15, 2023, at which time the principal was repaid in cash. We did not issue any shares of common stock.

In December 2022, we issued term notes due 2025 with an aggregate principal amount of \$500 million and term notes due 2027 with an aggregate principal amount of \$500 million. The 2025 Term Notes and the 2027 Term Notes accrue interest at a rate of 5.800% and 5.750% per annum, respectively, payable semi-annually in June and December of each year. The 2025 Term Notes mature on December 12, 2025 and the 2027 Term Notes mature on December 13, 2027. We may redeem for cash all or any portion of the Term Notes, at our option, at any time prior to maturity.

On January 4, 2023, we obtained a new Credit Facility, which provides us with a \$750 million senior unsecured five-year revolving credit facility, including a \$40 million sublimit for swingline borrowings and a \$50 million sublimit for letters of credit. The Credit Facility matures, and all amounts outstanding thereunder become due and payable in full, on January 4, 2028, subject to two one-year extensions at our option, the consent of the extending lenders, and certain other conditions. As of December 31, 2023, there were no borrowings outstanding under the Credit Facility; however, we may draw upon the facility in the future to manage cash flow or for other corporate purposes, including in connection with the payment of the €432 million European Commission fine. We provided guarantees in October 2023 to satisfy the obligation in lieu of cash payment while we appeal the European Commission’s jurisdictional decision and fine decision.

As of December 31, 2023, the fair value of our contingent consideration liability related to our acquisition of GRAIL was \$387 million, of which \$385 million was included in other long-term liabilities. The contingent value rights issued as part of the acquisition entitle the holders to receive future cash payments on a quarterly basis (Covered Revenue Payments) representing a pro rata portion of certain GRAIL-related revenues (Covered Revenues) each year for a 12-year period. This will reflect a 2.5% payment right to the first \$1 billion of revenue each year for 12 years. Revenue above \$1 billion each year will be subject to a 9% contingent payment right during this same period. We expect Covered Revenues for Q4 2023 to be approximately \$30 million and for related Covered Revenue Payments to total approximately \$284,000 in Q1 2024. In 2023, we paid \$803,000 in aggregate Covered Revenue Payments related to Covered Revenues for the periods Q4 2022 through Q3 2023 of \$85 million in aggregate.

We grant cash incentive equity awards to GRAIL employees that generally have terms of four years and vest in equal annual installments. As of December 31, 2023, the aggregate cash value of awards outstanding and unvested was \$292 million, and we accrued an estimated liability of \$55 million, included in accrued liabilities. In addition, we have an outstanding performance-based award for which vesting is based on GRAIL’s future revenues. The award has an

aggregate potential value of up to \$78 million, which is expected to be settled in cash, and expires, to the extent unvested, in August 2030. As of December 31, 2023, it was not probable that the performance conditions associated with the award will be achieved.

We had \$4 million and up to \$71 million, respectively, remaining in our capital commitments to two venture capital investment funds as of December 31, 2023, that are callable through April 2026 and July 2029, respectively.

The impact of the 2017 Tax Cuts and Jobs Act resulted in a one-time transition tax on earnings of certain foreign subsidiaries which we elected to pay in installments. As of December 31, 2023, we owed \$71 million, which we expect to pay over the next two years.

Authorizations to repurchase \$15 million of our common stock remained available as of December 31, 2023 under the \$750 million share repurchase program authorized by our Board of Directors on February 5, 2020. The repurchases may be completed under a 10b5-1 plan or at management's discretion. We do not intend to make any share repurchases during fiscal year 2024.

Our other short-term and long-term material cash requirements, from known contractual obligations as of December 31, 2023, include operating lease liabilities, uncertain tax positions, and amounts due under our executive deferred compensation plan, as discussed in the Consolidated Financial Statements section of this report.

We anticipate that our current cash, cash equivalents, and short-term investments, together with cash provided by operating activities and available borrowing capacity under the Credit Facility, are sufficient to fund our near-term capital and operating needs for at least the next 12 months. Operating needs include the planned costs to operate our business, including amounts required to fund working capital and capital expenditures. Our primary short-term needs for capital, which are subject to change, include:

- support of commercialization efforts related to our current and future products;
- acquisitions of equipment and other fixed assets for use in our current and future manufacturing and research and development facilities;
- the continued advancement of research and development efforts;
- the payment of the European Commission fine related to our acquisition of GRAIL;
- the requirement to ensure that GRAIL has access to sufficient funds, at the time of a divestment, to cover at least 2.5 years of operations according to its latest long-range plan per the EC Divestment Decision;
- potential strategic acquisitions and investments;
- repayment of debt obligations; and
- the expansion needs of our facilities, including costs of leasing and building out additional facilities.

We expect that our revenue and the resulting operating income, as well as the status of each of our new product development programs, will significantly impact our cash management decisions.

Our future capital requirements and the adequacy of our available funds will depend on many factors, including:

- our ability to successfully commercialize and further develop our technologies and create innovative products in our markets;
- scientific progress in our research and development programs and the magnitude of those programs;
- competing technological and market developments; and
- the need to enter into collaborations with other companies or acquire other companies or technologies to enhance or complement our product and service offerings.

Cash Flow Summary

In millions

	2023	2022	2021
Net cash provided by operating activities	\$ 478	\$ 392	\$ 545
Net cash used in investing activities	(231)	(591)	(1,069)
Net cash (used in) provided by financing activities	(1,210)	1,000	(51)
Effect of exchange rate changes on cash and cash equivalents	—	(22)	(3)
Net (decrease) increase in cash and cash equivalents	\$ (963)	\$ 779	\$ (578)

Operating Activities

Net cash provided by operating activities in 2023 primarily consisted of net adjustments of \$1,729 million, less net loss of \$1,161 million, and less net changes in operating assets and liabilities of \$90 million. The primary non-cash adjustments to net loss included goodwill and IPR&D impairments of \$827 million, depreciation and amortization expenses of \$432 million, share-based compensation of \$380 million, property and equipment and right-of-use asset impairment of \$100 million, net losses on strategic investments of \$40 million, and an unrealized loss on foreign exchange translation of \$22 million, partially offset by deferred income taxes of \$33 million and a gain recorded on our contingent consideration liabilities of \$24 million. Cash flow impact from changes in net operating assets and liabilities were primarily driven by increases in accounts receivable and inventory, and a decrease in accounts payable.

Net cash provided by operating activities in 2022 primarily consisted of net adjustments of \$4,592 million and net changes in operating assets and liabilities of \$204 million, less net loss of \$4,404 million. The primary non-cash adjustments to net loss included goodwill impairment of \$3,914 million, depreciation and amortization expenses of \$394 million, share-based compensation of \$366 million, and net losses on strategic investments of \$122 million, partially offset by a gain recorded on our contingent consideration liabilities of \$205 million and deferred income taxes of \$23 million. Cash flow impact from changes in net operating assets and liabilities were primarily driven by an increase in accrued liabilities, partially offset by an increase in inventory and a decrease in accounts payable.

Investing Activities

Net cash used in investing activities totaled \$231 million in 2023. We invested \$195 million in capital expenditures, primarily associated with our investment in facilities, paid \$29 million, net of cash acquired, for an acquisition, and used \$6 million for net purchases of strategic investments.

Net cash used in investing activities totaled \$591 million in 2022. We invested \$286 million in capital expenditures, primarily associated with our investment in facilities, paid \$180 million for an intangible asset related to our settlement with BGI, \$85 million, net of cash acquired, for an acquisition, and \$40 million for purchases of strategic investments.

Financing Activities

Net cash used in financing activities totaled \$1,210 million in 2023. We repaid our 2023 Term Notes, with an aggregate principal amount of \$500 million, in Q1 2023, repaid our 2023 Convertible Notes, with an aggregate principal amount of \$750 million, in Q3 2023, and used \$40 million to pay taxes related to net share settlement of equity awards, partially offset by \$67 million received in proceeds from the sale of shares under our employee stock purchase plan and the issuance of common stock through the exercise of stock options.

Net cash provided by financing activities totaled \$1,000 million in 2022. We received \$991 million in net proceeds from the issuance of debt and \$63 million in proceeds from the sale of shares under our employee stock purchase plan and the issuance of common stock through the exercise of stock options, partially offset by \$54 million used to pay taxes related to net share settlement of equity awards.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. Management bases its estimates on historical experience, market and other conditions, and various other assumptions it believes to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact us in the future, the estimation process is, by its nature, uncertain given that estimates depend on events over which we may not have control.

Though macroeconomic factors such as inflation, exchange rate fluctuations and concerns about an economic downturn present additional uncertainty, we continue to use the best information available to inform our critical accounting estimates. If market and other conditions change from those that we anticipate, our consolidated financial statements may be materially affected. In addition, if our assumptions change, we may need to revise our estimates, or take other corrective actions, either of which may also have a material effect on our consolidated financial statements.

We believe that the following critical accounting policies and estimates have a higher degree of inherent uncertainty and require our most significant judgments. In addition, had we used estimates different from any of these, our consolidated financial statements could have been materially different from those presented. Members of our senior management have discussed the development and selection of our critical accounting policies and estimates, and our disclosure regarding them, with the audit committee of our board of directors. Our accounting policies are more fully described in note [“1. Organization and Significant Accounting Policies”](#) in the Consolidated Financial Statements section of this report.

Revenue Recognition

Our revenue is generated primarily from the sale of products and services. Product revenue primarily consists of sales of instruments and consumables used in genetic analysis. Service and other revenue primarily consists of revenue generated from genotyping and sequencing services, instrument service contracts, development and licensing agreements, and cancer detection testing services related to the GRAIL business.

We recognize revenue when control of our products and services is transferred to our customers in an amount that reflects the consideration we expect to receive from our customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when the performance obligations have been satisfied. Revenue recognition for contracts with multiple deliverables is based on the separate satisfaction of each distinct performance obligation within the contract. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. We consider a performance obligation satisfied once we have transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. The contract price is allocated to each performance obligation in proportion to its standalone selling price. We determine our best estimate of standalone selling price using average selling prices over a rolling 12-month period coupled with an assessment of current market conditions. If the product or service has no history of sales or if the sales volume is not sufficient, we rely upon prices set by management, adjusted for applicable discounts.

Revenue from product sales is recognized generally upon delivery to the end customer, which is when control of the product is deemed to be transferred. Invoicing typically occurs upon shipment and payment is typically due within 30 days from invoice. In instances where right of payment or transfer of title is contingent upon the customer's acceptance of the product, revenue is deferred until all acceptance criteria have been met. Revenue from genotyping and sequencing services, including cancer detection testing services related to the GRAIL business, is recognized when earned, which is generally at the time the genotyping or sequencing analysis data is made available to the customer. Revenue from instrument service contracts is recognized as the services are rendered, typically evenly over the contract term. Revenue from development and licensing agreements generally includes upfront and periodic licensing fees, contract research and development services, or payments for development and regulatory milestones. Revenue for these agreements is recognized when each distinct performance obligation is satisfied.

Revenue is recorded net of discounts, distributor commissions, and sales taxes collected on behalf of governmental authorities. Employee sales commissions are recorded as selling, general and administrative expense when incurred as the amortization period for such costs, if capitalized, would have been one year or less.

In certain markets, products and services are sold to customers through distributors. In most sales through distributors, the product is delivered directly to customers by us. The terms of sales transactions through distributors are consistent with the terms of direct sales to customers.

Inventory Valuation

Inventory is stated at the lower of cost or net realizable value. We regularly review inventory for excess and obsolete products and components, taking into account product life cycles, quality issues, historical experience, and usage forecasts. We record write-downs of inventory for potentially excess, obsolete, or impaired goods in order to state inventory at net realizable value. We make assumptions about future demand, market conditions, and the release of new products that may supersede old ones. However, if actual market conditions are less favorable than anticipated, additional inventory write-downs could be required.

Contingencies

We are involved in various lawsuits and claims arising in the ordinary course of business, including actions with respect to intellectual property, employment, and contractual matters. In connection with these matters, we assess, on a regular basis, the probability and range of possible loss based on the developments in these matters. A liability is recorded in the consolidated financial statements if it is believed to be probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Because litigation is inherently unpredictable and unfavorable resolutions could occur, assessing contingencies is highly subjective and requires judgments about future events. We regularly review outstanding legal matters to determine the adequacy of the liabilities accrued and related disclosures in consideration of many factors, which include, but are not limited to, past history, scientific and other evidence, and the specifics and status of each matter. We may change our estimates if our assessment of the various factors changes and the amount of ultimate loss may differ from our estimates, resulting in a material effect on our business, financial condition, results of operations, and/or cash flows.

Business Combinations

Under the acquisition method of accounting, we allocate the fair value of the total consideration transferred to the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values on the date of acquisition. The fair values assigned, defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between willing market participants, are based on estimates and assumptions determined by management. These valuations require us to make estimates and assumptions, especially with respect to intangible assets. We record the excess consideration over the aggregate fair value of tangible and intangible assets, net of liabilities assumed, as goodwill. Costs that we incur to complete the business combination, such as legal and other professional fees, are expensed as they are incurred.

In connection with certain acquisitions, contingent consideration can be earned by the sellers upon completion of certain future performance milestones. In these cases, a liability is recorded on the acquisition date, as a component of accrued liabilities and/or other long-term liabilities, for an estimate of the acquisition-date fair value of the contingent consideration. We generally use a Monte Carlo simulation or an income approach to estimate the fair value of contingent consideration. Estimates and assumptions used in a Monte Carlo simulation include forecasted revenues, a revenue risk premium, a revenue volatility estimate, an operational leverage ratio and a counterparty credit spread. An income approach utilizes inputs such as anticipated future cash flows, risk-free adjusted discount rates, and nonperformance risk, as well as management judgment regarding the probability of achieving certain future milestones. Future changes in our estimates could result in expenses or gains. Changes in the fair value of contingent consideration subsequent to the acquisition date are recognized in selling, general and administrative expense in our consolidated statements of operations.

We typically use the discounted cash flow method to value our acquired intangible assets. This method requires management judgment to forecast future operating results and establish residual growth rates and discount factors. The estimates we use to value and amortize intangible assets are consistent with the plans and estimates that we use to manage our business and are based on available historical information and industry estimates and averages. If the subsequent actual results and updated projections of the underlying business activity change compared with the assumptions and projections used to develop these values, we could experience impairment charges. In addition, we have estimated the economic lives of certain acquired assets and these lives are used to calculate depreciation and amortization expense. If our estimates of the economic lives change, depreciation or amortization expense could be accelerated or extended. We capitalize in-process research and development (IPR&D), which is considered indefinite lived until the completion or abandonment of the associated research and development efforts. Upon reaching the end of the relevant research and development project (i.e., upon commercialization), the IPR&D asset is amortized over its estimated useful life. If the relevant research and development project is abandoned, the IPR&D asset is expensed in the period of abandonment.

If the initial accounting for a business combination is incomplete by the end of a reporting period that falls within the measurement period (not to exceed a year from the date of acquisition), we report provisional amounts in our financial statements. During the measurement period, we adjust the provisional amounts recognized at the acquisition date to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the measurement of the amounts recognized as of that date. We record these adjustments to the provisional amounts with a corresponding offset to goodwill. Any adjustments identified after the measurement period are recorded in the consolidated statements of operations.

Goodwill and Intangible Assets with Indefinite Lives — Impairment Assessment

Goodwill and other intangible assets with indefinite useful lives (i.e., IPR&D) are not amortized, however they are tested annually for impairment, in the second quarter of our fiscal year, and whenever events or changes in circumstances indicate that it is more likely than not that the fair value is less than the carrying value. Events that would indicate impairment and trigger an interim impairment test include, but are not limited to, current economic and market conditions, including a decline in market capitalization, a significant adverse change in legal factors, business climate or operational performance of the business, and an adverse action or assessment by a regulator.

We perform our goodwill impairment analysis at the reporting unit level, which aligns with our reporting structure and availability of discrete financial information. During the goodwill impairment review, we assess qualitative factors to determine whether it is more likely than not that the fair values of our reporting units are less than the carrying amounts, including goodwill. The qualitative factors include, but are not limited to, macroeconomic conditions, industry and market considerations, and our overall financial performance. If, after assessing the totality of these qualitative factors, we determine that it is not more likely than not that the fair values of our reporting units are less than the carrying amounts, then no additional assessment is deemed necessary. Otherwise, we proceed to compare the estimated fair values of the reporting units with the carrying values, including goodwill. If the carrying amounts of the reporting units exceed the fair values, we record an impairment loss based on the difference. If a quantitative assessment is performed, the evaluation includes management estimates of cash flow projections based on internal future projections and/or use of a market approach by looking at market values of comparable companies. Key assumptions include, but are not limited to, future revenue growth, operating margins, capital expenditures, terminal growth rates and discount rates. We also consider our market capitalization as a part of our analysis. We may elect to bypass the qualitative assessment in a period and proceed to perform the quantitative goodwill impairment test.

The IPR&D impairment test is performed by comparing the fair value of the asset to its carrying amount. When testing indefinite-lived intangibles for impairment, we may assess qualitative factors to determine whether it is more likely than not that the asset is impaired. Alternatively, we may bypass this qualitative assessment and perform a quantitative impairment test. We estimate the fair value of IPR&D using a discounted cash flow model, which requires the use of significant estimates and assumptions, including, but not limited to, estimating the timing of future cash flows, growth rates, and discount rates. If the IPR&D is impaired, the carrying value of the IPR&D is written down to the revised fair value with the related impairment charge recognized in the period in which the impairment occurs.

Intangible Assets and Other Long-Lived Assets — Impairment Assessment

We perform regular reviews to determine if any event has occurred that may indicate that the carrying values of our intangible assets with finite lives and other long-lived assets are impaired. If indicators of impairment exist, we assess the recoverability of the affected assets by determining whether their carrying amounts exceed their undiscounted expected future cash flows. If the affected assets are not recoverable, we estimate the fair value of the assets and record an impairment loss if the carrying value exceeds the fair value. Factors that may indicate potential impairment include a significant decline in our stock price and market capitalization compared to net book value, significant changes in the ability of an asset to generate positive cash flows and the pattern of utilization of a particular asset.

In order to estimate the fair values of identifiable intangible assets with finite lives and other long-lived assets, we estimate the present value of future cash flows from those assets. The key assumptions that we use in our cash flow model are the amount and timing of estimated future cash flows to be generated by the asset over an extended period of time and a rate of return that considers the relative risk of achieving the cash flows, the time value of money, and other factors that a willing market participant would consider. Management judgment is required to estimate the amount and timing of future cash flows and the relative risk of achieving those cash flows.

We review our operating lease right-of-use (ROU) assets for impairment whenever events or changes in circumstances indicate that the carrying value of the ROU asset may not be recoverable. The evaluation is performed at the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets

and liabilities. We consider a triggering event to reassess an ROU asset's asset group to have occurred if we exit a portion of or the full facility or enter into a sublease. Factors that may indicate potential impairment include a significant decrease in the market price of an underlying leased asset group. If we conclude that the carrying value of affected assets will not be recovered, we estimate the fair value of the assets and record an impairment in an amount equal to the excess of the carrying value over the fair value. We estimate the present value of future cash flows from our assets in order to determine the fair value. There is uncertainty in the projected future cash flows used in our impairment review analysis, which requires the use of estimates and assumptions.

Assumptions and estimates about future values and remaining useful lives are complex and often subjective. They can be affected by a variety of factors, including external factors such as industry and economic trends, and internal factors such as changes in our business strategy and our internal forecasts. For example, if our future operating results do not meet current forecasts or if we experience a sustained decline in our market capitalization that is determined to be indicative of a reduction in fair value of our reporting units, we may be required to record future impairment charges for purchased intangible assets with finite lives. Impairment charges could materially decrease our future results of operations and result in lower asset values on our balance sheet.

Income Taxes

Our provision for income taxes, deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflect our best assessment of estimated future taxes to be paid. Judgments and estimates based on interpretations of existing tax laws or regulations in the United States and the numerous foreign jurisdictions where we are subject to income tax are required in determining our provision for income taxes. Changes in tax laws, regulations, or statutory tax rates (including the implementation of global minimum tax rates in certain jurisdictions), and estimates of our future taxable income could impact the deferred tax assets and liabilities provided for in the consolidated financial statements and would require an adjustment to the provision for income taxes.

Deferred tax assets are regularly assessed to determine the likelihood they will be recovered from future taxable income. A valuation allowance is established when we believe it is more likely than not the future realization of all or some of a deferred tax asset will not be achieved. In evaluating our ability to recover deferred tax assets within the jurisdiction which they arise, we consider all available positive and negative evidence. Factors reviewed include the cumulative pre-tax book income for the past three years, scheduled reversals of deferred tax liabilities, our history of earnings and reliability of our forecasts, projections of pre-tax book income over the foreseeable future, and the impact of any feasible and prudent tax planning strategies.

We recognize the impact of a tax position in our consolidated financial statements only if that position is more likely than not of being sustained upon examination by taxing authorities, based on the technical merits of the position. Tax authorities regularly examine our returns in the jurisdictions in which we do business and we regularly assess the tax risk of our return filing positions. Due to the complexity of some of the uncertainties, the ultimate resolution may result in payments that are materially different from our current estimate of the tax liability. These differences, as well as any interest and penalties, will be reflected in the provision for income taxes in the period in which they are determined.

QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Interest Rate Risk

Our current investment policy with respect to our cash, cash equivalents and short-term investments focuses on maintaining acceptable levels of interest rate risk and liquidity. To achieve these objectives, our policy allows us to maintain a portfolio of cash equivalents and short-term investments in a variety of securities, including money market funds, U.S. Treasury debt and corporate debt securities. Our policy also limits the amount of credit exposure to any one issuer and type of instrument. Under our current policies, we do not use interest rate derivative instruments to manage exposure to interest rate changes. As of December 31, 2023, our cash equivalents consisted primarily of U.S. government money market funds that invest in very liquid investments, namely, cash, government securities and purchase agreements that are collateralized fully with government securities. U.S. government money market funds provide same day liquidity and have a net asset value of \$1.00. We have historically maintained a relatively short average maturity for our investment portfolio, and we believe a hypothetical 100 basis point adverse move in interest rates along the entire interest rate yield curve would not materially affect the fair value of our interest-sensitive financial instruments. We held no debt securities as of December 31, 2023.

In March 2021, we issued \$500 million of 0.550% notes due 2023, which matured and were repaid in cash on March 23, 2023, and \$500 million of 2.550% notes due 2031. In December 2022, we issued \$500 million of 5.800% notes

due 2025 and \$500 million of 5.750% notes due 2027. We carry the notes at the principal amount, less unamortized discount and debt issuance costs, on our consolidated balance sheets. Because the notes have fixed annual interest rates, we do not have any economic interest rate exposure or financial statement risk associated with changes in interest rates. The fair value of the notes, however, may fluctuate when interest rates change. See note [“5. Debt and Other Commitments”](#) for more information.

Foreign Currency Exchange Risk

We conduct a portion of our business in currencies other than our U.S. dollar functional currency. These transactions give rise to cash flows and monetary assets and liabilities that are denominated in currencies other than the U.S. dollar; the value of these amounts are exposed to changes in currency exchange rates from the time the transactions are forecasted or originated until the time the cash settlement is converted into U.S. dollars. Our foreign currency exposures are primarily concentrated in the euro, Japanese yen, Australian dollar, Canadian dollar, Singapore dollar, Chinese Yuan Renminbi, and British pound. We use forward exchange contracts to manage these foreign currency risks and to hedge portions of our foreign currency exposure associated with forecasted revenue transactions. We only use derivative financial instruments to reduce foreign currency exchange rate risks; we do not hold any derivative financial instruments for trading or speculative purposes. The counterparties to these forward exchange contracts expose us to credit-related risks in the event of their non-performance. We mitigate this risk by actively monitoring credit ratings and only selecting major financial institutions as counterparties. Additionally, our risk of credit-related loss is limited to the fair value of these financial contracts, which were not material to our financial position.

Our forward exchange contracts used to manage foreign currency risks related to monetary assets and liabilities have terms of one month or less. Realized and unrealized gains or losses on the fair value of these financial contracts are included in the determination of net income (loss), as they have not been designated for hedge accounting. These contracts, which settle monthly, effectively fix the exchange rate at which these specific monetary assets and liabilities will be settled, so that gains or losses on the forward contracts offset the gains or losses from changes in the value of the underlying monetary assets and liabilities. As of December 31, 2023, the total notional amounts of outstanding forward contracts in place for these foreign currency purchases was \$926 million. Our forward exchange contracts used to hedge portions of our foreign currency exposure associated with forecasted revenue transactions have terms of up to 24 months. These derivative financial instruments are designated as cash flow hedges. Gains and losses on these financial contracts, which settle monthly, are generally recorded to revenue in the same period the underlying hedged transactions are recorded. As of December 31, 2023, the total notional amounts of outstanding forward contracts in place for these foreign currency purchases was \$628 million.

RECENT ACCOUNTING PRONOUNCEMENTS

For a summary of recent accounting pronouncements applicable to our consolidated financial statements see note "[1. Organization and Significant Accounting Policies](#)" within the Consolidated Financial Statements section of this report, which is incorporated herein by reference.

CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Illumina, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Illumina, Inc. (the Company) as of December 31, 2023 and January 1, 2023, the related consolidated statements of operations, comprehensive (loss) income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2023, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2023 and January 1, 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 16, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Interim goodwill impairment assessment of GRAIL reporting unit

Description of the Matter

The Company tests goodwill for impairment annually, as of May, or more frequently if events or circumstances indicate it is more likely than not that the fair value of a reporting unit is less than its carrying amount. The Company identified certain triggering events that occurred in the three months ended October 1, 2023 that required an interim goodwill impairment test. Reporting units were tested for impairment by comparing their fair values to their carrying values. As discussed in Note 4 to the consolidated financial statements, as a result of the interim impairment assessment, the Company recorded an impairment loss of \$712 million related to the GRAIL reporting unit. The carrying value of goodwill as of December 31, 2023 was \$2.5 billion, of which \$1.5 billion related to the GRAIL reporting unit.

Auditing the Company's goodwill impairment assessment was complex and required significant auditor judgment due to the significant estimation uncertainty in determining the fair value of the GRAIL reporting segment. Management used a combination of income- and market-based approaches to estimate the fair value of the GRAIL reporting unit. A significant emphasis is placed on the appropriateness of the estimate considerations used by management to determine the fair value of the GRAIL reporting unit due to the sensitivity of the fair value to the underlying assumptions. The significant assumptions include forecasted revenues for GRAIL and the discount rate used to discount future cash flows. These significant assumptions related to the fair value of the GRAIL reporting unit are forward-looking and could be affected by future economic and market conditions.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls over the Company's process for determining the fair value of the GRAIL reporting unit used in the goodwill impairment assessment. This included controls over management's development of the above-described assumptions used in the valuation model applied.

In testing the valuation of the GRAIL reporting unit, we performed audit procedures that included, among others, evaluating the Company's use of the income- and market-based approaches and testing the significant assumptions used in the model, as described above. We evaluated the completeness and accuracy of underlying data used in supporting the assumptions and estimates. We evaluated the reasonableness of projected revenue growth used within the valuations against analyst expectations, industry trends, market trends, and other market information. In addition, we involved valuation specialists to assist in evaluating the Company's use of the income- and market-based approaches and selection of the discount rate. Our valuation specialists evaluated the discount rate by comparing it against a discount rate range that was independently developed using publicly available market data for comparable entities.

GRAIL contingent consideration

Description of the Matter

In connection with the August 18, 2021 acquisition of GRAIL, the Company recognized a contingent consideration liability at the estimated fair value on the acquisition date. The Company uses a Monte Carlo simulation model to determine the fair value of the contingent consideration liability each reporting period. As disclosed in Note 3 of the consolidated financial statements, the fair value of the contingent consideration liability as of December 31, 2023 is \$387 million. The Company recognized a \$24 million gain in the current year as a result of the change in the fair value of the contingent consideration liability.

Auditing the valuation of the contingent consideration liability was complex and required significant auditor judgment due to the estimation uncertainty in evaluating the reasonableness of the significant assumptions. A significant emphasis is placed on the appropriateness of the estimate considerations used by management to determine the fair value of the GRAIL contingent consideration due to the sensitivity of the fair value to the underlying assumptions. The significant assumptions to the model include forecasted revenues for GRAIL and the discount rate based on the estimated timing of payments. These significant assumptions are forward-looking and could be affected by future economic and market conditions.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls over the Company's process for determining the fair value of the contingent consideration liability related to the GRAIL acquisition. This included controls over management's development of the above-described assumptions used in the valuation model applied.

In testing the valuation of the contingent consideration liability, we performed audit procedures that included, among others, evaluating the Company's use of the Monte Carlo simulation model and testing the significant assumptions used in the model, as described above. We evaluated the completeness and accuracy of underlying data used in supporting the assumptions and estimates. We evaluated the reasonableness of projected revenue growth used within the valuations against analyst expectations, industry trends, market trends, and other market information. In addition, we involved valuation specialists to assist in evaluating the Company's use of the Monte Carlo simulation model and selection of the discount rate. Our valuation specialists evaluated the discount rate by comparing it against a discount rate range that was independently developed using publicly available market data for comparable entities.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2000.

San Diego, California
February 16, 2024

ILLUMINA, INC.
CONSOLIDATED BALANCE SHEETS
(In millions, except par value)

	December 31, 2023	January 1, 2023
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 1,048	\$ 2,011
Short-term investments	6	26
Accounts receivable, net	734	671
Inventory, net	587	568
Prepaid expenses and other current assets	234	285
Total current assets	<u>2,609</u>	<u>3,561</u>
Property and equipment, net	1,007	1,091
Operating lease right-of-use assets	544	653
Goodwill	2,545	3,239
Intangible assets, net	2,993	3,285
Other assets	413	423
Total assets	<u>\$ 10,111</u>	<u>\$ 12,252</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 245	\$ 293
Accrued liabilities	1,325	1,232
Term notes, current portion	—	500
Convertible senior notes, current portion	—	748
Total current liabilities	<u>1,570</u>	<u>2,773</u>
Operating lease liabilities	687	744
Term notes	1,489	1,487
Other long-term liabilities	620	649
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.01 par value, 10 million shares authorized; no shares issued and outstanding at December 31, 2023 and January 1, 2023	—	—
Common stock, \$0.01 par value, 320 million shares authorized; 199 million shares issued and 159 million outstanding at December 31, 2023; 198 million shares issued and 158 million outstanding at January 1, 2023	2	2
Additional paid-in capital	9,555	9,207
Accumulated other comprehensive (loss) income	(1)	3
(Accumulated deficit) retained earnings	(19)	1,142
Treasury stock, 40 million shares at both December 31, 2023 and January 1, 2023	(3,792)	(3,755)
Total stockholders' equity	<u>5,745</u>	<u>6,599</u>
Total liabilities and stockholders' equity	<u>\$ 10,111</u>	<u>\$ 12,252</u>

See accompanying notes to consolidated financial statements.

ILLUMINA, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In millions, except per share amounts)

	Years Ended		
	December 31, 2023	January 1, 2023	January 2, 2022
Revenue:			
Product revenue	\$ 3,787	\$ 3,953	\$ 3,968
Service and other revenue	717	631	558
Total revenue	<u>4,504</u>	<u>4,584</u>	<u>4,526</u>
Cost of revenue:			
Cost of product revenue	1,177	1,144	1,060
Cost of service and other revenue	392	295	241
Amortization of acquired intangible assets	191	173	71
Total cost of revenue	<u>1,760</u>	<u>1,612</u>	<u>1,372</u>
Gross profit	<u>2,744</u>	<u>2,972</u>	<u>3,154</u>
Operating expense:			
Research and development	1,354	1,321	1,185
Selling, general and administrative	1,612	1,297	2,092
Goodwill and intangible impairment	827	3,914	—
Legal contingency and settlement	20	619	—
Total operating expense	<u>3,813</u>	<u>7,151</u>	<u>3,277</u>
Loss from operations	<u>(1,069)</u>	<u>(4,179)</u>	<u>(123)</u>
Other income (expense):			
Interest income	58	11	—
Interest expense	(77)	(26)	(61)
Other (expense) income, net	(29)	(142)	1,068
Total other (expense) income, net	<u>(48)</u>	<u>(157)</u>	<u>1,007</u>
(Loss) income before income taxes	<u>(1,117)</u>	<u>(4,336)</u>	<u>884</u>
Provision for income taxes	44	68	122
Net (loss) income	<u>\$ (1,161)</u>	<u>\$ (4,404)</u>	<u>\$ 762</u>
(Loss) earnings per share:			
Basic	\$ (7.34)	\$ (28.00)	\$ 5.07
Diluted	\$ (7.34)	\$ (28.00)	\$ 5.04
Shares used in computing (loss) earnings per share:			
Basic	158	157	150
Diluted	158	157	151

See accompanying notes to consolidated financial statements.

ILLUMINA, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(In millions)

	Years Ended		
	December 31, 2023	January 1, 2023	January 2, 2022
Net (loss) income	\$ (1,161)	\$ (4,404)	\$ 762
Unrealized (loss) gain on cash flow hedges, net of deferred tax	(4)	(14)	16
Unrealized loss on available-for-sale debt securities, net of deferred tax	—	—	(1)
Total comprehensive (loss) income	<u>\$ (1,165)</u>	<u>\$ (4,418)</u>	<u>\$ 777</u>

See accompanying notes to consolidated financial statements.

ILLUMINA, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In millions)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings (Accumulated Deficit)	Treasury Stock		Total Stockholders' Equity
	Shares	Amount				Shares	Amount	
Balance as of January 3, 2021	195	\$ 2	\$ 3,815	\$ 2	\$ 4,723	(49)	\$ (3,848)	\$ 4,694
Net income	—	—	—	—	762	—	—	762
Unrealized loss on available-for-sale debt securities, net of deferred tax	—	—	—	(1)	—	—	—	(1)
Unrealized gain on cash flow hedges, net of deferred tax	—	—	—	16	—	—	—	16
Issuance of common stock, net of repurchases	2	—	60	—	—	(1)	(91)	(31)
GRAIL acquisition	—	—	4,749	—	—	10	237	4,986
Exchange of GRAIL contingent value rights	—	—	2	—	—	—	—	2
Share-based compensation	—	—	312	—	—	—	—	312
Balance as of January 2, 2022	197	2	8,938	17	5,485	(40)	(3,702)	10,740
Net loss	—	—	—	—	(4,404)	—	—	(4,404)
Unrealized loss on cash flow hedges, net of deferred tax	—	—	—	(14)	—	—	—	(14)
Issuance of common stock, net of repurchases	1	—	63	—	—	—	(53)	10
Share-based compensation	—	—	299	—	—	—	—	299
Cumulative-effect adjustment from adoption of ASU 2020-06, net of deferred tax	—	—	(93)	—	61	—	—	(32)
Balance as of January 1, 2023	198	2	9,207	3	1,142	(40)	(3,755)	6,599
Net loss	—	—	—	—	(1,161)	—	—	(1,161)
Reclassification of liability-classified awards	—	—	9	—	—	—	—	9
Unrealized loss on cash flow hedges, net of deferred tax	—	—	—	(4)	—	—	—	(4)
Issuance of common stock, net of repurchases	1	—	64	—	—	—	(37)	27
Share-based compensation	—	—	275	—	—	—	—	275
Balance as of December 31, 2023	199	\$ 2	\$ 9,555	\$ (1)	\$ (19)	(40)	\$ (3,792)	\$ 5,745

See accompanying notes to consolidated financial statements.

ILLUMINA, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Years Ended		
	December 31, 2023	January 1, 2023	January 2, 2022
Cash flows from operating activities:			
Net (loss) income	\$ (1,161)	\$ (4,404)	\$ 762
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation expense	235	215	176
Amortization of intangible assets	197	179	75
Share-based compensation expense	380	366	754
Accretion of debt discount on convertible senior notes	—	—	32
Deferred income taxes	(33)	(23)	(76)
Goodwill and intangible (IPR&D) impairment	827	3,914	—
Gain on previously held investment in GRAIL	—	—	(899)
Gain on exchange of GRAIL contingent value rights	—	—	(86)
Net losses (gains) on strategic investments	40	122	(18)
(Gain) loss on Helix contingent value right	(10)	7	(30)
Payment of accreted debt discount	(15)	—	—
Gain on derivative assets related to terminated acquisition	—	—	(26)
Property and equipment and right-of-use asset impairment	100	9	6
Change in fair value of contingent consideration liabilities	(24)	(205)	4
Unrealized loss on foreign exchange translation	22	1	—
Other	10	7	23
Changes in operating assets and liabilities:			
Accounts receivable	(40)	(12)	(164)
Inventory	(20)	(135)	(58)
Prepaid expenses and other current assets	11	16	(64)
Operating lease right-of-use assets and liabilities, net	(16)	(8)	(13)
Other assets	5	19	(27)
Accounts payable	(44)	(38)	60
Accrued liabilities	15	381	101
Other long-term liabilities	(1)	(19)	13
Net cash provided by operating activities	<u>478</u>	<u>392</u>	<u>545</u>
Cash flows from investing activities:			
Maturities of available-for-sale securities	—	—	331
Purchases of available-for-sale securities	—	—	(77)
Sales of available-for-sale securities	—	—	1,031
Purchases of property and equipment	(195)	(286)	(208)
Net (purchases) sales of strategic investments	(6)	(40)	246
Cash received for derivative assets related to terminated acquisition	—	—	52
Net cash paid for acquisitions	(29)	(85)	(2,444)
Cash paid for intangible asset	(1)	(180)	—
Net cash used in investing activities	<u>(231)</u>	<u>(591)</u>	<u>(1,069)</u>
Cash flows from financing activities:			
Debt issuance costs paid for credit facility	(1)	—	—
Payments on financing obligations	(1,235)	—	(517)
Payments on contingent consideration liabilities	(1)	—	(71)
Net proceeds from issuance of debt	—	991	988
Proceeds from issuance of common stock	67	63	60
Taxes paid related to net share settlement of equity awards	(40)	(54)	(511)
Net cash (used in) provided by financing activities	<u>(1,210)</u>	<u>1,000</u>	<u>(51)</u>
Effect of exchange rate changes on cash and cash equivalents	—	(22)	(3)
Net (decrease) increase in cash and cash equivalents	<u>(963)</u>	<u>779</u>	<u>(578)</u>
Cash and cash equivalents at beginning of year	<u>2,011</u>	<u>1,232</u>	<u>1,810</u>
Cash and cash equivalents at end of year	<u>\$ 1,048</u>	<u>\$ 2,011</u>	<u>\$ 1,232</u>
Supplemental cash flow information:			
Cash paid for interest	<u>\$ 73</u>	<u>\$ 17</u>	<u>\$ 9</u>
Cash paid for income taxes	<u>\$ 65</u>	<u>\$ 122</u>	<u>\$ 233</u>
Cash paid for operating lease liabilities	<u>\$ 123</u>	<u>\$ 112</u>	<u>\$ 96</u>

See accompanying notes to consolidated financial statements.

ILLUMINA, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Unless the context requires otherwise, references in this report to "Illumina," the "Company," "we," "us," and "our" refer to Illumina, Inc. and its consolidated subsidiaries.

1. ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

Business Overview

We are a provider of sequencing- and array-based solutions, serving customers in the research, clinical and applied markets. Our products are used for applications in the life sciences, oncology, reproductive health, agriculture and other emerging segments. Our customers include leading genomic research centers, academic institutions, government laboratories, and hospitals, as well as pharmaceutical, biotechnology, commercial molecular diagnostic laboratories, and consumer genomics companies.

On August 18, 2021, we acquired GRAIL, a healthcare company focused on early detection of multiple cancers. The acquisition is subject to ongoing legal proceedings, and, currently, GRAIL must be held and operated separately and independently from Illumina pursuant to the transitional measures ordered by the European Commission in the EC Divestment Decision, following the prohibition of our acquisition of GRAIL on September 6, 2022. Refer to note "[8. Legal Proceedings](#)" for additional details. We have included the financial results of GRAIL in our consolidated financial statements from the date of acquisition. On December 17, 2023, we announced that we will divest GRAIL.

Basis of Presentation

The consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles (GAAP) and include our accounts, our wholly-owned subsidiaries, and majority-owned or controlled companies. All intercompany transactions and balances have been eliminated in consolidation. Certain prior period amounts have been reclassified to conform to the current period presentation.

Variable Interest Entities (VIEs)

We evaluate our ownership, contractual and other interests in entities that are not wholly-owned to determine if these entities are VIEs, and, if so, whether we are the primary beneficiary of the VIE. In determining whether we are the primary beneficiary of a VIE and therefore required to consolidate the VIE, we apply a qualitative approach that determines whether we have both (1) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and (2) the obligation to absorb losses of, or the rights to receive benefits from, the VIE that could potentially be significant to that VIE. We continuously perform this assessment, as changes to existing relationships or future transactions may result in the consolidation or deconsolidation of a VIE. As of December 31, 2023, there were no VIEs for which we were the primary beneficiary and for which we were required to consolidate.

Use of Estimates

The preparation of the consolidated financial statements requires that management make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures of contingent assets and liabilities. Though macroeconomic factors such as inflation, exchange rate fluctuations and concerns about an economic downturn present additional uncertainty, we continue to use the best information available to inform our critical accounting estimates. Actual results could differ from those estimates.

Fiscal Year

Our fiscal year is the 52 or 53 weeks ending the Sunday closest to December 31, with quarters of 13 or 14 weeks ending the Sunday closest to March 31, June 30, September 30, and December 31. References to 2023, 2022, and 2021 refer to fiscal years ended December 31, 2023, January 1, 2023, and January 2, 2022, respectively. Fiscal years 2023, 2022, and 2021 were all 52 weeks.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Functional Currency

The U.S. dollar is the functional currency of our international operations. We re-measure foreign subsidiaries' monetary assets and liabilities to the U.S. dollar and record the net gains or losses resulting from re-measurement in other (expense) income, net in the consolidated statements of operations.

Concentrations of Risk***Customers***

We operate in markets that are highly competitive and rapidly changing. Significant technological changes, shifting customer needs, the emergence of competitive products or services with new capabilities, and other factors could negatively impact our operating results. A portion of our customers consist of university and research institutions that management believes are, to some degree, directly or indirectly supported by the United States Government. A significant change in current research funding, particularly with respect to the U.S. National Institutes of Health, could have an adverse impact on future revenues and results of operations.

International sales entail a variety of risks, including currency exchange fluctuations, longer payment cycles, and greater difficulty in accounts receivable collection. We are also subject to general geopolitical risks, such as political, social and economic instability, and changes in diplomatic and trade relations. The risks of international sales are mitigated in part by the extent to which sales are geographically distributed. Shipments to customers outside the United States comprised 48%, 50%, and 52% of total revenue in 2023, 2022, and 2021, respectively. Customers outside the United States represented 55% and 54% of our gross trade accounts receivable balance as of December 31, 2023 and January 1, 2023, respectively.

We had no customers that provided more than 10% of total revenue in 2023, 2022, and 2021. We perform regular reviews of customer activity and associated credit risks and do not require collateral or enter into netting arrangements. Historically, we have not experienced significant credit losses from accounts receivable.

Financial Instruments

We are also subject to risks related to our financial instruments, including cash and cash equivalents, investments, and accounts receivable. Most of our cash and cash equivalents as of December 31, 2023 were deposited with U.S. financial institutions, either domestically or with their foreign branches. Our investment policy restricts the amount of credit exposure to any one issuer to 5% of the portfolio or 5% of the total issue size outstanding at the time of purchase and to any one industry sector, as defined by Clearwater Analytics (Industry Sector Report), to 30% of the portfolio at the time of purchase. There is no limit to the percentage of the portfolio that may be maintained in debt securities, U.S. government-sponsored entities, U.S. Treasury securities, and money market funds. Historically, we have not experienced significant credit losses from financial instruments.

Suppliers

We require customized products and components that currently are available from a limited number of sources. We source certain key products and components included in our products from single vendors. Historically, we have not experienced significant issues sourcing materials to build our products.

Segments

We report segment information based on the management approach. This approach designates the internal reporting used by the Chief Operating Decision Maker (CODM) for making decisions and assessing performance as the source of our reportable segments. The CODM allocates resources and assesses the performance of each operating segment using information about its revenue and income (loss) from operations. Management evaluates the performance of our reportable segments based upon income (loss) from operations. Our CODM does not evaluate our operating segments using discrete asset information. We do not allocate expenses between segments.

ILLUMINA, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Accounting Pronouncements Adopted in 2022

In August 2020, the FASB issued ASU 2020-06, *Debt - Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40)*. The new standard reduces the number of accounting models for convertible debt instruments, amends the accounting for certain contracts in an entity's own equity, and modifies how certain convertible instruments and contracts that may be settled in cash or shares impact the calculation of diluted earnings per share. Specifically, the guidance removes certain accounting models that separate the embedded conversion features from the host contract for convertible instruments and requires the use of the if-converted method to calculate diluted earnings per share. We adopted the standard on its effective date in the first quarter of 2022 using a modified retrospective approach by recognizing a cumulative-effect adjustment to retained earnings on January 3, 2022. We did not restate prior periods. As a result of the adoption, we increased our convertible senior notes and retained earnings, on January 3, 2022, by \$43 million and \$61 million, respectively, and decreased our deferred tax liabilities, included in other long-term liabilities on the consolidated balance sheets, and additional paid-in capital by \$11 million and \$93 million, respectively. Interest expense recognized post-adoption has decreased as a result of accounting for our convertible senior notes as a single liability measured at amortized cost. See note "[5. Debt and Other Commitments](#)" for additional details on the adoption of ASU 2020-06.

Accounting Pronouncements Pending Adoption

In December 2023, the FASB issued ASU 2023-07, *Segment Reporting (Topic 280) - Improvements to Reportable Segment Disclosures*. The new standard requires a company to disclose incremental segment information on an annual and interim basis, including significant segment expenses and measures of profit or loss that are regularly provided to the chief operating decision maker (CODM). The standard is effective for us beginning in fiscal year 2024 and interim periods within fiscal year 2025, with early adoption permitted. We do not expect to early adopt the new standard. We are currently evaluating the impact of ASU 2023-07 on the consolidated financial statements and related disclosures and will adopt the new standard using a retrospective approach.

In December 2023, the FASB also issued ASU 2023-09, *Income Taxes (Topic 740) - Improvements to Income Tax Disclosures*. The new standard requires a company to expand its existing income tax disclosures, specifically related to the rate reconciliation and income taxes paid. The standard is effective for us beginning in fiscal year 2025, with early adoption permitted. We do not expect to early adopt the new standard. The new standard is expected to be applied prospectively, but retrospective application is permitted. We are currently evaluating the impact of ASU 2023-09 on the consolidated financial statements and related disclosures.

Revenue Recognition

Our revenue is generated primarily from the sale of products and services. Product revenue primarily consists of sales of instruments and consumables used in genetic analysis. Service and other revenue primarily consists of revenue generated from genotyping and sequencing services, instrument service contracts, development and licensing agreements, and cancer detection testing services related to the GRAIL business.

We recognize revenue when control of our products and services is transferred to our customers in an amount that reflects the consideration we expect to receive from our customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when the performance obligations have been satisfied. Revenue recognition for contracts with multiple deliverables is based on the separate satisfaction of each distinct performance obligation within the contract. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. We consider a performance obligation satisfied once we have transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. The contract price is allocated to each performance obligation in proportion to its standalone selling price. We determine our best estimate of standalone selling price using average selling prices over a rolling 12-month period coupled with an assessment of current market conditions. If the product or service has no history of sales or if the sales volume is not sufficient, we rely upon prices set by management, adjusted for applicable discounts.

Revenue from product sales is recognized generally upon delivery to the end customer, which is when control of the product is deemed to be transferred. Invoicing typically occurs upon shipment and payment is typically due within 30

ILLUMINA, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

days from invoice. In instances where right of payment or transfer of title is contingent upon the customer's acceptance of the product, revenue is deferred until all acceptance criteria have been met. Revenue from genotyping and sequencing services, including cancer detection testing services related to the GRAIL business, is recognized when earned, which is generally at the time the genotyping or sequencing analysis data is made available to the customer. Revenue from instrument service contracts is recognized as the services are rendered, typically evenly over the contract term. Revenue from development and licensing agreements generally includes upfront and periodic licensing fees, contract research and development services, or payments for development and regulatory milestones. Revenue for these agreements is recognized when each distinct performance obligation is satisfied.

Revenue is recorded net of discounts, distributor commissions, and sales taxes collected on behalf of governmental authorities. Employee sales commissions are recorded as selling, general and administrative expense when incurred as the amortization period for such costs, if capitalized, would have been one year or less.

In certain markets, products and services are sold to customers through distributors. In most sales through distributors, the product is delivered directly to customers by us. The terms of sales transactions through distributors are consistent with the terms of direct sales to customers.

(Loss) Earnings per Share

Basic (loss) earnings per share is computed based on the weighted average number of common shares outstanding during the period. Diluted (loss) earnings per share is computed based on the sum of the weighted average number of common shares and potentially dilutive common shares outstanding during the period. In loss periods, basic and diluted loss per share are identical since the effect of potentially dilutive common shares is antidilutive and therefore excluded.

Potentially dilutive common shares consist of shares issuable under convertible senior notes and equity awards. On January 3, 2022, we adopted ASU 2020-06. As a result, beginning in Q1 2022, we utilize the if-converted method to calculate the impact of convertible senior notes on diluted (loss) earnings per share. Prior to the adoption of ASU 2020-06, we applied the treasury stock method when calculating the potential dilutive effect, if any, of convertible senior notes which we intended to settle or have settled in cash the principal outstanding. Under the treasury stock method, convertible senior notes would have a dilutive impact when the average market price of our common stock exceeded the applicable conversion price of the respective notes. Potentially dilutive common shares from equity awards are determined using the average share price for each period under the treasury stock method. In addition, proceeds from exercise of equity awards and the average amount of unrecognized compensation expense for equity awards are assumed to be used to repurchase shares.

The following table presents the calculation of weighted average shares used to calculate basic and diluted (loss) earnings per share:

<i>In millions</i>	Years Ended		
	December 31, 2023	January 1, 2023	January 2, 2022
Weighted average shares outstanding	158	157	150
Effect of potentially dilutive common shares from:			
Equity awards	—	—	1
Weighted average shares used in calculating diluted (loss) earnings per share	158	157	151
Antidilutive shares:			
Convertible senior notes	1	2	—
Equity awards	3	2	—
Potentially dilutive shares excluded from calculation due to antidilutive effect	4	4	—

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Fair Value Measurements

The fair value of assets and liabilities are based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value maximize the use of observable inputs and minimize the use of unobservable inputs. We use a fair value hierarchy with three levels of inputs, of which the first two are considered observable and the last unobservable, to measure fair value:

- *Level 1* — Quoted prices in active markets for identical assets or liabilities.
- *Level 2* — Inputs, other than Level 1, that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- *Level 3* — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The carrying amounts of financial instruments such as cash and cash equivalents, accounts receivable, prepaid expenses and other current assets, accounts payable, and accrued liabilities approximate the related fair values due to the short-term maturities of these instruments.

Cash Equivalents

Cash equivalents are comprised of short-term, highly-liquid investments with maturities of 90 days or less at the date of purchase.

Equity Securities and Investments

We have strategic investments in privately-held companies (non-marketable equity securities) and companies that have completed initial public offerings (marketable equity securities). Our marketable equity securities are measured at fair value. Our non-marketable equity securities without readily determinable market values are initially measured at cost and adjusted to fair value for observable transactions for identical or similar investments of the same issuer or impairment. Equity investments are classified as current, short-term investments, or noncurrent, recorded in other assets, based on the nature of the securities and their availability for use in current operations. Unrealized gains and losses on our equity investments are recorded in other (expense) income, net in the consolidated statements of operations. Our equity investments are assessed for impairment quarterly. Impairment losses, equal to the difference between the carrying value and the fair value of the investment, are recorded in other (expense) income, net.

We use the equity method to account for investments through which we have the ability to exercise significant influence, but not control, over the investee. Such investments are recorded in other assets, and our share of net income or loss is recognized on a one quarter lag in other (expense) income, net.

Accounts Receivable

Trade accounts receivable are recorded at the net invoice value and are not interest-bearing. Receivables are considered past due based on the contractual payment terms. We reserve a percentage of our trade receivable balance based on collection history and current economic trends that we expect will impact the level of credit losses over the life of our receivables. These reserves are re-evaluated on a regular basis and adjusted, as needed. Once a receivable is deemed to be uncollectible, such balance is charged against the reserve.

Inventory

Inventory is stated at the lower of cost or net realizable value, on a first-in, first-out basis. Inventory includes raw materials and finished goods that may be used in the research and development process, and such items are expensed as consumed or capitalized as property and equipment and depreciated. Inventory write-downs for slow-moving, excess, and obsolete inventories are estimated based on product life cycles, quality issues, historical experience, and usage forecasts.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Property and Equipment

Property and equipment are stated at cost, subject to review for impairment, and depreciated over the estimated useful lives of the assets, using the straight-line method. Depreciation of leasehold improvements is recorded over the shorter of the lease term or the estimated useful life of the related assets. Maintenance and repairs are expensed as incurred. When assets are sold, or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any gain or loss is included in operating expense.

Costs incurred to develop internal-use software during the application development stage are recorded as computer software costs, at cost. Costs incurred in the development of such internal-use software, including external direct costs of materials and services and applicable compensation costs of employees devoted to specific software application development, are capitalized. Costs incurred outside of the application development stage are expensed as incurred.

The estimated useful lives of the major classes of property and equipment are generally as follows:

Buildings and leasehold improvements	4 to 20 years
Machinery and equipment	3 to 5 years
Computer hardware and software	3 to 9 years
Furniture and fixtures	7 years

Leases

We lease approximately 2.8 million square feet of office, lab, manufacturing, and distribution facilities under various non-cancellable operating lease agreements (real estate leases). Our real estate leases have remaining lease terms of approximately 1 year to 15 years, which represent the non-cancellable periods of the leases and include extension options that we determined are reasonably certain to be exercised. We exclude extension options that are not reasonably certain to be exercised from our lease terms, ranging from approximately 2 years to 20 years. Our lease payments consist primarily of fixed rental payments for the right to use the underlying leased assets over the lease terms, as well as payments for common-area-maintenance and administrative services. We often receive customary incentives from our landlords, such as reimbursements for tenant improvements and rent abatement periods, which effectively reduce the total lease payments owed for these leases. Leases are classified as operating or financing at commencement. We do not have any material financing leases.

Operating lease right-of-use assets and liabilities on our consolidated balance sheets represent the present value of our remaining lease payments over the remaining lease terms, less any impairments recorded for right-of-use assets. We do not allocate lease payments to non-lease components; therefore, fixed payments for common-area-maintenance and administrative services are included in our operating lease right-of-use assets and liabilities. We use our incremental borrowing rate to calculate the present value of our lease payments, as the implicit rates in our leases are not readily determinable. Operating lease costs consist primarily of the fixed lease payments included in our operating lease liabilities and are recorded on a straight-line basis over the lease terms. We sublease certain real estate to third parties and this sublease income is also recorded on a straight-line basis.

Business Combinations

Under the acquisition method of accounting, we allocate the fair value of the total consideration transferred to the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values on the date of acquisition. These valuations require us to make estimates and assumptions, especially with respect to intangible assets. We record the excess consideration over the aggregate fair value of tangible and intangible assets, net of liabilities assumed, as goodwill. Costs that we incur to complete the business combination, such as legal and other professional fees, are expensed as they are incurred.

ILLUMINA, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In connection with certain acquisitions, contingent consideration can be earned by the sellers upon completion of certain future performance milestones. In these cases, a liability is recorded on the acquisition date, as a component of accrued liabilities and/or other long-term liabilities, for an estimate of the acquisition-date fair value of the contingent consideration. These estimates require management judgment, including probabilities of achieving certain future milestones. Changes in the fair value of the contingent consideration subsequent to the acquisition date are recognized in selling, general and administrative expense in our consolidated statements of operations.

If the initial accounting for a business combination is incomplete by the end of a reporting period that falls within the measurement period (not to exceed a year from the date of acquisition), we report provisional amounts in our financial statements. During the measurement period, we adjust the provisional amounts recognized at the acquisition date to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the measurement of the amounts recognized as of that date. We record these adjustments to the provisional amounts with a corresponding offset to goodwill. Any adjustments identified after the measurement period are recorded in the consolidated statements of operations.

Goodwill, Intangible Assets and Other Long-Lived Assets

Assets acquired, including intangible assets and capitalized in-process research and development (IPR&D), and liabilities assumed are measured at fair value as of the acquisition date. Goodwill, which has an indefinite useful life, represents the excess of cost over fair value of the net assets acquired. Intangible assets acquired in a business combination that are used for IPR&D activities are considered indefinite lived until the completion or abandonment of the associated research and development efforts. Upon reaching the end of the relevant research and development project (i.e., upon commercialization), the IPR&D asset is amortized over its estimated useful life. If the relevant research and development project is abandoned, the IPR&D asset is expensed in the period of abandonment.

Goodwill and IPR&D are not amortized; however, they are reviewed for impairment at least annually during the second quarter, or more frequently if an event occurs indicating the potential for impairment. Goodwill and IPR&D are considered to be impaired if the carrying value of the reporting unit or IPR&D asset exceeds its respective fair value.

We perform our goodwill impairment analysis at the reporting unit level, which aligns with our reporting structure and availability of discrete financial information. During the goodwill impairment review, we assess qualitative factors to determine whether it is more likely than not that the fair values of our reporting units are less than the carrying amounts, including goodwill. The qualitative factors include, but are not limited to, macroeconomic conditions, industry and market considerations, and our overall financial performance. If, after assessing the totality of these qualitative factors, we determine that it is not more likely than not that the fair values of our reporting units are less than the carrying amounts, then no additional assessment is deemed necessary. Otherwise, we proceed to compare the estimated fair values of the reporting units with the carrying values, including goodwill. If the carrying amount of a reporting unit exceeds its fair value, we record an impairment loss based on the difference. We may elect to bypass the qualitative assessment in a period and proceed to perform the quantitative goodwill impairment test.

The IPR&D impairment test is performed by comparing the fair value of the asset to its carrying amount. When testing indefinite-lived intangibles for impairment, we may assess qualitative factors to determine whether it is more likely than not that the asset is impaired. Alternatively, we may bypass this qualitative assessment and perform a quantitative impairment test. If the IPR&D asset is impaired, the carrying value of the IPR&D is written down to the revised fair value with the related impairment charge recognized in the period in which the impairment occurs.

Our identifiable intangible assets with a finite life are typically comprised of acquired developed technologies, licensed technologies, customer relationships, license agreements, and trade names. The cost of identifiable intangible assets with finite lives is generally amortized on a straight-line basis over the assets' respective estimated useful lives.

We perform regular reviews to determine if any event has occurred that may indicate that intangible assets with finite useful lives and other long-lived assets are potentially impaired. If indicators of impairment exist, an impairment test is performed to assess the recoverability of the affected assets by determining whether the carrying amount of such assets exceeds the undiscounted expected future cash flows. If the affected assets are not recoverable, we estimate the fair value of the assets and record an impairment loss in an amount equal to the excess of the carrying value over the fair value. Factors that may indicate potential impairment include a significant decline in our stock price and market capitalization compared to the net book value, significant changes in the ability of a particular asset to generate positive cash flows for our strategic business objectives, and the pattern of utilization of a particular asset.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We review our operating lease right-of-use (ROU) assets for impairment whenever events or changes in circumstances indicate the carrying value of the ROU asset may not be recoverable. The evaluation is performed at the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. We consider a triggering event to reassess an ROU asset's asset group to have occurred if we exit a portion of or the full facility or enter into a sublease. Factors that may indicate potential impairment include a significant decrease in the market price of an underlying leased asset group. If we conclude the carrying value of affected assets will not be recovered, we estimate the fair value of the assets and record an impairment in an amount equal to the excess of the carrying value over the fair value.

Derivative Financial Instruments

We are exposed to foreign exchange rate risks in the normal course of business and use derivative financial instruments to partially offset this exposure. We do not use derivative financial instruments for speculative or trading purposes. Foreign exchange contracts are carried at fair value in other current assets, other assets, accrued liabilities, or other long-term liabilities, as appropriate, on the consolidated balance sheets.

We use foreign exchange forward contracts to manage foreign currency risks related to monetary assets and liabilities denominated in currencies other than the U.S. dollar. These derivative financial instruments have terms of one month or less and are not designated as hedging instruments. Changes in fair value of these derivatives are recognized in other (expense) income, net, along with the re-measurement gain or loss on the foreign currency denominated assets or liabilities. As of December 31, 2023, we had foreign exchange forward contracts in place to hedge exposures to monetary assets and liabilities denominated in the euro, Japanese yen, Australian dollar, Canadian dollar, Singapore dollar, Chinese Yuan Renminbi, and British pound. As of December 31, 2023 and January 1, 2023, the total notional amounts of outstanding forward contracts in place for these foreign currency purchases were \$926 million and \$485 million, respectively. In July 2023, we entered into forward contracts for a total notional amount of €432 million to hedge the foreign currency exposure for the fine imposed by the European Commission on July 12, 2023.

We also use foreign currency forward contracts to hedge portions of our foreign currency exposure associated with forecasted revenue transactions. These derivative financial instruments have terms up to 24 months and are designated as cash flow hedges. Changes in fair value of our cash flow hedges are recorded as a component of accumulated other comprehensive income and are reclassified to revenue in the same period the underlying hedged transactions are recorded. We regularly review the effectiveness of our cash flow hedges and consider them to be ineffective if it becomes probable that the forecasted transactions will not occur in the identified period. Changes in fair value of the ineffective portions of our cash flow hedges, if any, are recognized in other (expense) income, net. As of December 31, 2023, we had foreign currency forward contracts in place to hedge exposures associated with forecasted revenue transactions denominated in the euro, Japanese yen, Australian dollar, Canadian dollar, and Chinese Yuan Renminbi. As of December 31, 2023 and January 1, 2023, the total notional amounts of outstanding cash flow hedge contracts in place for these foreign currency purchases were \$628 million and \$425 million, respectively. We reclassified \$18 million, \$53 million, and \$10 million to revenue in 2023, 2022, and 2021, respectively. As of December 31, 2023, the fair value of the foreign currency forward contracts recorded in total assets and total liabilities was \$5 million and \$9 million, respectively. As of January 1, 2023, the fair value of foreign currency forward contracts recorded in total assets and total liabilities was \$8 million and \$6 million, respectively.

Warranties

We generally provide a one-year warranty on instruments. Additionally, we provide a warranty on consumables through the expiration date, which generally ranges from six to twelve months after the manufacture date. At the time revenue is recognized, an accrual is established for estimated warranty expenses based on historical experience as well as anticipated product performance. We periodically review the warranty reserve for adequacy and adjust the warranty accrual, if necessary, based on actual experience and estimated costs to be incurred. Warranty expense is recorded as a component of cost of product revenue.

Share-Based Compensation

Share-based compensation expense is incurred related to restricted stock, cash-based equity incentive awards, Employee Stock Purchase Plan (ESPP), and stock options. Forfeitures are accounted for, as incurred, as a reversal of share-based compensation expense related to awards that will not vest.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Restricted stock units (RSU) and performance stock units (PSU) are both considered restricted stock. The determination of the amount of share-based compensation expense for our PSU requires the use of certain estimates and assumptions that affect the amount of share-based compensation expense recognized in our consolidated statements of operations. The fair value of restricted stock and performance stock units that do not include a market condition is determined by the closing market price of our common stock on the date of grant. PSU that do not include a market condition represent a right to receive a certain number of shares of common stock based on the achievement of corporate performance goals and continued employment during the vesting period. At each reporting period, we reassess the probability of the achievement of such corporate performance goals and any increase or decrease in share-based compensation expense resulting from an adjustment in the estimated shares to be released is treated as a cumulative catch-up in the period of adjustment. The fair value of performance stock units that include a market condition is determined on the date of grant using a Monte Carlo simulation, which includes assumptions for expected volatility, risk-free interest rate and dividend yield. These unobservable inputs represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring fair value. Share-based compensation expense is recognized based on the fair value on a straight-line basis over the requisite service periods of the awards. Compensation expense for PSU that include a market condition is recognized over the requisite service period regardless of whether the market conditions are achieved.

Cash-based equity incentive awards are classified as liability awards, as such awards will be settled in cash. For purposes of valuation and performance measurement of the awards, GRAIL's stand-alone value calculation, as estimated by GRAIL based on its analysis and on input from independent valuation advisors and analyses, is used. The fair value of the awards is recorded over the respective vesting periods of the awards, with recognition of a corresponding liability recorded in accrued liabilities in the consolidated balance sheets. The awards are remeasured to fair value at each reporting date until the awards are settled, with changes in fair value recognized in share-based compensation expense.

The Black-Scholes-Merton option-pricing model is used to estimate the fair value of stock purchased under our ESPP and stock options granted. The model assumptions include expected volatility, term, dividends, and the risk-free interest rate. The expected volatility is generally determined by weighing the historical and implied volatility of our common stock. The historical volatility is generally commensurate with the estimated expected term. The implied volatility is calculated from the implied market volatility of exchange-traded call options on our common stock. The expected term is generally based on historical forfeiture experience, exercise activity, and on the terms and conditions of the stock awards. The expected dividend yield is determined to be 0% given that we have never declared or paid cash dividends on our common stock and do not anticipate paying such cash dividends. The risk-free interest rate is based upon U.S. Treasury securities with remaining terms similar to the expected term of the share-based awards.

Shipping and Handling Expenses

Shipping and handling expenses are included in cost of product revenue.

Research and Development

Research and development expenses include personnel expenses, contractor fees, facilities-related costs, material costs, and license fees. Expenditures relating to research and development are expensed in the period incurred.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Advertising Costs

Advertising costs are expensed as incurred. Advertising costs were \$36 million, \$53 million, and \$48 million in 2023, 2022, and 2021, respectively.

Restructuring

We measure and accrue liabilities associated with employee separation costs, which primarily consist of severance pay and other separation costs such as outplacement services and benefits, at fair value as of the date the plan is approved and when such costs are reasonably estimable. The fair value measurement of restructuring related liabilities requires certain assumptions and estimates to be made, such as the retention period of certain employees. It is our policy to use the best estimates based on facts and circumstances available at the time of measurement, review the assumptions and estimates periodically, and adjust the liabilities when necessary.

Income Taxes

The provision for income taxes is computed using the asset and liability method, under which deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities, and for the expected future tax benefit to be derived from tax loss and credit carryforwards. Deferred tax assets and liabilities are determined using the enacted tax rates in effect for the years in which those tax assets are expected to be realized. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the provision for income taxes in the period that includes the enactment date.

Deferred tax assets are regularly assessed to determine the likelihood they will be recovered from future taxable income. A valuation allowance is established when we believe it is more likely than not the future realization of all or some of a deferred tax asset will not be achieved. In evaluating the ability to recover deferred tax assets within the jurisdiction which they arise, we consider all available positive and negative evidence. Factors reviewed include the cumulative pre-tax book income for the past three years, scheduled reversals of deferred tax liabilities, history of earnings and reliable forecasting, projections of pre-tax book income over the foreseeable future, and the impact of any feasible and prudent tax planning strategies.

The impact of a tax position is recognized in the consolidated financial statements only if that position is more likely than not of being sustained upon examination by taxing authorities, based on the technical merits of the position. Any interest and penalties related to uncertain tax positions will be reflected in income tax expense.

2. REVENUE

Our revenue is generated from the sale of products and services. Product revenue consists of sales of instruments and consumables used in genetic analysis. Service and other revenue consists of revenue generated from genotyping and sequencing services, instrument service contracts, development and licensing agreements, and cancer detection testing services related to the GRAIL business.

Revenue by Source

<i>In millions</i>	2023			2022			2021		
	Sequencing	Microarray	Total	Sequencing	Microarray	Total	Sequencing	Microarray	Total
Consumables	\$ 2,790	\$ 293	\$ 3,083	\$ 2,919	\$ 306	\$ 3,225	\$ 2,911	\$ 306	\$ 3,217
Instruments	685	19	704	709	19	728	734	17	751
Total product revenue	3,475	312	3,787	3,628	325	3,953	3,645	323	3,968
Service and other revenue	637	80	717	543	88	631	464	94	558
Total revenue	\$ 4,112	\$ 392	\$ 4,504	\$ 4,171	\$ 413	\$ 4,584	\$ 4,109	\$ 417	\$ 4,526

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Revenue by Geographic Area

<i>Based on region of destination (in millions)</i>	2023	2022 ⁽¹⁾	2021 ⁽¹⁾
Americas ⁽²⁾	\$ 2,521	\$ 2,479	\$ 2,358
Europe	1,140	1,089	1,149
Greater China ⁽³⁾	384	472	502
Asia-Pacific, Middle East and Africa ⁽⁴⁾	459	544	517
Total revenue	\$ 4,504	\$ 4,584	\$ 4,526

(1) We implemented a new global commercial structure in Q1 2023 to improve operating efficiencies and better align with local markets. We integrated Asia-Pacific and Japan with emerging markets across the Middle East, Africa, Turkey, and Commonwealth of Independent States (CIS). Beginning in Q1 2023, and going forward, we will report regional results for the following regions: Americas, Europe, Greater China, and Asia-Pacific, Middle East and Africa (AMEA). Prior period amounts have been reclassified to conform to this new presentation.

(2) Americas revenue included United States revenue of \$2,359 million, \$2,290 million, and \$2,195 million in 2023, 2022, and 2021, respectively.

(3) Region includes revenue from China, Taiwan, and Hong Kong.

(4) Region includes revenue from Russia and Turkey.

Performance Obligations

We regularly enter into contracts with multiple performance obligations. These contracts are believed to be firm as of the balance sheet date. However, we may allow customers to make product substitutions as we launch new products. The timing of shipments depends on several factors, including agreed upon shipping schedules, which may span multiple quarters. Most performance obligations are generally satisfied within a short time frame, approximately three to six months, after the contract execution date. As of December 31, 2023, the aggregate amount of the transaction price allocated to remaining performance obligations was \$653 million, of which approximately 82% is expected to be converted to revenue in 2024, approximately 13% in the following twelve months, and the remainder thereafter.

Contract Assets and Liabilities

Contract assets, which consist of revenue recognized and performance obligations satisfied or partially satisfied in advance of customer billing, as of December 31, 2023 and January 1, 2023 were \$18 million and \$17 million, respectively, all of which were short-term and recorded in prepaid expenses and other current assets.

Contract liabilities, which consist of deferred revenue and customer deposits, as of December 31, 2023 and January 1, 2023 were \$329 million and \$308 million, respectively, of which the short-term portions of \$252 million and \$245 million, respectively, were recorded in accrued liabilities and the remaining long-term portions were recorded in other long-term liabilities. Revenue recorded in 2023 included \$235 million of previously deferred revenue that was included in contract liabilities as of January 1, 2023.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

3. INVESTMENTS AND FAIR VALUE MEASUREMENTS

Strategic Investments

Marketable Equity Securities

Our short-term investments consist of marketable equity securities. As of December 31, 2023 and January 1, 2023, the fair value of our marketable equity securities totaled \$6 million and \$26 million, respectively.

Gains and losses recognized in other (expense) income, net on our marketable equity securities were as follows:

<i>In millions</i>	2023	2022	2021
Net (losses) recognized during the period on marketable equity securities	\$ (2)	\$ (81)	\$ (52)
Less: Net (losses) recognized during the period on marketable equity securities sold during the period	(2)	—	(89)
Net unrealized (losses) gains recognized during the period on marketable equity securities still held at the reporting date	\$ —	\$ (81)	\$ 37

Non-Marketable Equity Securities

As of both December 31, 2023 and January 1, 2023, the aggregate carrying amounts of our non-marketable equity securities without readily determinable fair values, included in other assets, were \$28 million.

Revenue recognized from transactions with our strategic investees was \$69 million, \$113 million, and \$74 million in 2023, 2022, and 2021, respectively.

Venture Funds

We invest in two venture capital investment funds (the Funds) with capital commitments of \$100 million, callable through April 2026, and up to \$150 million, callable through July 2029, respectively, of which \$4 million and up to \$71 million, respectively, remained callable as of December 31, 2023. Our investments in the Funds are accounted for as equity-method investments. The aggregate carrying amounts of the Funds, included in other assets, were \$168 million and \$183 million as of December 31, 2023 and January 1, 2023, respectively. We recorded net unrealized losses of \$33 million and \$25 million in 2023 and 2022, respectively, and a net unrealized gain of \$55 million in 2021, in other (expense) income, net.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Fair Value Measurements

The following table presents the hierarchy for assets and liabilities measured at fair value on a recurring basis:

<i>In millions</i>	December 31, 2023				January 1, 2023			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Money market funds (cash equivalents)	\$ 774	\$ —	\$ —	\$ 774	\$ 1,642	\$ —	\$ —	\$ 1,642
Marketable equity securities	6	—	—	6	26	—	—	26
Helix contingent value right	—	—	68	68	—	—	58	58
Deferred compensation plan assets	—	61	—	61	—	52	—	52
Total assets measured at fair value	<u>\$ 780</u>	<u>\$ 61</u>	<u>\$ 68</u>	<u>\$ 909</u>	<u>\$ 1,668</u>	<u>\$ 52</u>	<u>\$ 58</u>	<u>\$ 1,778</u>
Liabilities:								
Contingent consideration liabilities	\$ —	\$ —	\$ 387	\$ 387	\$ —	\$ —	\$ 412	\$ 412
Deferred compensation plan liability	—	59	—	59	—	51	—	51
Total liabilities measured at fair value	<u>\$ —</u>	<u>\$ 59</u>	<u>\$ 387</u>	<u>\$ 446</u>	<u>\$ —</u>	<u>\$ 51</u>	<u>\$ 412</u>	<u>\$ 463</u>

Our marketable equity securities are measured at fair value based on quoted trade prices in active markets.

Our deferred compensation plan assets consist primarily of investments in life insurance contracts carried at cash surrender value, which reflects the net asset value of the underlying publicly traded mutual funds. We perform control procedures to corroborate the fair value of our holdings, including comparing valuations obtained from our investment service provider to valuations reported by our asset custodians, validating pricing sources and models, and reviewing key model inputs, if necessary.

Helix Contingent Value Right

In conjunction with the deconsolidation of Helix Holdings I, LLC (Helix) in April 2019, we received a contingent value right with a 7-year term that entitles us to consideration dependent upon the outcome of Helix's future financing and/or liquidity events. We elected the fair value option to measure the contingent value right received from Helix. The fair value of the contingent value right, included in other assets, is derived using a Monte Carlo simulation. Estimates and assumptions used in the Monte Carlo simulation include probabilities related to the timing and outcome of future financing and/or liquidity events, assumptions regarding collectability and volatility, and an estimated equity value of Helix. These unobservable inputs represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring fair value.

Changes in the fair value of the Helix contingent value right, included in other (expense) income, net were as follows:

<i>In millions</i>		
Balance as of January 3, 2021		\$ 35
Change in estimated fair value		30
Balance as of January 2, 2022		65
Change in estimated fair value		(7)
Balance as of January 1, 2023		58
Change in estimated fair value		10
Balance as of December 31, 2023		<u>\$ 68</u>

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Contingent Consideration Liabilities

We reassess the fair value of contingent consideration related to acquisitions on a quarterly basis. Changes in the fair value of contingent consideration subsequent to the acquisition date are recognized in selling, general and administrative expense. The contingent value rights issued as part of the GRAIL acquisition entitle the holders to receive future cash payments on a quarterly basis (Covered Revenue Payments) representing a pro rata portion of certain GRAIL-related revenues (Covered Revenues) each year for a 12-year period. As defined in the [Contingent Value Rights Agreement](#), this will reflect a 2.5% payment right to the first \$1 billion of revenue each year for 12 years. Revenue above \$1 billion each year will be subject to a 9% contingent payment right during this same period. Covered Revenues for the period Q4 2022 through Q3 2023 were \$85 million in aggregate and Covered Revenues for the period Q4 2021 through Q3 2022 were \$42 million in aggregate, driven primarily by sales of GRAIL's Galleri test. Covered Revenue Payments relating to such periods were approximately \$803,000 and \$396,000 in 2023 and 2022, respectively. Pursuant to the Contingent Value Rights Agreement, a portion of the Covered Revenue Payments in 2022 were applied to reimburse us for certain expenses. We use a Monte Carlo simulation to estimate the fair value of contingent consideration related to the GRAIL acquisition. Estimates and assumptions used in the Monte Carlo simulation include forecasted revenues for GRAIL, a revenue risk premium, a revenue volatility estimate, an operational leverage ratio and a counterparty credit spread. These unobservable inputs represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring fair value. The fair value of our contingent consideration liability related to GRAIL was \$387 million and \$412 million as of December 31, 2023 and January 1, 2023, respectively, of which \$385 million and \$411 million, respectively, was included in other long-term liabilities, with the remaining balances included in accrued liabilities.

Changes in the estimated fair value of our contingent consideration liabilities were as follows:

<i>In millions</i>	
Balance as of January 3, 2021	\$ —
Acquisition of GRAIL	762
Other acquisition	14
Measurement period adjustment related to GRAIL acquisition	(5)
Cash payments	(15)
Exchange of GRAIL contingent value rights	(145)
Change in estimated fair value	4
Balance as of January 2, 2022	615
Acquisition	2
Change in estimated fair value	(205)
Balance as of January 1, 2023	412
Change in estimated fair value	(24)
Cash payments	(1)
Balance as of December 31, 2023	<u>\$ 387</u>

In December 2021, we exchanged approximately 73 million contingent value rights, that were issued as part of the GRAIL acquisition, for an aggregate cash payment of \$57 million and the issuance of \$2 million in shares of our common stock. As a result of the exchange, we recognized a gain of \$86 million in other (expense) income, net in 2021, which represented the difference between the fair value of the contingent consideration liability for the contingent value rights exchanged of \$145 million and the total consideration transferred of \$59 million.

We recorded a contingent consideration liability of \$14 million as a result of an acquisition completed in Q2 2021. The acquisition-date fair value of the contingent consideration was derived using the income approach. Assumptions used to estimate the liability included the probability of achieving certain milestones and a discount rate. These unobservable inputs represented a Level 3 measurement because they were supported by little or no market activity and reflected our own assumptions in measuring fair value. We recorded an expense of \$1 million in selling, general and administrative expense in 2021 due to the change in estimated fair value of the contingent consideration and made a payment of \$15 million in Q4 2021 upon achievement of the milestones.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

4. ACQUISITIONS, GOODWILL AND INTANGIBLE ASSETS

Acquisition of GRAIL, Inc.

On August 18, 2021, we completed our acquisition of GRAIL, a healthcare company focused on early detection of multiple cancers. The acquisition is subject to ongoing legal proceedings and, currently, GRAIL must be held and operated separately and independently from Illumina pursuant to the transitional measures ordered by the European Commission in the EC Divestment Decision, following the prohibition of our acquisition of GRAIL on September 6, 2022. Refer to note “[8. Legal Proceedings](#)” for further details. As a result of the acquisition, GRAIL stockholders received as consideration (i) cash, (ii) shares of Illumina common stock and (iii) at their election, either a contingent value right or additional shares of Illumina common stock. We issued 9.8 million common shares as part of the consideration. GRAIL is a separate reportable segment. We have included the financial results of GRAIL in the consolidated financial statements from the date of acquisition. On December 17, 2023, we announced that we will divest GRAIL.

The total purchase price consisted of the following:

<i>In millions</i>	As Adjusted
Cash	\$ 2,862
Fair value of common stock issued	4,975
Fair value of contingent consideration	757
Fair value of previously held investment	1,149
Settlement of preexisting relationships	2
Total purchase price	<u>\$ 9,745</u>

Prior to the acquisition, we owned a 12% interest in GRAIL. Authoritative guidance on accounting for business combinations requires that an acquirer remeasure its previously held equity investment in the acquiree at its acquisition-date fair value and recognize the resulting gain or loss in earnings. We remeasured our previously held equity investment to its fair value, as of the date of acquisition, based on the fair value of total consideration transferred and a discount for lack of control. Estimates and assumptions used in the remeasurement represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring the fair value. As a result of the remeasurement, we valued our previously held equity investment in GRAIL at \$1.1 billion and recognized a gain of \$899 million, included in other (expense) income, net, in 2021.

In connection with the acquisition, we accelerated the vesting of certain outstanding and unvested equity awards of GRAIL employees. Approximately \$69 million was included in the purchase price related to the fair value of accelerated equity awards attributable to the pre-combination period, with the fair value attributable to the post-combination period of \$615 million included in share-based compensation expense in 2021. In addition, we issued Illumina equity awards to GRAIL employees in exchange for any of their remaining outstanding and unvested GRAIL equity awards (the “replacement awards”) at acquisition. The replacement awards consist of restricted stock units and performance stock options. The terms of the replacement awards are substantially similar to the former GRAIL equity awards for which they were exchanged. The fair value of the replacement awards was \$48 million, all of which is attributable to post-combination service, and will be recognized as share-based compensation expense over the remaining vesting period subsequent to the acquisition. The weighted-average acquisition-date fair value of the replacement performance stock options was determined using the Black-Scholes option pricing model. Refer to note “[6. Stockholders' Equity](#)” for more information.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We finalized the allocation of the purchase price in August 2022. The fair values of assets acquired and liabilities assumed were:

<i>In millions</i>	As Initially Reported	Measurement Period Adjustments	As Adjusted
Cash and cash equivalents	\$ 571	\$ —	\$ 571
Property and equipment	89	—	89
Operating lease right-of-use assets	121	—	121
Goodwill	6,082	9	6,091
Intangible assets	3,180	(60)	3,120
Other current and noncurrent assets	35	—	35
Deferred tax liability	(82)	46	(36)
Long-term lease liabilities	(97)	—	(97)
Other current and noncurrent liabilities	(148)	(1)	(149)
Total net assets acquired	<u>\$ 9,751</u>	<u>\$ (6)</u>	<u>\$ 9,745</u>

We recorded a measurement period adjustment in Q3 2022 to decrease goodwill and increase deferred tax assets by \$6 million, as a result of finalizing GRAIL's U.S. tax returns. In Q4 2021, we recorded measurement period adjustments to decrease intangible assets, specifically, developed technology, as a result of revised future cash flow estimates and to decrease deferred tax liability as a result of changes in net operating loss estimates from the initial purchase price allocation. These measurement period adjustments were made to reflect facts and circumstances that existed as of the acquisition date. The measurement period adjustment related to the developed technology intangible asset would have resulted in an insignificant decrease in amortization expense recorded in Q3 2021. The measurement period adjustments were recorded in our consolidated financial statements as of and for the years ended 2022 and 2021, as appropriate. The goodwill recognized was assigned to the GRAIL segment.

The fair values assigned to identifiable intangible assets acquired were as follows:

<i>In millions, except years</i>	Fair Value (as adjusted)	Estimated Useful Life
Developed technology	\$ 2,410	18
Trade name	40	9
In-process research and development (IPR&D)	670	Indefinite
Total intangible assets	<u>\$ 3,120</u>	

The fair values of the developed technology, trade name and IPR&D were estimated using an income approach. Under the income approach, an intangible asset's fair value is equal to the present value of future economic benefits to be derived from ownership of the asset. The estimated fair values were developed by discounting future net cash flows to their present value at market-based rates of return and inclusive of an assumption for technology obsolescence. The useful lives of the intangible assets for amortization purposes were determined by considering the period of expected cash flows used to measure the fair values of the intangible assets adjusted as appropriate for entity-specific factors including legal, regulatory, contractual, competitive, economic and other factors that may limit the useful life. The developed technology and trade name assets are amortized on a straight-line basis over their estimated useful lives. As of December 31, 2023, the research and development project had not been completed or abandoned and, therefore, the IPR&D intangible asset is not currently subject to amortization.

The transaction costs associated with the acquisition of GRAIL, excluding any Continuation Payments paid to GRAIL prior to the close of the acquisition, consisted primarily of legal, regulatory and financial advisory fees of approximately \$156 million, which were expensed as incurred as selling, general and administrative expense in 2021.

Prior to the acquisition, we were required to make monthly cash payments to GRAIL of \$35 million (the Continuation Payments) through the earlier of the consummation of the acquisition or termination of the GRAIL Merger Agreement, subject to certain exceptions. We made Continuation Payments to GRAIL totaling \$245 million in 2021, which were

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

recorded as selling, general and administrative expense. Subsequent to the acquisition, we did not make any additional Continuation Payments.

Goodwill

In millions

Balance as of January 2, 2022	\$	7,113
Impairment		(3,914)
Acquisition		45
Measurement period adjustments		(5)
Balance as of January 1, 2023		<u>3,239</u>
Impairment		(712)
Acquisition		18
Balance as of December 31, 2023	<u>\$</u>	<u>2,545</u>

2023 Impairment of Goodwill

We test goodwill for impairment annually, as of May, or more frequently if events or circumstances indicate it is more likely than not that the fair value of a reporting unit is less than its carrying amount. We performed our annual impairment test in Q2 2023, as of May 2023. We performed a quantitative assessment for our two reporting units: Core Illumina and GRAIL. No impairment was recorded for either Core Illumina or GRAIL in Q2 2023.

In Q3 2023, we concluded the sustained decrease in the Company's stock price and overall market capitalization during the quarter was a triggering event indicating the fair value of a reporting unit might be less than its carrying amount and that an interim goodwill and intangible impairment test was required.

Based on our interim assessment, we concluded that our GRAIL reporting unit's carrying value exceeded its estimated fair value. As a result, we recorded \$712 million of goodwill impairment related to our GRAIL reporting unit in Q3 2023, primarily due to a decrease in the company's consolidated market capitalization and a higher discount rate selected for the fair value calculation of the GRAIL reporting unit. No impairment was recorded for our Core Illumina reporting unit, noting its fair value exceeded its carrying value.

We performed our impairment test using a combination of an income and a market approach to determine the fair value of each reporting unit. The income approach utilized the estimated discounted cash flows for each reporting unit, while the market approach utilized comparable company information. Estimates and assumptions used in the income approach included projected cash flows and a discount rate for each reporting unit. Discount rates were determined using a weighted average cost of capital for risk factors specific to each reporting unit and other market and industry data. For GRAIL, the selected discount rate was 24.0%. The estimates and assumptions used in our assessment represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring fair value. The assumptions used are inherently subject to uncertainty and we note that small changes in these assumptions could have a significant impact on the concluded value. In order to further validate the reasonableness of the fair values concluded for our reporting units, a reconciliation to market capitalization was performed by estimating a reasonable implied control premium and other market factors.

In conjunction with the Q3 2023 interim goodwill impairment test, we also evaluated the in-process research and development (IPR&D) asset assigned to the GRAIL reporting unit for potential impairment. We performed our impairment test by comparing the carrying value of the IPR&D asset to its estimated fair value, which was determined by the income approach, using a discounted cash flow model. Estimates and assumptions used in the income approach, which represent a Level 3 measurement, included projected cash flows and a selected discount rate of 19.0%. Based on our Q3 2023 impairment test, the carrying value of the GRAIL IPR&D asset exceeded its estimated fair value and we recorded an impairment of \$109 million in Q3 2023, primarily due to a decrease in projected cash flows and a higher discount rate selected for the fair value calculation of the GRAIL IPR&D asset. As of December 31, 2023, the carrying value of the GRAIL IPR&D asset was \$561 million. We also performed a recoverability test for the definite-lived intangible assets assigned to GRAIL, which includes developed technology and trade name, noting no impairment. No impairment was noted for Core Illumina definite-lived intangible assets.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In Q4 2023, we concluded, among other events, that our formal announcement, in December 2023, to divest GRAIL represented a triggering event that required an additional interim goodwill and intangible impairment test be performed. As a result of the assessment, no impairment was recorded for either Core Illumina or GRAIL in Q4 2023. The fair values of GRAIL and Core Illumina exceeded their carrying values by approximately \$950 million and \$19 billion, respectively. For GRAIL, the selected discount rate used in the Q4 2023 impairment test was 23%. An increase of 100 basis points to the selected discount rate would still have resulted in no impairment for the GRAIL segment. As of December 31, 2023, remaining goodwill allocated to GRAIL was \$1,466 million. Changes in our future operating results, cash flows, share price, market capitalization or discount rates used when conducting future goodwill impairment tests could affect the estimated fair values of our reporting units and may result in additional impairment charges in the future. We will continue to monitor events and circumstances which may suggest that interim impairment indicators are present prior to our next annual impairment test. We also performed a recoverability test for the definite-lived intangible assets assigned to GRAIL in Q4 2023, noting no impairment. Additionally, no impairment was noted for Core Illumina definite-lived intangible assets.

2022 Impairment of Goodwill

On July 13, 2022, the EU General Court ruled that the European Commission has jurisdiction under the EU Merger Regulation to review our acquisition of GRAIL. Additionally, on September 6, 2022, the European Commission issued its decision prohibiting the acquisition. Refer to note “8. Legal Proceedings” for additional details. These decisions, along with a continued and significant decrease in the Company’s stock price and market capitalization, required us to perform an interim goodwill and intangible asset impairment test in Q3 2022.

Based on our interim analysis, we concluded that our GRAIL reporting unit’s carrying value exceeded its estimated fair value. As a result, we recorded \$3,914 million of goodwill impairment related to our GRAIL reporting unit in Q3 2022, primarily due to the negative impact of current capital market conditions and a higher discount rate selected for the fair value calculation of the GRAIL reporting unit. No impairment was recorded for our Core Illumina reporting unit, noting its fair value exceeded its carrying value by more than \$30 billion.

We performed our interim goodwill impairment test using a combination of both an income and a market approach to determine the fair value of each reporting unit. The income approach utilized the estimated discounted cash flows for each reporting unit while the market approach utilized comparable company information. Estimates and assumptions used in the income approach included projected cash flows for both the GRAIL and Core Illumina reporting units and a discount rate for each reporting unit. Discount rates were determined using a weighted average cost of capital for risk factors specific to each reporting unit and other market and industry data. For the GRAIL reporting unit, the discount rate selected was 22.0%. The estimates and assumptions used in our assessment represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring fair value. In order to further validate the reasonableness of the fair values concluded for our reporting units, a reconciliation to market capitalization was performed by estimating a reasonable implied control premium and other market factors.

In conjunction with the interim goodwill impairment test in Q3 2022, we also evaluated the IPR&D intangible asset, assigned to the GRAIL reporting unit, for potential impairment. We performed our interim impairment test by comparing the carrying value of the IPR&D intangible asset to its estimated fair value, which was determined by the income approach, using a discounted cash flow model. Estimates and assumptions used in the income approach included projected cash flows and a discount rate. These estimates and assumptions represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring fair value. Based on our interim impairment test, the carrying value of the IPR&D intangible asset did not exceed its estimated fair value. As a result, no impairment for the IPR&D intangible asset was recorded. We also performed a recoverability test for the definite-lived intangible assets assigned to the GRAIL reporting unit, which includes developed technology and trade name, noting no impairment. Additionally, no impairment was noted for the definite-lived intangible assets assigned to our Core Illumina reporting unit.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Intangible Assets

<i>In millions</i>	December 31, 2023				January 1, 2023		
	Gross Carrying Amount	Accumulated Amortization	Impairment	Intangible Assets, Net	Gross Carrying Amount	Accumulated Amortization	Intangible Assets, Net
Developed technologies	\$ 2,807	\$ (585)	\$ —	\$ 2,222	\$ 2,812	\$ (449)	\$ 2,363
Licensed technologies	274	(133)	—	141	274	(105)	169
Trade name	43	(14)	—	29	44	(10)	34
Customer relationships	14	(13)	—	1	31	(29)	2
License agreements	14	(13)	—	1	15	(14)	1
Database	12	(3)	—	9	12	(1)	11
Total finite-lived intangible assets, net	<u>3,164</u>	<u>(761)</u>	<u>—</u>	<u>2,403</u>	<u>3,188</u>	<u>(608)</u>	<u>2,580</u>
In-process research and development (IPR&D)	705	—	(115)	590	705	—	705
Total intangible assets, net	<u>\$ 3,869</u>	<u>\$ (761)</u>	<u>\$ (115)</u>	<u>\$ 2,993</u>	<u>\$ 3,893</u>	<u>\$ (608)</u>	<u>\$ 3,285</u>

As a result of an acquisition in Q4 2023, we recorded a developed technology intangible asset of \$19 million, with a useful life of 10 years. We are still finalizing the allocation of the purchase price as additional information is received to complete our analysis. We expect to finalize the valuation as soon as practicable, but no later than one year after the acquisition date. As a result of an acquisition in Q2 2022, we recorded a developed technology intangible asset of \$23 million, with a useful life of 7 years, and a database intangible asset of \$12 million, with a useful life of 7 years. We finalized the allocation of the purchase price in Q2 2023, with no material adjustments to our preliminary purchase price allocation. In addition, we recorded a licensed technology intangible asset of \$180 million, with a useful life of 6.5 years, as a result of our litigation settlement with BGI in Q3 2022. Refer to note [“8. Legal Proceedings”](#) for additional details.

As a result of an acquisition completed in Q2 2021, we recorded an IPR&D intangible asset of \$35 million, with an indefinite useful life. As of December 31, 2023, the research and development project had not been completed or abandoned and, therefore, the IPR&D intangible asset is not currently subject to amortization. During Q4 2023, we evaluated the IPR&D intangible asset for potential impairment and recorded an impairment of \$6 million.

The estimated future annual amortization of finite-lived intangible assets is shown in the following table. Actual amortization expense to be reported in future periods could differ from these estimates as a result of acquisitions, divestitures, and asset impairments, among other factors.

<i>In millions</i>	Estimated Annual Amortization
2024	\$ 197
2025	197
2026	185
2027	183
2028	180
Thereafter	1,461
Total	<u>\$ 2,403</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

5. DEBT AND OTHER COMMITMENTS

Summary of Term Debt Obligations

<i>In millions</i>	December 31, 2023	January 1, 2023
Principal amount of 2031 Term Notes outstanding	\$ 500	\$ 500
Principal amount of 2027 Term Notes outstanding	500	500
Principal amount of 2025 Term Notes outstanding	500	500
Principal amount of 2023 Term Notes outstanding	—	500
Unamortized discounts and debt issuance costs	(11)	(13)
Net carrying amount of term notes	1,489	1,987
Less: current portion	—	(500)
Term notes, non-current	\$ 1,489	\$ 1,487
Fair value of term notes outstanding (Level 2)	\$ 1,440	\$ 1,913

Interest expense recognized on our term notes, which included amortization of debt discounts and issuance costs, was \$74 million, \$21 million and \$14 million in 2023, 2022 and 2021, respectively.

0.550% Term Notes due 2023 (2023 Term Notes) and 2.550% Term Notes due 2031 (2031 Term Notes)

In March 2021, we issued \$500 million aggregate principal amount of 2023 Term Notes and \$500 million aggregate principal amount of 2031 Term Notes. We received net proceeds from the issuance of \$992 million, after deducting discounts and debt issuance costs. The 2023 Term Notes matured and were repaid in cash on March 23, 2023.

The 2031 Term Notes, which mature on March 23, 2031, accrue interest at a rate of 2.550% per annum, payable semi-annually on March 23 and September 23 of each year, beginning on September 23, 2021. We may redeem for cash all or any portion of the 2031 Term Notes, at our option, at any time prior to maturity. Prior to December 23, 2030, the notes are redeemable at make-whole premium redemption prices as defined in the applicable forms of note. After December 23, 2030, the notes are redeemable at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus any accrued and unpaid interest up to, but excluding, the redemption date.

5.800% Term Notes due 2025 (2025 Term Notes) and 5.750% Term Notes due 2027 (2027 Term Notes)

In December 2022, we issued \$500 million aggregate principal amount of 2025 Term Notes and \$500 million aggregate principal amount of 2027 Term Notes. We received net proceeds from the issuance of \$991 million, after deducting discounts and debt issuance costs. The 2025 Term Notes, which mature on December 12, 2025, and the 2027 Term Notes, which mature on December 13, 2027, accrue interest at a rate of 5.800% and 5.750% per annum, respectively, payable semi-annually. Interest for the 2025 Term Notes is payable on June 12 and December 12 of each year, beginning on June 12, 2023. Interest for the 2027 Term Notes is payable on June 13 and December 13 of each year, beginning on June 13, 2023.

We may redeem for cash all or any portion of the 2025 or 2027 Term Notes, at our option, at any time prior to maturity. Prior to November 12, 2025 for the 2025 Term Notes and prior to November 13, 2027 for the 2027 Term Notes, the notes are redeemable at make-whole premium redemption prices as defined in the applicable forms of note. After November 12, 2025 for the 2025 Term Notes and after November 13, 2027 for the 2027 Term Notes, the notes are redeemable at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus any accrued and unpaid interest up to, but excluding, the redemption date.

0% Convertible Senior Notes due 2023 (2023 Convertible Notes)

In August 2018, we issued \$750 million aggregate principal amount of 2023 Convertible Notes. The notes were convertible into cash, shares of common stock or a combination of cash and shares of common stock, at our election, based on conversion rates as defined in the indenture. The 2023 Convertible Notes matured on August 15, 2023, at which time the principal was repaid in cash. We did not issue any shares of common stock.

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The 2023 Convertible Notes were initially accounted for in accordance with authoritative guidance for convertible debt instruments that may be settled in cash upon conversion. The guidance required the carrying amount of the liability component to be estimated by estimating the fair value of a similar liability that does not have an associated conversion feature. Because at issuance we had no outstanding non-convertible public debt, we determined that market-traded senior, unsecured corporate bonds represented a similar liability without a conversion option. Based on market data available for publicly traded, senior, unsecured corporate bonds issued by companies in our industry, and with similar maturities to the 2023 Convertible Notes, we estimated an implied interest rate of 3.7%, assuming no conversion option. Assumptions used in the estimate represented what market participants would use in pricing the liability component, including market interest rates, credit standing, and yield curves, all of which are defined as Level 2 observable inputs. The estimated implied interest rate was applied to the 2023 Convertible Notes, which resulted in a fair value of the liability component in aggregate of \$624 million upon issuance, calculated as the present value of implied future payments based on the \$750 million aggregate principal amount. The \$126 million difference (\$93 million, net of tax) between the aggregate principal amount of \$750 million and the estimated fair value of the liability component was recorded in additional paid-in capital as the 2023 Convertible Notes were not considered redeemable. As a policy election under applicable guidance related to the calculation of diluted (loss) earnings per share, we had elected the combination settlement method as our stated settlement policy and applied the treasury stock method in the calculation of the potential dilutive impact of the 2023 Convertible Notes on (loss) earnings per share each period.

As of January 3, 2022, we adopted ASU 2020-06, which removed the requirement to separate the embedded conversion feature from the notes and requires the notes to be accounted for as a single liability measured at amortized cost. Accordingly, we reclassified the unamortized debt discount from additional paid-in capital to convertible senior notes in the consolidated balance sheets on January 3, 2022. This resulted in an increase to our convertible senior notes and retained earnings of \$43 million and \$61 million, respectively, and a decrease to our deferred tax liabilities, included in other long-term liabilities, and additional paid-in capital of \$11 million and \$93 million, respectively.

Interest expense recognized on the 2023 Convertible Notes, which included amortization of debt issuance costs, was \$2 million and \$3 million in 2023 and 2022, respectively. Interest expense recognized on the 2023 Convertible Notes in 2021 was \$29 million, which included amortization of the original debt discount and debt issuance costs.

Credit Agreement

On January 4, 2023, we entered into a new credit agreement (the Credit Agreement), which provides us with a \$750 million senior unsecured five-year revolving credit facility, including a \$40 million sublimit for swingline borrowings and a \$50 million sublimit for letters of credit (the Credit Facility). The proceeds of the loans under the Credit Facility may be used to finance working capital needs and for general corporate purposes. The credit agreement dated as of March 8, 2021 and the commitments thereunder were terminated as of January 4, 2023.

The Credit Facility matures, and all amounts outstanding thereunder become due and payable in full, on January 4, 2028, subject to two one-year extensions at our option, the consent of the extending lenders and certain other conditions. We may prepay amounts borrowed and terminate commitments under the Credit Facility at any time without premium or penalty. As of December 31, 2023, there were no borrowings or letters of credit outstanding under the Credit Facility and we were in compliance with all financial and operating covenants.

Any loans under the Credit Facility will have a variable interest rate based on either the term secured overnight financing rate or the alternate base rate, plus an applicable rate that varies with the Company's debt rating and, in the case of loans bearing interest based on the term secured overnight financing rate, a credit spread adjustment equal to 0.10% per annum. The Credit Agreement includes an option for us to elect to increase the commitments under the Credit Facility or to enter into one or more tranches of term loans in the aggregate principal amount of up to \$250 million, subject to the consent of the lenders providing the additional commitments or term loans, as applicable, and certain other conditions.

The Credit Agreement contains financial and operating covenants. Pursuant to the Credit Agreement, we are required to maintain a ratio of total debt to adjusted annual earnings before interest, taxes, depreciation and amortization (EBITDA), calculated based on the four consecutive fiscal quarters ending with the most recent fiscal quarter, of not greater than 3.50 to 1.00 as of the end of each fiscal quarter. Upon the consummation of any Qualified Acquisition (as defined in the Credit Agreement) and us providing notice to the Administrative Agent, the ratio increases to 4.00 to

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1.00 for the fiscal quarter in which the acquisition is consummated and the three consecutive fiscal quarters thereafter. The operating covenants include, among other things, limitations on (i) the incurrence of indebtedness by our subsidiaries, (ii) liens on our and our subsidiaries assets, and (iii) certain fundamental changes and the disposition of assets by us and our subsidiaries. The Credit Agreement contains other customary covenants, representations and warranties, and events of default.

Leases

As of December 31, 2023, the maturities of our operating lease liabilities were as follows:

<i>In millions</i>	
2024	\$ 117
2025	117
2026	115
2027	107
2028	89
Thereafter	385
Total remaining lease payments ⁽¹⁾	930
Less: imputed interest	(157)
Total operating lease liabilities	773
Less: current portion	(86)
Long-term operating lease liabilities	\$ 687
Weighted-average remaining lease term	8.8 years
Weighted-average discount rate	4.2 %

⁽¹⁾ Total remaining lease payments exclude \$60 million of legally binding minimum lease payments for leases signed but not yet commenced.

The components of our lease costs were as follows:

<i>In millions</i>	2023	2022	2021
Operating lease costs	\$ 116	\$ 112	\$ 99
Sublease income	(20)	(20)	(16)
Variable lease costs ⁽¹⁾	27	20	21
Total lease costs	\$ 123	\$ 112	\$ 104

⁽¹⁾ Variable lease costs include non-fixed maintenance charges and property taxes.

Purchase Obligations

In the normal course of business, we enter into agreements to purchase goods or services that are not cancelable without penalty, primarily related to licensing and supply arrangements. For those agreements with variable terms, we do not estimate the total obligation beyond any minimum quantities or pricing as of the reporting date. Licensing agreements under which we commit to minimum royalty payments, some of which are subject to adjustment, may be terminated prior to the expiration of underlying intellectual property under certain circumstances. Annual minimum payments for noncancelable purchase obligations as of December 31, 2023 totaled \$290 million, less than half of which are due within the next twelve months.

6. STOCKHOLDERS' EQUITY

The 2015 Stock and Incentive Compensation Plan (the 2015 Stock Plan) and the New Hire Stock and Incentive Plan allow for the issuance of stock options, performance stock options, restricted stock units and awards, and performance stock units. In Q2 2023, the Company's stockholders approved an amended and restated version of the 2015 Stock Plan and increased the maximum number of shares authorized for issuance by 8.0 million shares. As of December 31, 2023, approximately 8.2 million shares remained available for future grants under the 2015 Stock Plan. There is no set number of shares reserved for issuance under the New Hire Stock and Incentive Plan.

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Restricted Stock

We issue restricted stock units (RSU) and performance stock units (PSU), both of which are considered restricted stock. We grant restricted stock pursuant to the 2015 Stock Plan and satisfy such grants through the issuance of either new shares or shares from treasury stock. RSU are share awards that, upon vesting, will deliver to the holder shares of our common stock. RSU generally vest over a four-year period with equal vesting annually. We issue two different PSU awards. We issue PSU for which the number of shares issuable at the end of a three-year performance period is based on our performance relative to specified earnings per share targets and continued employment through the vesting period (EPS PSU). During 2023, we began to issue PSU with a market condition that vest based on the Company's relative total shareholder return as compared to a peer group of companies measured over a three-fiscal year performance period and continued employment through the vesting period (rTSR PSU). Depending on the actual performance over the measurement period, an rTSR PSU award recipient could receive up to 175% of the granted award.

Restricted stock activity was as follows:

<i>Units in thousands</i>	Restricted Stock Units (RSU) ⁽¹⁾	Performance Stock Units (PSU) ⁽²⁾	Weighted-Average Grant-Date Fair Value per Share	
			RSU	PSU
Outstanding at January 3, 2021	1,721	—	\$ 313.35	\$ —
Awarded	259	456	\$ 438.46	\$ 471.63
Vested	(606)	(72)	\$ 303.08	\$ 492.55
Cancelled	(244)	(56)	\$ 321.93	\$ 475.38
Outstanding at January 2, 2022	1,130	328	\$ 345.66	\$ 466.42
Awarded	1,370	(108)	\$ 302.52	\$ 479.85
Vested	(707)	(99)	\$ 341.56	\$ 492.55
Cancelled	(182)	(47)	\$ 341.14	\$ 411.78
Outstanding at January 1, 2023	1,611	74	\$ 311.23	\$ 446.74
Awarded	2,032	39	\$ 195.94	\$ 239.98
Vested	(987)	—	\$ 268.08	\$ —
Cancelled	(458)	(113)	\$ 253.52	\$ 299.98
Outstanding at December 31, 2023	2,198	—	\$ 236.32	\$ —

⁽¹⁾ In connection with the GRAIL acquisition, replacement awards of 59,000 RSU were awarded to GRAIL employees in 2021.

⁽²⁾ The number of units reflect the estimated number of shares to be issued at the end of the performance period. For rTSR PSU, the number of units reflect the estimated number of shares to be issued based on performance as of the current reporting period. As of December 31, 2023, there were approximately 129,000 rTSR PSU granted. Awarded units are presented net of performance adjustments.

Pre-tax intrinsic value and fair value of vested restricted stock was as follows:

<i>In millions</i>	2023	2022	2021
Pre-tax intrinsic value of outstanding restricted stock:			
RSU	\$ 306	\$ 326	\$ 430
PSU	\$ —	\$ 15	\$ 125
Fair value of restricted stock vested:			
RSU	\$ 122	\$ 162	\$ 247
PSU	\$ —	\$ 49	\$ 35

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Liability- Classified RSU

In Q1 2023, we granted RSU that were to be settled in cash if stockholder approval to increase our share reserve under the amended and restated 2015 Stock Plan was not obtained. In Q2 2023, the Company's stockholders approved an amended and restated version of the 2015 Stock Plan and increased the maximum number of shares authorized for issuance. Upon such approval, all RSU previously accounted for as liability-classified awards, approximately 557,000 RSU, were reclassified to stockholders equity and accounted for prospectively as equity awards. There were no RSU liability-classified awards outstanding as of December 31, 2023.

Stock Options

Stock option activity was as follows:

<i>Units in thousands</i>	Options	Weighted-Average Exercise Price	Performance Stock Options ⁽¹⁾	Weighted-Average Exercise Price
Outstanding at January 3, 2021	10	\$ 59.11	—	\$ —
Granted	—	\$ —	48	\$ 86.73
Exercised	(2)	\$ 20.06	(21)	\$ 86.72
Cancelled	—	\$ —	(10)	\$ 89.63
Outstanding at January 2, 2022	8	\$ 66.42	17	\$ 85.54
Granted	180	\$ 330.25	—	\$ —
Exercised	(1)	\$ 6.55	—	\$ —
Outstanding at January 1, 2023	187	\$ 319.72	17	\$ 85.54
Exercised	(8)	\$ 71.09	(1)	\$ 16.69
Cancelled	(144)	\$ 330.25	—	\$ —
Outstanding at December 31, 2023	35	\$ 330.25	16	\$ 87.74
Exercisable at December 31, 2023	9	\$ 330.25	—	\$ —

⁽¹⁾ In connection with the GRAIL acquisition, we issued replacement performance stock options to GRAIL employees in 2021. The number of units reflect awards that have been granted and for which it is assumed to be probable that the underlying performance goals will be achieved.

The aggregate intrinsic value of options outstanding as of December 31, 2023 was zero. Aggregate intrinsic value represents the product of the number of options outstanding multiplied by the difference between our closing stock price per share on the last trading day of the fiscal period, which was \$139.24 as of December 29, 2023, and the exercise price. Total intrinsic value of options exercised was \$1 million, zero, and \$1 million in 2023, 2022, and 2021, respectively. The weighted-average remaining life of options outstanding was 5.2 years as of December 31, 2023.

The aggregate intrinsic value of performance stock options outstanding as of December 31, 2023 was \$1 million. The total intrinsic value of performance stock options exercised was zero and \$6 million in 2023 and 2021, respectively. No performance stock options were exercised in 2022. Outstanding performance stock options, in general, have contractual terms of ten years from the respective grant dates.

Other Liability-Classified Awards

We grant cash-based equity incentive awards to GRAIL employees. For purposes of valuation and performance measurement of the awards, GRAIL's stand-alone value calculation, as estimated by GRAIL based on its analysis and on input from independent valuation advisors and analyses, is used. The awards generally have terms of four years and vest in four equal installments on each anniversary of the grant date, subject to continued employment through the vesting period. These awards are accounted for as liability-classified awards.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Cash-based equity incentive award activity was as follows:

<i>In millions</i>	
Outstanding at January 3, 2021	\$ —
Granted	218
Cancelled	(42)
Change in fair value	8
Outstanding at January 2, 2022	184
Granted	168
Vested and paid in cash	(41)
Cancelled	(41)
Change in fair value	23
Outstanding at January 1, 2023	293
Granted	116
Vested and paid in cash	(77)
Cancelled	(32)
Change in fair value	(8)
Outstanding at December 31, 2023	\$ 292
Estimated liability as of December 31, 2023 (included in accrued liabilities)	\$ 55

We recognized share-based compensation expense of \$95 million, \$67 million and \$11 million in 2023, 2022 and 2021, respectively. As of December 31, 2023, approximately \$237 million of total unrecognized compensation cost related to awards issued to date was expected to be recognized over a weighted-average period of approximately 2.5 years.

In connection with the acquisition of GRAIL, we assumed a performance-based award for which vesting is based on GRAIL's future revenues. The award has an aggregate potential value of up to \$78 million and expires, to the extent unvested, in August 2030. As of December 31, 2023, it was not probable that the performance conditions associated with the award will be achieved and, therefore, no share-based compensation expense, or corresponding liability, has been recognized in the consolidated financial statements to-date. We assess the probability of achieving the performance conditions associated with the award on a quarterly basis at each reporting period.

Employee Stock Purchase Plan

A total of 15.5 million shares of our common stock have been reserved for issuance under our 2000 Employee Stock Purchase Plan, or ESPP. The ESPP permits eligible employees to purchase common stock at a discount through payroll deductions during defined offering periods. The price at which stock is purchased under the ESPP is equal to 85% of the fair market value of the common stock on the first day of the offering period or purchase date, whichever is lower. The initial offering period commenced in July 2000.

Approximately 0.4 million, 0.3 million and 0.2 million shares during 2023, 2022 and 2021, respectively, were issued under the ESPP. As of December 31, 2023 and January 1, 2023, there were approximately 12.4 million and 12.8 million shares available for issuance under the ESPP, respectively.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The assumptions used for the specified reporting periods and the resulting estimates of weighted-average fair value per share for stock purchased under the ESPP were as follows:

	2023	2022	2021
Risk-free interest rate	0.78% - 5.54%	0.06% - 2.98%	0.06% - 0.12%
Expected volatility	41% - 51%	37% - 51%	37% - 47%
Expected term	0.5 - 1.1 years	0.5 - 1.0 year	0.5 - 1.0 year
Expected dividends	0%	0%	0%
Weighted-average grant-date fair value per share	\$ 49.87	\$ 50.22	\$ 134.47

Share Repurchases

We did not repurchase any shares during 2023, 2022, or 2021. As of December 31, 2023, authorizations to repurchase approximately \$15 million of our common stock remained available under the \$750 million share repurchase program authorized by our Board of Directors on February 5, 2020. The repurchases may be completed under a 10b5-1 plan or at management's discretion.

Share-Based Compensation

Share-based compensation expense, which includes expense for both equity and liability-classified awards, reported in our consolidated statements of operations was as follows:

<i>In millions</i>	2023	2022	2021
Cost of product revenue	\$ 29	\$ 26	\$ 23
Cost of service and other revenue	7	6	4
Research and development	155	153	276
Selling, general and administrative	189	181	638
Share-based compensation expense, before taxes	380	366	941
Related income tax benefits	(87)	(83)	(64)
Share-based compensation expense, net of taxes	\$ 293	\$ 283	\$ 877

In connection with the acquisition of GRAIL, we recognized share-based compensation expense of \$615 million in 2021 related to the fair value of accelerated equity awards attributable to the post-combination period, of which \$167 million was recorded in research and development expense and \$448 million in selling, general and administrative expense. We also recognized \$2 million, \$10 million and \$24 million of expense in 2023, 2022 and 2021, respectively, related to the replacement awards.

In February 2021, we modified the metrics and reduced the maximum potential payouts for our performance stock units granted in 2019 and 2020, which vested at the end of the three-year periods ended January 2, 2022 and January 1, 2023, respectively. The modifications affected 52 employees with units granted in 2019, which resulted in total incremental share-based compensation cost of approximately \$41 million, and 72 employees with units granted in 2020, which resulted in total incremental share-based compensation cost of approximately \$65 million.

As of December 31, 2023, approximately \$496 million of total unrecognized compensation cost related to restricted stock, including RSU and PSU, stock options, including performance stock options, and ESPP shares issued to date was expected to be recognized over a weighted-average period of approximately 2.3 years.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

7. SUPPLEMENTAL BALANCE SHEET AND STATEMENT OF OPERATIONS DETAILS
Accounts Receivable

<i>In millions</i>	December 31, 2023	January 1, 2023
Trade accounts receivable, gross	\$ 741	\$ 675
Allowance for credit losses	(7)	(4)
Total accounts receivable, net	<u>\$ 734</u>	<u>\$ 671</u>

Inventory

<i>In millions</i>	December 31, 2023	January 1, 2023
Raw materials	\$ 276	\$ 247
Work in process	402	386
Finished goods	30	28
Inventory, gross	708	661
Inventory reserve	(121)	(93)
Total inventory, net	<u>\$ 587</u>	<u>\$ 568</u>

Property and Equipment

<i>In millions</i>	December 31, 2023	January 1, 2023
Leasehold improvements	\$ 803	\$ 759
Machinery and equipment	684	644
Computer hardware and software	463	424
Furniture and fixtures	55	50
Buildings	44	44
Construction in progress	96	132
Total property and equipment, gross	2,145	2,053
Accumulated depreciation	(1,138)	(962)
Total property and equipment, net	<u>\$ 1,007</u>	<u>\$ 1,091</u>

Property and equipment, net included non-cash expenditures of \$12 million, \$16 million and \$17 million in 2023, 2022, and 2021, respectively, which were excluded from the consolidated statements of cash flows.

Accrued Liabilities

<i>In millions</i>	December 31, 2023	January 1, 2023
Legal contingencies ⁽¹⁾	\$ 484	\$ 473
Contract liabilities, current portion	252	245
Accrued compensation expenses ⁽²⁾	223	188
Accrued taxes payable	79	97
Operating lease liabilities, current portion	86	76
Liability-classified equity incentive awards	55	36
Other, including warranties ⁽³⁾	146	117
Total accrued liabilities	<u>\$ 1,325</u>	<u>\$ 1,232</u>

⁽¹⁾ See note "8. Legal Proceedings" for additional details.

⁽²⁾ Included employee separation costs related to restructuring activities.

⁽³⁾ See table below for changes in the reserve for product warranties.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Changes in the reserve for product warranties were as follows:

<i>In millions</i>	
Balance as of January 3, 2021	\$ 13
Additions charged to cost of product revenue	33
Repairs and replacements	(24)
Balance as of January 2, 2022	22
Additions charged to cost of product revenue	23
Repairs and replacements	(27)
Balance as of January 1, 2023	18
Additions charged to cost of product revenue	42
Repairs and replacements	(39)
Balance as of December 31, 2023	<u>\$ 21</u>

Restructuring

In Q2 2023, we implemented a cost reduction initiative that included workforce reductions, the consolidation of certain facilities and other actions to reduce expenses, all as part of a plan to realign operating expenses while maintaining focus on our innovation roadmap and sustainable long-term growth. In 2023, we recorded pre-tax restructuring charges primarily consisting of asset impairment charges related to our facilities and employee separation costs.

A summary of the pre-tax restructuring charges recorded in 2023 are as follows:

<i>In millions</i>	
Employee separation costs	\$ 48
Asset impairment charges ⁽¹⁾	100
Other costs	4
Total restructuring charges ⁽²⁾	<u>\$ 152</u>

⁽¹⁾ Primarily related to impairment of right-of-use assets and leasehold improvements for our i3 and Foster City campuses in California.

⁽²⁾ For 2023, \$122 million was recorded in SG&A expense, \$24 million in R&D expense, with the remainder recorded in cost of revenue. These restructuring activities primarily relate to our Core Illumina segment.

During 2023, we fully exited our i3 campus in San Diego, California, which resulted in a right-of-use asset impairment of \$38 million, and we exited a portion of our campus in Foster City, California, which resulted in a right-of-use asset impairment of \$21 million. These impairments were recognized in selling, general and administrative expense. The impairments were determined by comparing the fair value of the impacted right-of-use asset to the carrying value of the asset as of the impairment measurement date. The fair value of the right-of-use asset was estimated using the discounted future cash flows method, which includes estimates and assumptions for future sublease rental rates that reflect current sublease market conditions, as well as a discount rate. The estimates and assumptions used in our assessment represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring fair value. We also recorded \$16 million and \$22 million of leasehold improvement impairments related to the exits of our i3 and Foster City campuses, respectively, in 2023, recognized in selling, general and administrative expense. We continue to evaluate our options with respect to the rest of our campus in Foster City, California. As of December 31, 2023, we had remaining assets, consisting primarily of right-of-use assets and leasehold improvements, related to our Foster City campus of approximately \$136 million.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

A summary of the restructuring liability is as follows:

<i>In millions</i>	Employee Separation Costs ⁽¹⁾	Other Costs	Total
Expense recorded in 2023	\$ 48	\$ 4	\$ 52
Cash paid during 2023	(31)	(3)	(34)
Amount recorded in accrued liabilities as of YTD 2023	<u>\$ 17</u>	<u>\$ 1</u>	<u>\$ 18</u>
Estimated total restructuring costs to still be incurred	<u>\$ 8</u>	<u>\$ —</u>	<u>\$ 8</u>

⁽¹⁾ It is expected that substantially all of the employee separation related restructuring charges will be incurred and paid by the end of Q1 2024.

Other (Expense) Income, Net

<i>In millions</i>	2023	2022	2021
Gain on previously held investment in GRAIL	\$ —	\$ —	\$ 899
Gain on exchange of GRAIL contingent value rights	—	—	86
Gain (loss) on Helix contingent value right	10	(7)	30
Gain on derivative assets related to terminated acquisition	—	—	26
(Losses) gains on strategic investments, net	(40)	(122)	18
Other	1	(13)	9
Other (expense) income, net	<u>\$ (29)</u>	<u>\$ (142)</u>	<u>\$ 1,068</u>

8. LEGAL PROCEEDINGS

We are involved in various lawsuits and claims arising in the ordinary course of business, including actions with respect to intellectual property, employment, and contractual matters. In connection with these matters, we assess, on a regular basis, the probability and range of possible loss based on the developments in these matters. A liability is recorded in the consolidated financial statements if it is believed to be probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Because litigation is inherently unpredictable and unfavorable resolutions could occur, assessing contingencies is highly subjective and requires judgments about future events. We regularly review outstanding legal matters to determine the adequacy of the liabilities accrued and related disclosures in consideration of many factors, which include, but are not limited to, past history, scientific and other evidence, and the specifics and status of each matter. We may change our estimates if our assessment of the various factors changes and the amount of ultimate loss may differ from our estimates, resulting in a material effect on our business, financial condition, results of operations, and/or cash flows.

Acquisition of GRAIL

Our acquisition of GRAIL remains subject to ongoing legal and regulatory proceedings in the United States and in the European Union.

On March 30, 2021, the U.S. Federal Trade Commission (the FTC) filed an administrative complaint and a motion for a preliminary injunction in the United States District Court for the District of Columbia. In both actions, the FTC alleged that our acquisition of GRAIL would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18. We filed an answer to the FTC's complaint in federal district court on April 6, 2021, and in the administrative court on April 13, 2021. On April 20, 2021, the United States District Court for the District of Columbia granted our motion to transfer venue to the United States District Court for the Southern District of California. On May 28, 2021, the district court granted the FTC's motion to dismiss the complaint without prejudice. The administrative trial commenced on August 24, 2021. On September 1, 2022, the administrative law judge (the ALJ) ruled in favor of Illumina and found that the acquisition of GRAIL did not violate Section 7 of the Clayton Act. In the decision, the ALJ found that the FTC's

ILLUMINA, INC.**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

complaint counsel had failed to prove its prima facie case that Illumina's acquisition of GRAIL would result in harm to competition in a putative market for multi-cancer early detection (MCED) tests. The FTC's complaint counsel appealed the ALJ's decision to the full FTC on September 2, 2022. The appeal was fully briefed as of November 10, 2022, and oral argument occurred on December 13, 2022. On March 31, 2023, the FTC issued an opinion and order (the FTC Order) requiring Illumina to divest GRAIL, reversing the ALJ's ruling. On April 5, 2023, Illumina filed a petition for review of the FTC Order in the U.S. Court of Appeals for the Fifth Circuit. On April 24, 2023, the FTC granted a motion staying in its entirety the FTC Order pending resolution of Illumina's Fifth Circuit appeal. The appeal was fully briefed as of August 16, 2023, and oral argument occurred on September 12, 2023. On December 15, 2023, the Fifth Circuit issued its opinion and order, in which the court ruled that the Commission applied the incorrect standard in assessing Illumina's open offer contract, and on that basis vacated the FTC Order and remanded the case to the Commission for reconsideration of the effects of the open offer contract under the proper standard as described in the Fifth Circuit's decision, and in all other respects upheld the Commission's decision.

On April 19, 2021, the European Commission accepted a request for a referral of the GRAIL acquisition for European Union merger review, submitted by a Member State of the European Union (France), and joined by several other Member States (Belgium, Greece, Iceland, the Netherlands and Norway), under Article 22(1) of Council Regulation (EC) No 139/2004 (the EU Merger Regulation). The European Commission had never solicited referrals to take jurisdiction over an acquisition of a U.S. company that had no revenue in Europe. On April 28, 2021, we filed an action in the General Court of the European Union (the EU General Court) asking for annulment of the European Commission's assertion of jurisdiction to review the acquisition under Article 22 of the EU Merger Regulation, as the acquisition does not meet the jurisdictional criteria under the EU Merger Regulation or under the national merger control laws of any Member State of the European Union. On December 16, 2021, the EU General Court held a hearing regarding the European Commission's assertion of jurisdiction. On July 13, 2022, the EU General Court reached a decision in favor of the European Commission, holding that the European Commission has jurisdiction under the EU Merger Regulation to review the acquisition. On September 22, 2022, we filed an appeal in the Court of Justice of the European Union asking for annulment of the EU General Court's decision. On December 12, 2023, the Court of Justice of the European Union held a hearing on the appeal.

On October 29, 2021, the European Commission adopted an order imposing interim measures (the Initial Interim Measures Order). As the Initial Interim Measures Order was set to expire on November 3, 2022, the European Commission adopted a new order imposing interim measures (the New Interim Measures Order) on October 28, 2022. On December 1, 2021, we filed an action with the EU General Court asking for annulment of the Initial Interim Measures Order. The hearing of that application has been stayed pending our appeal of the judgment of the EU General Court regarding the European Commission's assertion of jurisdiction. On January 10, 2023, we filed an action with the EU General Court asking for annulment of the New Interim Measures Order. On January 20, 2023, the European Commission requested that these proceedings be stayed pending our appeal on jurisdiction. We submitted a filing indicating that we had no objections to the European Commission's request, and the EU General Court stayed the proceedings on February 21, 2023.

On September 6, 2022, the European Commission announced that it had completed its Phase II review of the acquisition of GRAIL and adopted a final decision (the Prohibition Decision), which found that, in its view, our acquisition of GRAIL was incompatible with the internal market in Europe because it results in a significant impediment to effective competition. On November 17, 2022, we filed an action with the EU General Court asking for annulment of the Prohibition Decision.

On October 12, 2023, the European Commission adopted a decision requiring us to (among other things) divest GRAIL, and replacing the interim measures set forth in the New Interim Measures Order with substantially equivalent transitional measures (the EC Divestment Decision). On December 22, 2023, we filed an action with the EU General Court seeking an annulment of the EC Divestment Decision.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

On July 12, 2023, the European Commission adopted a final decision finding that we breached the EU Merger Regulation by, in its view, acquiring the possibility to exert decisive influence over GRAIL and exerting such influence during the pendency of the European Commission's review (the Article 14(2)(b) Decision). The European Commission therefore imposed a fine pursuant to Article 14(2)(b) of the EU Merger Regulation of approximately €432 million, representing the maximum fine of 10% of our consolidated annual revenues for fiscal year 2022. We provided guarantees in October 2023 to satisfy the obligation in lieu of cash payment while we appeal the European Commission's jurisdictional decision and fine decision. The fine is accruing interest at a rate of 5.5% per annum, beginning in October 2023, while it is outstanding. As of December 31, 2023, we accrued \$484 million, including related foreign currency losses and accrued interest, included in accrued liabilities. We appealed the Article 14(2)(b) Decision on September 26, 2023.

On December 17, 2023, we announced that we will divest GRAIL.

SEC Inquiry Letter

In July 2023, we were informed that the staff of the SEC was conducting an investigation relating to Illumina and was requesting documents and communications primarily related to Illumina's acquisition of GRAIL and certain statements and disclosures concerning GRAIL, its products and its acquisition, and related to the conduct and compensation of certain members of Illumina and GRAIL management, among other things. Illumina is cooperating with the SEC in this investigation.

Derivative and Class Action Complaint

On October 17, 2023, a stockholder derivative and class action complaint captioned *Icahn Partners LP, et al. v. deSouza, et al.*, purportedly brought on behalf of Illumina and public holders of Illumina's common stock, was filed in the Delaware Court of Chancery against certain current and former directors (including our former Chief Executive Officer). We are named as a nominal defendant in the complaint. The lawsuit alleges the named directors breached their fiduciary duties by knowingly causing Illumina to unlawfully close the GRAIL acquisition, concealing material facts related to the GRAIL acquisition and making inadequate disclosures. Prior to the filing of the complaint, the purported stockholders did not make a demand that our Board of Directors pursue the claims asserted therein. The complaint seeks damages, costs and expenses, including attorney fees, the certification and consolidation of a putative class, the issuance of amended disclosures, the removal of conflicted directors and declaratory and other equitable relief. Since the lawsuit is brought in part on behalf of Illumina as a nominal defendant, the alleged damages were allegedly suffered by us.

On November 1, 2023, the defendants filed a motion to dismiss the complaint, which has not yet been briefed. On the same day, Illumina—joined by the director defendants—moved to strike portions of the complaint that contain improperly included confidential and privileged information. On January 16, 2024, the Court granted the motion to strike. On January 23, 2024, plaintiffs filed a motion seeking re-argument of the Court's order granting the motion to strike. On December 6, 2023, the plaintiffs moved to expedite the proceedings with respect to their direct claims. The director defendants opposed that motion and Illumina joined their opposition. On January 19, 2023, the court denied plaintiffs' motion to expedite. In light of the fact that the lawsuit is in an early stage, we cannot predict the ultimate outcome of the suit. We deny the allegations in the complaint and intend to vigorously defend the litigation.

Securities Class Actions

Federal Securities Class Actions. On November 11, 2023, the first of three securities class action complaints was filed against Illumina and certain of its current and former executive officers in the United States District Court for the Southern District of California. The first-filed case is captioned *Kangas v. Illumina, Inc. et al.*, the second-filed case is captioned *Roy v. Illumina, Inc. et al.*, and the third-filed case is captioned *Louisiana Sheriffs' Pension & Relief Fund v. Illumina, Inc. et al.* (collectively, the "Actions"). The complaints generally allege, among other things, that defendants made materially false and misleading statements and omitted material facts relating to Illumina's acquisition of Grail. The complaints seek unspecified damages, interest, fees, and costs. On January 9, 2024, four movants filed motions to consolidate the Actions and to appoint a lead plaintiff ("Lead Plaintiff Motions"). We expect the court to consolidate the three actions and appoint a lead plaintiff in the coming months.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

State Securities Class Actions. On February 2, 2024, the first of two additional securities class actions was filed against Illumina, certain of its officers and directors, and several other individuals and entities in the Superior Court of the State of California, County of San Mateo, captioned *Loren Scott Mar v. Illumina, et al.* and *Scott Zerzanek v. Illumina, Inc. et al.*. Both complaints generally allege, among other things, that defendants made materially false and misleading statements and omitted material facts in the November 2020 and February 2021 registration statements and prospectus relating to Illumina’s acquisition of Grail. The complaints seek unspecified damages, interest, fees, and costs.

We deny the allegations in the complaints and intend to vigorously defend the litigation. In light of the fact that the lawsuits are in an early stage, we cannot predict the ultimate outcome of the suits.

DOJ Civil Investigative Demand

On January 18, 2024, we received a civil investigative demand (CID) from the U.S. Department of Justice, requiring production of certain documents and information in the course of a False Claims Act investigation to determine whether there is or has been a violation of 31 U.S.C. § 3729. The False Claims Act investigation concerns allegations that the Company caused the submission of false claims to Medicare and other federal government programs because it misrepresented its compliance with cybersecurity requirements to the Food and Drug Administration and other federal agencies that purchase its devices. The Company is preparing its response and cooperating with the government.

BGI Genomics Co. Ltd. and its Affiliates

As previously disclosed, we were engaged in litigation in various U.S. jurisdictions with BGI Genomics Co. Ltd (BGI) and certain of its affiliates, including Complete Genomics, Inc. (CGI) since June of 2019. On July 14, 2022, we entered into a Settlement and License Agreement with BGI and CGI (the “Agreement”). Pursuant to the terms of the Agreement, we agreed to pay CGI a one time payment of \$325 million. We allocated the \$325 million payment on a relative fair value basis, resulting in \$180 million capitalized as an intangible asset in 2022 for the value of the license, which is amortized over a period of 6.5 years on a straight-line basis, \$150 million allocated to the release of past damages claimed, and a \$5 million gain for damages awarded to us. The fair value of the license was estimated using a discounted cash flow model, which included assumptions for projected revenues covered by the license, an estimated royalty rate and a discount rate. The fair value of the past damages claimed was estimated based on applicable historical revenues and an estimated royalty rate. These inputs represent a Level 3 measurement because they are supported by little or no market activity and reflect our own assumptions in measuring fair value.

9. INCOME TAXES

(Loss) income before income taxes summarized by region was as follows:

<i>In millions</i>	2023	2022	2021
United States	\$ (1,735)	\$ (4,942)	\$ (115)
Foreign	618	606	999
Total (loss) income before income taxes	<u>\$ (1,117)</u>	<u>\$ (4,336)</u>	<u>\$ 884</u>

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The provision for income taxes consisted of the following:

<i>In millions</i>	2023	2022	2021
Current:			
Federal	\$ (5)	\$ (11)	\$ 54
State	6	27	37
Foreign	77	75	107
Total current provision	78	91	198
Deferred:			
Federal	(13)	40	(50)
State	(26)	(47)	(23)
Foreign	5	(16)	(3)
Total deferred benefit	(34)	(23)	(76)
Total tax provision	\$ 44	\$ 68	\$ 122

The provision for income taxes reconciles to the amount computed by applying the federal statutory rate to (loss) income before taxes as follows:

<i>In millions</i>	2023	2022	2021
Tax at federal statutory rate	\$ (235)	\$ (911)	\$ 186
State, net of federal benefit	(16)	(9)	13
Research and other credits	(42)	(46)	(23)
Change in valuation allowance	48	62	33
Impact of R&D expense capitalization	86	87	—
Impact of net operating losses on GILTI and U.S. foreign tax credits	61	60	—
Impact of foreign operations	(50)	(81)	(80)
Impact of foreign derived intangible income (FDII) deduction	1	(1)	(12)
Stock compensation	31	20	(10)
Officer compensation	(4)	4	13
Accrual of European Commission fine	3	96	—
Goodwill impairment	149	822	—
Impact of acquisition related items	8	(27)	(16)
Other	4	(8)	18
Total tax provision	\$ 44	\$ 68	\$ 122

We have elected to account for the global intangible low-taxed income (GILTI) as a period cost in our consolidated financial statements.

The impact of foreign operations primarily represents the difference between the actual provision for income taxes for our legal entities that operate primarily in jurisdictions that have statutory tax rates lower than the U.S. federal statutory tax rate of 21%. The most significant tax benefits from foreign operations were from our earnings in Singapore, which had a statutory tax rate of 17% in 2023. The impact of foreign operations also includes the impact of GILTI and the U.S. foreign tax credit impact of non-U.S. earnings before the tax impact of net operating losses, and uncertain tax positions related to foreign items.

The impact of R&D expense capitalization is primarily the income tax expense impact of capitalizing research and development expenses for tax purposes on GILTI and the utilization of the U.S. foreign tax credits.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The impact of net operating losses on GILTI and U.S. foreign tax credits is primarily the income tax expense impact of GRAIL pre-acquisition net operating losses on GILTI and the utilization of the U.S. foreign tax credits.

The impact of acquisition related items includes the income tax expense impact of the gain on our previously held investment in GRAIL, acquisition related compensation, continuation payments, transaction costs, and changes to the contingent value rights associated with the GRAIL acquisition.

Significant components of deferred tax assets and liabilities were as follows:

<i>In millions</i>	December 31, 2023	January 1, 2023
Deferred tax assets:		
Net operating losses	\$ 392	\$ 408
Tax credits	211	157
Other accruals and reserves	49	40
Stock compensation	15	20
Capitalized U.S. R&D expenses	158	97
Other amortization	115	247
Operating lease liabilities	146	156
Property and equipment	4	—
Investments	7	5
Other	56	38
Total gross deferred tax assets	1,153	1,168
Valuation allowance on deferred tax assets	(251)	(203)
Total deferred tax assets	902	965
Deferred tax liabilities:		
Purchased intangible amortization	(734)	(800)
Property and equipment	—	(11)
Operating lease right-of-use assets	(88)	(112)
Other	(25)	(18)
Total deferred tax liabilities	(847)	(941)
Deferred tax assets, net	\$ 55	\$ 24

A valuation allowance is established when it is more likely than not the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis and includes a review of all available positive and negative evidence, including operating results and forecasted ranges of future taxable income. Based on the available evidence as of December 31, 2023, we were not able to conclude it is more likely than not certain deferred tax assets will be realized. Therefore, a valuation allowance of \$251 million was recorded against certain U.S. and foreign deferred tax assets.

As of December 31, 2023, we had net operating loss carryforwards for federal and state tax purposes of \$860 million and \$1,874 million, respectively, which will begin to expire in 2024 and 2025, respectively, unless utilized prior. We also had federal and state tax credit carryforwards of \$105 million and \$223 million, which will begin to expire in 2031 and 2027, respectively, unless utilized prior.

Pursuant to Section 382 and 383 of the Internal Revenue Code, utilization of net operating losses and credits may be subject to annual limitations in the event of any significant future changes in its ownership structure. These annual limitations may result in the expiration of net operating losses and credits prior to utilization. The deferred tax assets as of December 31, 2023 are net of any previous limitations due to Section 382 and 383.

ILLUMINA, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Our manufacturing operations in Singapore operate under various tax holidays and incentives, the first of which began to expire in 2023. These tax holidays and incentives resulted in a \$75 million, \$56 million, and \$82 million decrease to the provision for income taxes in 2023, 2022, and 2021, respectively. These tax holidays and incentives resulted in an increase in diluted (loss) earnings per share of \$0.47, \$0.35, and \$0.55, in 2023, 2022, and 2021, respectively.

As of December 31, 2023, we asserted that \$1,855 million of foreign earnings would not be indefinitely reinvested, and accordingly, recorded a deferred tax liability of \$25 million.

The following table summarizes the gross amount of our uncertain tax positions:

<i>In millions</i>	December 31, 2023	January 1, 2023	January 2, 2022
Balance at beginning of year	\$ 153	\$ 131	\$ 80
Increases related to prior year tax positions	27	12	19
Decreases related to prior year tax positions	(2)	(3)	(1)
Increases related to current year tax positions	42	42	39
Decreases related to lapse of statute of limitations	(10)	(29)	(6)
Balance at end of year	<u>\$ 210</u>	<u>\$ 153</u>	<u>\$ 131</u>

Included in the balance of uncertain tax positions as of December 31, 2023 and January 1, 2023, was \$156 million and \$124 million, respectively, of net unrecognized tax benefits that, if recognized, would reduce the effective income tax rate in future periods.

Any interest and penalties related to uncertain tax positions are reflected in the provision for income taxes. We recognized expense of \$2 million in 2023, income of \$3 million in 2022, and expense of \$1 million in 2021, related to potential interest and penalties on uncertain tax positions. We recorded a liability for potential interest and penalties of \$6 million and \$3 million as of December 31, 2023 and January 1, 2023, respectively.

Tax years 1997 to 2022 remain subject to future examination by the major tax jurisdictions in which we are subject to tax. The Internal Revenue Service completed an examination of the U.S. Corporation Income Tax Returns for tax years 2017, 2018, and 2020. Given the uncertainty of potential adjustments from examination as well as the potential expiration of the statute of limitations, it is reasonably possible that the balance of unrecognized tax benefits could change significantly over the next 12 months. Due to the number of years remaining that are subject to examination, we are unable to estimate the full range of possible adjustments to the balance of gross unrecognized tax benefits.

10. EMPLOYEE BENEFIT PLANS

Retirement Plan

We have a 401(k) savings plan covering substantially all of our employees in the United States. Our contributions to the plan are discretionary. During 2023, 2022, and 2021, we made matching contributions of \$36 million, \$30 million, and \$26 million, respectively.

Deferred Compensation Plan

The Illumina, Inc. Deferred Compensation Plan (the Plan) allows senior level employees to contribute up to 60% of their base salary and 100% of their variable cash compensation, and members of the board of directors to contribute up to 100% of their director fees and equity awards. Under the Plan, we credit the participants' contributions with earnings that reflect the performance of certain independent investment funds. On a discretionary basis, we may also make employer contributions to participant accounts in any amount determined by us. The vesting schedules of employer contributions are at the sole discretion of the Compensation Committee. However, all employer contributions shall become 100% vested upon the occurrence of the participant's disability, death or retirement or a change in control of Illumina. The benefits under this plan are unsecured. Participants are generally eligible to receive payment of their vested benefit at the end of their elected deferral period or after termination of their employment for any reason or at a later date to comply with the restrictions of Section 409A.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We also established a rabbi trust for the benefit of the participants under the Plan and have included the assets of the rabbi trust in the consolidated balance sheets. As of December 31, 2023 and January 1, 2023, the assets of the trust were \$61 million and \$52 million, respectively, and our liabilities were \$59 million and \$51 million, respectively. The assets and liabilities are classified as other assets and accrued liabilities, respectively, on the consolidated balance sheets. Changes in the values of the assets held by the rabbi trust are recorded in other (expense) income, net in the consolidated statements of operations, and changes in the values of the deferred compensation liabilities are recorded in operating expenses.

11. SEGMENTS AND GEOGRAPHIC DATA

Reportable Segment Information

We have two reportable segments, Core Illumina and GRAIL. We do not allocate expenses between segments. Additionally, our CODM does not evaluate our operating segments using discrete asset information.

On August 18, 2021, we acquired GRAIL and it operates as a separate reportable segment. We have included the results of operations of GRAIL in our consolidated statements of operations from the date of acquisition. Core Illumina sells products and provides services to GRAIL, and vice versa, in accordance with contractual agreements between the entities.

Core Illumina:

Core Illumina's products and services serve customers in the research, clinical and applied markets, and enable the adoption of a variety of genomic solutions. Core Illumina includes all of our operations, excluding the results of GRAIL.

GRAIL:

GRAIL is a healthcare company focused on early detection of multiple cancers.

ILLUMINA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

<i>In millions</i>	2023	2022	2021
Revenue:			
Core Illumina	\$ 4,438	\$ 4,553	\$ 4,519
GRAIL	93	55	12
Eliminations	(27)	(24)	(5)
Consolidated revenue	<u>\$ 4,504</u>	<u>\$ 4,584</u>	<u>\$ 4,526</u>
Depreciation and amortization:			
Core Illumina	\$ 273	\$ 240	\$ 200
GRAIL	159	154	51
Consolidated depreciation and amortization	<u>\$ 432</u>	<u>\$ 394</u>	<u>\$ 251</u>
Income (loss) from operations:			
Core Illumina	\$ 552	\$ 481	\$ 808
GRAIL	(1,621)	(4,657)	(931)
Eliminations	—	(3)	—
Consolidated (loss) income from operations	<u>\$ (1,069)</u>	<u>\$ (4,179)</u>	<u>\$ (123)</u>
Capital expenditures:			
Core Illumina	\$ 183	\$ 262	\$ 201
GRAIL	13	24	8
Eliminations	(1)	—	(1)
Consolidated capital expenditures	<u>\$ 195</u>	<u>\$ 286</u>	<u>\$ 208</u>

Total other (expense) income, net primarily relates to Core Illumina and we do not allocate income taxes to our segments.

Geographic Data

Net long-lived assets, consisting of property and equipment and operating lease right-of-use assets, by region, were as follows:

<i>In millions</i>	December 31, 2023	January 1, 2023
United States	\$ 1,040	\$ 1,237
Singapore	298	290
United Kingdom	136	149
Other countries	77	68
Total net long-lived assets	<u>\$ 1,551</u>	<u>\$ 1,744</u>

Refer to note [“2. Revenue”](#) for revenue by geographic area.

CONTROLS AND PROCEDURES

We design our internal controls to provide reasonable assurance that (1) our transactions are properly authorized; (2) our assets are safeguarded against unauthorized or improper use; and (3) our transactions are properly recorded and reported in conformity with U.S. generally accepted accounting principles. We also maintain internal controls and procedures to ensure that we comply with applicable laws and our established financial policies.

During the fourth quarter of 2023, we continued to monitor and evaluate the design and operating effectiveness of key controls. There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) that materially affected or are reasonably likely to materially affect internal control over financial reporting.

Our management, under the supervision and with the participation of our chief executive officer (CEO) and chief financial officer (CFO), has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act)), as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, our CEO and CFO have concluded that as of December 31, 2023, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission (SEC), and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

We conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2023. The effectiveness of our internal control over financial reporting as of December 31, 2023 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Illumina, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Illumina, Inc.'s internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Illumina, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2023 and January 1, 2023, the related consolidated statements of operations, comprehensive (loss) income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2023, and the related notes and our report dated February 16, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

San Diego, California
February 16, 2024

ADOPTIONS, MODIFICATIONS OR TERMINATIONS OF TRADING PLANS

During the quarterly period ended December 31, 2023, the following directors and officers adopted, modified or terminated 10b5-1 plans:

- On November 16, 2023, Caroline Dorsa, Director, entered in a new arrangement intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). The arrangement terminates on November 18, 2024 and provides for the purchase of up to \$200,000 in shares.
- On November 22, 2023, Jacob Thaysen, our Chief Executive Officer, entered in a new arrangement intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). The arrangement terminates on November 22, 2024 and provides for the purchase of up to \$1,000,000 in shares.

Other than as disclosed above, during the quarterly period ended December 31, 2023, (i) none of the Company's directors or officers adopted or terminated any "Rule 10b5-1 trading arrangement" or any "non-Rule 10b5-1 trading arrangement," and (ii) the Company did not adopt a "10b5-1 trading arrangement," in each case as such term is defined in Item 408 of Regulation S-K.

DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

Directors

Information concerning our directors is incorporated by reference from the section entitled “Proposal One: Election of Directors,” “Information About Directors,” “Director Compensation,” and “Board of Directors and Corporate Governance” to be contained in our definitive Proxy Statement with respect to our 2024 Annual Meeting of Stockholders to be filed with the SEC no later than April 29, 2024.

Executive Officers

Information concerning our executive officers is incorporated by reference from the section entitled “Executive Officers” to be contained in our definitive Proxy Statement with respect to our 2024 Annual Meeting of Stockholders to be filed with the SEC no later than April 29, 2024.

Corporate Governance

Section 16(a) of the Exchange Act

Information concerning compliance with Section 16(a) of the Securities Exchange Act of 1934 is incorporated by reference from the section entitled “Section 16(a) Beneficial Ownership Reporting Compliance” to be contained in our definitive Proxy Statement with respect to our 2024 Annual Meeting of Stockholders to be filed with the SEC no later than April 29, 2024.

Audit Committee Financial Expert

Information concerning the audit committee financial expert as defined by the SEC rules adopted pursuant to the Sarbanes-Oxley Act of 2002 is incorporated by reference from the section entitled “Board of Directors and Corporate Governance” to be contained in our definitive Proxy Statement with respect to our 2024 Annual Meeting of Stockholders to be filed with the SEC no later than April 29, 2024.

Code of Conduct

We have a code of conduct for our directors, officers, and employees, which is available on our website at www.illumina.com in the Corporate Governance portal of the Investor Information section under “Company.” A copy of the Code of Conduct is available in print free of charge to any stockholder who requests a copy. Interested parties may address a written request for a printed copy of the Code of Ethics to: Corporate Secretary, Illumina, Inc., 5200 Illumina Way, San Diego, California 92122. We intend to satisfy the disclosure requirement regarding any amendment to, or a waiver from, a provision of the Code of Ethics for our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, by posting such information on our website. The information on, or that can be accessed from, our website is not incorporated by reference into this report.

EXECUTIVE COMPENSATION

Information concerning executive compensation is incorporated by reference from the sections entitled “Compensation Discussion and Analysis,” “Director Compensation,” and “Executive Compensation” to be contained in our definitive Proxy Statement with respect to our 2024 Annual Meeting of Stockholders to be filed with the SEC no later than April 29, 2024.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information concerning the security ownership of certain beneficial owners and management and information covering securities authorized for issuance under equity compensation plans is incorporated by reference from the sections entitled “Stock Ownership of Principal Stockholders and Management,” “Executive Compensation,” and “Equity Compensation Plan Information” to be contained in our definitive Proxy Statement with respect to our 2024 Annual Meeting of Stockholders to be filed with the SEC no later than April 29, 2024.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information concerning certain relationships and related transactions, and director independence is incorporated by reference from the sections entitled “Proposal One: Election of Directors,” “Information About Directors,” “Director Compensation,” “Executive Compensation,” and “Certain Relationships and Related Party Transactions” to be contained in our definitive Proxy Statement with respect to our 2024 Annual Meeting of Stockholders to be filed with the SEC no later than April 29, 2024.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information concerning principal accountant fees and services is incorporated by reference from the sections entitled “Proposal Two: Ratification of Appointment of Independent Registered Public Accounting Firm” and “Independent Registered Public Accountants” to be contained in our definitive Proxy Statement with respect to our 2024 Annual Meeting of Stockholders to be filed with the SEC no later than April 29, 2024.

EXHIBITS, FINANCIAL STATEMENT SCHEDULES

Exhibits

The exhibits listed in the accompanying “[Index to Exhibits](#)” below are filed or incorporated by reference as part of this report.

Financial Statements

See “[Index to Consolidated Financial Statements](#)” within the Consolidated Financial Statements section of this report.

Financial Statement Schedules

All financial schedules have been omitted as the required information is not applicable, not material, or because the information required is included in the consolidated financial statements and notes thereto included in the [Consolidated Financial Statements](#) section of this report.

Index to Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	File Number	Exhibit	
2.1	Agreement and Plan of Merger dated as of September 20, 2020, among Illumina, Inc., SDG Ops, Inc., SDG Ops, LLC and GRAIL, Inc.	8-K	001-35406	2.1	9/21/2020
2.2	Amendment, dated as of February 5, 2021 to the Agreement and Plan of Merger dated as of September 20, 2020, among Illumina, Inc., SDG Ops, Inc., SDG Ops, LLC, and GRAIL, Inc.	8-K	001-35406	2.1	2/5/2021
3.1	Amended and Restated Certificate of Incorporation	10-Q	001-35406	3.1	8/11/2022
3.2	Amended and Restated Bylaws	8-K	001-35406	3.1	2/7/2023
4.1	Specimen Common Stock Certificate	S-1/A	333-33922	4.1	7/3/2000
4.2	Indenture related to the 0% Convertible Senior Notes due 2023, dated as of August 21, 2018, between Illumina and The Bank of New York Mellon Trust Company, N.A., as trustee	8-K	001-35406	4.1	8/21/2018
4.3	Description of Illumina, Inc.'s securities registered pursuant to Section 12 of the Exchange Act of 1934	10-K	001-35406	4.5	2/17/2021
4.4	Indenture related to the 0.55% notes due 2023 and 2.55% notes due 2031 dated as of March 12, 2021, between Illumina and U.S. Bank National Association, as trustee.	S-3	333-54195	4.6	3/12/2021
4.5	Form of Officer's Certificate setting forth the terms and forms of the 2023 Notes and 2031 Notes.	8-K	001-35406	4.2	3/22/2021
4.6	Contingent Value Rights Agreement by and among Illumina, Inc., Computershare Trust Company, N.A., as Trustee and Shareholder Representative Services LLC dated as of August 18, 2021	8-K	001-35406	4.1	8/18/2021
4.7	Form of Officer's Certificate setting forth the terms and forms of the 2025 Notes and 2027 Notes	8-K	001-35406	4.2	12/13/2022
+10.1	Form of Indemnification Agreement between Illumina and each of its directors and executive officers	10-Q	000-30361	10.55	7/25/2008
+10.2	Form of Change in Control Severance Agreement between Illumina and each of its executive officers	10-K	000-30361	10.34	2/26/2009
+10.3	2000 Employee Stock Purchase Plan, as amended and restated through May 2, 2023	10-Q	001-35406	10.1	8/10/2023
+10.4	New Hire Stock and Incentive Plan, as amended and restated through October 28, 2009	10-K	000-30361	10.7	2/26/2010
10.5	License Agreement, effective as of May 6, 1998, between Tufts University and Illumina	10-Q	000-30361	10.5	5/3/2007
+10.6	The Solexa Unapproved Company Share Option Plan	8-K	000-30361	99.3	11/26/2007

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+10.7	The Solexa Share Option Plan for Consultants	8-K	000-30361	99.4	11/26/2007
+10.8	Solexa Limited Enterprise Management Incentive Plan	8-K	000-30361	99.5	11/26/2007
+10.9	Amended and Restated Solexa 2005 Equity Incentive Plan	10-K	000-30361	10.25	2/26/2009
+10.10	Amended and Restated Solexa 1992 Stock Option Plan	10-K	000-30361	10.26	2/26/2009
+10.11	Amended and Restated 2015 Stock and Incentive Plan	8-K	001-35406	10.1	2/7/2023
+10.12	Form of Restricted Stock Unit Agreement for Employees Under Amended and Restated 2015 Stock and Incentive Plan	8-K	001-35406	10.4	2/7/2023
+10.13	Form of Performance Stock Unit Agreement (Relative TSR) for Employees Under Amended and Restated 2015 Stock and Incentive Plan	8-K	001-35406	10.2	2/7/2023
+10.14	Form of Performance Stock Unit Agreement (Adjusted EPS) for Employees Under Amended and Restated 2015 Stock and Incentive Plan	8-K	001-35406	10.3	2/7/2023
+10.15	Form of Option Agreement for Employees Under 2015 Stock and Incentive Plan	10-K	001-35406	10.15	2/17/2023
10.16	Amended and Restated Lease between BMR-9885 Towne Centre Drive LLC and Illumina for the 9885 Towne Centre Drive property, dated January 26, 2007	10-Q	000-30361	10.41	5/3/2007
10.17	Lease between BMR-9885 Towne Centre Drive LLC and Illumina for the 9865 Towne Centre Drive property, dated January 26, 2007	10-Q	000-30361	10.42	5/3/2007
10.18	Amended and Restated Lease Agreement, dated March 27, 2012, between ARE-SD Region No. 32, LLC and Illumina	10-Q	001-35406	10.1	5/3/2012
10.19	First Amendment to Amended and Restated Lease Agreement, dated March 27, 2012, between ARE-SD Region No. 32, LLC and Illumina	10-K	001-35406	10.23	2/18/2015
10.20	Second Amendment to Amended and Restated Lease Agreement, dated March 27, 2012, between ARE-SD Region No. 32, LLC and Illumina	10-K	001-35406	10.24	2/18/2015
10.21	Amended and Restated Second Amendment to Amended and Restated Lease Agreement, dated March 27, 2012, between ARE-SD Region No. 32, LLC and Illumina	10-K	001-35406	10.18	2/13/2018
+10.22	Deferred Compensation Plan, effective December 1, 2007	14D-9	005-60457	99(e)(6)	2/7/2012
10.23	Lease between BMR-Lincoln Centre LP and Illumina, dated December 30, 2014	10-K	001-35406	10.26	2/18/2015
10.24	Pooled Patents Agreement between Illumina and Sequenom, Inc., dated December 2, 2014 (with certain confidential portions omitted)	10-K	001-35406	10.27	2/18/2015

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10.25	First Amendment to Pooled Patents Agreement between Illumina and Sequenom, Inc., effective as of April 21, 2016	10-K	001-35406	10.22	2/13/2018
10.26	Second Amendment to Pooled Patents Agreement between Illumina and Sequenom, Inc., effective as of April 17, 2017	10-K	001-35406	10.23	2/13/2018
10.27	Third Amendment to Pooled Patents Agreement between Illumina and Sequenom, Inc., effective as of August 28, 2017 (with certain confidential portions omitted)	10-K	001-35406	10.24	2/13/2018
10.28	Fourth Amendment to Pooled Patents Agreement between Illumina and Sequenom, Inc., effective as of March 15, 2018	10-K	001-35406	10.25	2/11/2020
10.29	Fifth Amendment to Pooled Patents Agreement between Illumina and Sequenom, Inc., effective as of April 12, 2019 (with certain confidential portions omitted)	10-K	001-35406	10.25	2/11/2020
10.30	Sixth Amendment to Pooled Patents Agreement between Illumina and Sequenom, Inc., effective as of May 8, 2020 (with certain confidential portions omitted)	10-Q	001-35406	10.1	10/30/2020
10.31	Agreement for Lease between Granta Park Park Jco 1 Limited and Illumina, dated June 25, 2015	10-Q	001-35406	10.1	7/31/2015
10.32	Third Amendment to Lease between ARE-SD Region No. 32, LLC and Illumina, dated September 2, 2015	10-K	001-35406	10.29	3/2/2016
10.33	First Amendment to Lease between BMR-Lincoln Center LP and Illumina, dated February 23, 2016	10-K	001-35406	10.30	3/2/2016
10.34	Fourth Amendment to Lease between ARE-SD Region No. 32, LLC and Illumina, dated April 14, 2016	10-K	001-35406	10.28	2/14/2017
10.35	Second Amendment to Lease between BMR-Lincoln Center LP and Illumina dated August 15, 2016	10-K	001-35406	10.29	2/14/2017
10.36	Deed of Variation to the Agreement for Lease between Granta Park Jco 1 Limited and Illumina dated October 24, 2016	10-K	001-35406	10.30	2/14/2017
10.37	Third Amendment to Lease between BMR-Lincoln Center LP and Illumina dated January 18, 2018	10-Q	001-35406	10.10	4/25/2018
10.38	Selling Investor Support Agreement dated as of September 20, 2020, among Illumina, Inc. and each of the stockholders party thereto*	8-K	001-35406	10.01	9/21/2020
+10.39	Form of Insurance Matters Agreement	10-Q	001-35406	10.1	11/5/2021
10.40	Credit Agreement, dated as of January 4, 2023, among the Company, as the borrower, the lenders from time to time party thereto, Bank of America, N.A., as administrative agent, an issuing bank and the swingline lender, and the other issuing banks from time to time party thereto	8-K	001-35406	10.1	1/4/2023

+10.41	Offer Letter to Jacob Thaysen, dated August 31, 2023	8-K	001-35406	10.1	9/5/2023	
+10.42	Amended and Restated Offer Letter to Jacob Thaysen, dated November 8, 2023	8-K	001-35406	10.3	12/13/2022	
+10.43	Separation Agreement and Release of All Claims by and between Illumina, Inc. and Phil Febbo, dates as of September 5, 2023	10-Q	001-35406	10.3	11/5/2021	
21.1	Subsidiaries of Illumina					X
23.1	Consent of Independent Registered Public Accounting Firm					X
24.1	Power of Attorney (included on the signature page)					X
31.1	Certification of Jacob Thaysen pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of Joydeep Goswami pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.1	Certification of Jacob Thaysen pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
32.2	Certification of Joydeep Goswami pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
+97.1	Compensation Recovery/Clawback Policy - Adopted May 2, 2023					X
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document					X
101.SCH	XBRL Taxonomy Extension Schema					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase					X
101.LAB	XBRL Taxonomy Extension Label Linkbase					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase					X
104	Cover Page Interactive Data File - formatted in Inline XBRL and included as Exhibit 101					X

+ Management contract or corporate plan or arrangement

Supplemental Information

No Annual Report to stockholders or proxy materials has been furnished to stockholders as of the date of this report. The Annual Report to stockholders and proxy material will be furnished to our stockholders after the filing of this Annual Report on Form 10-K and we will furnish such material to the SEC at that time.

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SIGNATURES

Pursuant to the requirements of the Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 16, 2024.

ILLUMINA, INC.

By: /s/ JACOB THAYSEN
Jacob Thaysen
Chief Executive Officer

February 16, 2024

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENT, that each person whose signature appears below constitutes and appoints Jacob Thaysen and Joydeep Goswami, and each or any one of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their, his, or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>/s/ JACOB THAYSEN</u> Jacob Thaysen	Chief Executive Officer, Director (Principal Executive Officer)	February 16, 2024
<u>/s/ JOYDEEP GOSWAMI</u> Joydeep Goswami	Chief Financial Officer, Chief Strategy and Corporate Development Officer (Principal Financial Officer)	February 16, 2024
<u>/s/ SCOTT ERICKSEN</u> Scott Ericksen	Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 16, 2024
<u>/s/ STEPHEN P. MACMILLAN</u> Stephen P. MacMillan	Chairman of the Board of Directors	February 16, 2024
<u>/s/ FRANCES ARNOLD</u> Frances Arnold, Ph.D.	Director	February 16, 2024
<u>/s/ CAROLINE DORSA</u> Caroline Dorsa	Director	February 16, 2024
<u>/s/ ROBERT S. EPSTEIN</u> Robert S. Epstein, M.D.	Director	February 16, 2024
<u>/s/ SCOTT GOTTLIEB</u> Scott Gottlieb, M.D.	Director	February 16, 2024
<u>/s/ GARY S. GUTHART</u> Gary S. Guthart, Ph.D.	Director	February 16, 2024
<u>/s/ PHILIP SCHILLER</u> Philip Schiller	Director	February 16, 2024
<u>/s/ SUSAN SIEGEL</u> Susan Siegel	Director	February 16, 2024
<u>/s/ ANDREW TENO</u> Andrew Teno	Director	February 16, 2024
<u>/s/ SCOTT B. ULLEM</u> Scott B. Ullem	Director	February 16, 2024

SUBSIDIARIES OF THE COMPANY

The following is a list of subsidiaries of Illumina, Inc. as of December 31, 2023, omitting subsidiaries which, considered in the aggregate, would not constitute a significant subsidiary

Name of Subsidiary	Jurisdiction	Doing Business As
Advanced Liquid Logic Inc.	Delaware	Advanced Liquid Logic Inc.
BlueBee Holding BV	Netherlands	BlueBee Holding BV
Conexio Genomics Pty Ltd.	Australia	Conexio Genomics Pty Ltd.
Emedgene Technologies Ltd	Israel	Emedgene
GRAIL, LLC	Delaware	GRAIL, LLC
IDbyDNA Inc.	Delaware	IDbyDNA Inc.
Illumina AB	Sweden	Illumina AB
Illumina Australia Pty. Ltd.	Australia	Illumina Australia Pty. Ltd.
Illumina Austria GmbH	Austria	Illumina Austria GmbH
Illumina Belgium BV	Belgium	Illumina Belgium BVBA
Illumina Brasil Produtos de Biotecnologia Ltda.	Brazil	Illumina Brazil
Illumina Cambridge, Ltd.	United Kingdom	Illumina Cambridge, Ltd.
Illumina Canada ULC	Canada	Illumina Canada ULC
Illumina (China) Scientific Co Ltd	China	Illumina (China) Scientific Co Ltd
Illumina (China) Scientific Co., Ltd. – Beijing Branch	China	Illumina (China) Scientific Co., Ltd. – Beijing Branch
Illumina (China) Scientific Co., Ltd. – Guangzhou Branch	China	Illumina (China) Scientific Co., Ltd. – Guangzhou Branch
Illumina Colombia S.A.S.	Colombia	Illumina Colombia S.A.S.
Illumina Denmark ApS	Denmark	Illumina Denmark ApS
Illumina Diagnostics (Shanghai) Co., Ltd.	China	Illumina Diagnostics (Shanghai) Co., Ltd.
Illumina Finland Oy	Finland	Illumina Finland Oy
Illumina France Holding Sarl	France	Illumina France Holding Sarl
Illumina France Sarl	France	Illumina France Sarl
Illumina GmbH	Germany	Illumina GmbH
Illumina Hong Kong Limited	Hong Kong	Illumina Hong Kong Limited
Illumina India Biotechnology Private Limited	India	Illumina India Biotechnology Private Limited
Illumina Ireland Commercial Limited	Ireland	Illumina Ireland Commercial Limited
Illumina Italy S.r.l.	Italy	Illumina Italy S.r.l.
Illumina Korea Ltd.	Republic of Korea	Illumina Korea Ltd.
Illumina K.K.	Japan	Illumina K.K.
Illumina México Productos de Biotecnología, S. de R.L. de C.V.	Mexico	Illumina México Productos de Biotecnología, S. de R.L. de C.V.
Illumina Middle East FZE	United Arab Emirates	Illumina Middle East FZE
Illumina Netherlands B.V.	Netherlands	Illumina Netherlands B.V.
Illumina New Zealand Limited	New Zealand	Illumina New Zealand Limited
Illumina Norway AS	Norway	Illumina Norway AS
Illumina Productos de Espana, S.L.U.	Spain	Illumina Productos de Espana, S.L.U.
Illumina Rus LLC	Russia	Illumina Rus
Illumina Shanghai (Trading) Co., Ltd.	China	Illumina Shanghai (Trading) Co., Ltd.

Illumina Singapore Pte. Ltd.	Singapore	Illumina Singapore Pte. Ltd
Illumina Software, Inc.	Delaware	Illumina Software, Inc.
Illumina Switzerland GmbH	Switzerland	Illumina Switzerland GmbH
Illumina US Manufacturing Operations, Inc.	Delaware	Illumina US Manufacturing Operations, Inc.
Illumina Taiwan Biotechnology Co., Ltd.	Taiwan	Illumina Taiwan Biotechnology Co., Ltd.
Illumina Turkey Biyoteknoloji Limited Sirketii	Turkey	Illumina Turkey Biyoteknoloji Limited Sirketii
Partek Inc.	Missouri	Partek Inc.
Partek SG PTE. LTD.	Singapore	Partek SG PTE. LTD.
Verinata Health, Inc.	Delaware	Verinata Health, Inc.

*All listed subsidiaries are wholly-owned, direct or indirect, subsidiaries of Illumina, Inc.

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-3 No. 333-254195) of Illumina, Inc., and
- (2) Registration Statement (Form S-8 No. 333-206215) of Illumina, Inc.;

of our reports dated February 16, 2024, with respect to the consolidated financial statements of Illumina, Inc. and the effectiveness of internal control over financial reporting of Illumina, Inc. included in this Annual Report (Form 10-K) of Illumina, Inc. for the year ended December 31, 2023.

/s/ Ernst & Young LLP

San Diego, California

February 16, 2024

CERTIFICATION OF JACOB THAYSEN PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jacob Thaysen, certify that:

- 1 I have reviewed this Annual Report on Form 10-K of Illumina, Inc.;
- 2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4 The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 16, 2024

By: /s/ JACOB THAYSEN
 Name: Jacob Thaysen
 Title: Chief Executive Officer

CERTIFICATION OF JOYDEEP GOSWAMI PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Joydeep Goswami, certify that:

- 1 I have reviewed this Annual Report on Form 10-K of Illumina, Inc.;
- 2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4 The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 16, 2024

By: /s/ JOYDEEP GOSWAMI
Name: Joydeep Goswami
Title: Chief Financial Officer, Chief Strategy and Corporate Development Officer

**CERTIFICATION OF JACOB THAYSEN PURSUANT TO 18 U.S.C. SECTION
1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-
OXLEY ACT OF 2002**

In connection with the Annual Report of Illumina, Inc. (the "Company") on Form 10-K for the year ended December 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jacob Thaysen, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 16, 2024

By: /s/ JACOB THAYSEN
Name: Jacob Thaysen
Title: Chief Executive Officer

This certification accompanying the Report is not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of such Section, and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before, on or after the date of the Report), irrespective of any general incorporation language contained in such filing.

**CERTIFICATION OF JOYDEEP GOSWAMI PURSUANT TO 18 U.S.C.
SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE
SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Illumina, Inc. (the "Company") on Form 10-K for the year ended December 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joydeep Goswami, Chief Financial Officer, Chief Strategy and Corporate Development Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 16, 2024

By: /s/ JOYDEEP GOSWAMI
Name: Joydeep Goswami
Title: Chief Financial Officer, Chief Strategy and Corporate Development Officer

This certification accompanying the Report is not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of such Section, and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before, on or after the date of the Report), irrespective of any general incorporation language contained in such filing.

ILLUMINA, INC.

Compensation Recovery Policy

The Board of Directors of Illumina, Inc. (the “Company”) has adopted this Compensation Recovery Policy (the “Policy”), as required by Section 10D of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), Rule 10D-1 under the Exchange Act and the Nasdaq National Market listing standards. This Policy is intended to further strengthen the relationship between executive pay and stockholder value. Accordingly, as set forth in this Policy, it may be required or otherwise appropriate for the Company to recover certain incentive compensation of its executive officers (as defined below). This Policy shall be effective as of May 2, 2023 (the “Effective Date”).

1. **Applicability**. This Policy applies to all current or former executive officers of the Company (as defined in Rule 10D-1(d) under the Exchange Act, collectively, the “Covered Employees”). Each Covered Employee shall be required to execute a Compensation Recovery Policy Acknowledgement and Agreement in the form attached as Exhibit A hereto.

2. **Administration**. The Policy will be administered by the Compensation Committee of the Board of Directors (the “Committee”) unless the independent members of the Board of Directors determine to administer the Policy in lieu of the Committee (the Committee or such group of independent members, as applicable, in its role administering the Policy, the “Administrator”). The Administrator shall have the full power and authority to make all determinations under this Policy, including without limitation, to interpret the Policy, determine whether it applies and, if so, the amount of compensation to be repaid or forfeited by the Covered Employee. All determinations and decisions made by the Administrator pursuant to the provisions of this Policy shall be final, conclusive and binding on all persons, including the Company, its affiliates, its stockholders and employees. The Administrator may delegate administrative duties to one or more officers or employees of the Company. Any action or, where permitted by this Policy, inaction by the Administrator with respect to a Covered Employee under this Policy shall in no way limit the Administrator’s actions or, where permitted by this Policy, decision not to act with respect to any other Covered Employee subject to this Policy or under a similar policy, agreement, or arrangement, nor will any such action or, where permitted by this Policy, inaction serve as a waiver of any rights the Company may have against any Covered Employee other than as set forth in this Policy. To the extent permitted by this Policy, the Administrator may apply these provisions differently to each such Covered Employee, in its good faith discretion, taking into account, among others, (i) whether the assertion of a claim may violate applicable law or prejudice the interests of the Company (including but not limited to any prejudice to the interests of the Company in any proceeding or investigation), (ii) whether other penalties or punishments are being imposed on the Covered Employee, including by third parties, or any governmental or regulatory authority (including, without limitation action taken under Section 304 of the Sarbanes-Oxley Act of 2002), (iii) the nature of the events that led to the Recoverable Event, (iv) the Covered Employee’s conduct, role and responsibilities with respect to the events that led to a Recoverable Event, and (v) such other factors as determined by the Administrator. Any determination that recovery from a Covered Employee pursuant to this Policy would be impracticable, to the extent such a determination is permitted under this Policy, shall be made by the Administrator for so long as it consists of independent directors or otherwise by a majority of the independent directors of the

3. **Recoverable Amounts and Forfeiture**. In the event the Company is required to prepare a Covered Financial Restatement (as defined below), the Administrator shall seek reasonably promptly the recovery of any Recoverable Amount (as defined below) received by such Covered Employee during the three completed fiscal years immediately preceding the Triggering Date (as defined below) or any transition period as specified in Rule 10D-1(b)(1)(i)(D) under the Exchange Act. Unless otherwise specified by the Administrator, such Covered Employee shall be required to forfeit or repay the Recoverable Amount within ninety (90) days following the date he or she is informed that he or she holds or has received the Recoverable Amount from the Company. The Administrator shall have discretion to determine the appropriate procedures and means by which a recovery of any Recoverable Amount shall be implemented, including through canceling or recouping other compensation earned by the Covered Employee.

Notwithstanding the foregoing, the Administrator shall have discretion on whether or not to seek the recovery of any Recoverable Amount to the extent explicitly permitted under the listing requirements of the exchange(s) on which the Company’s securities are publicly traded implementing the requirements of Rule 10D-1(d) under the Exchange Act, including with respect to Incentive Compensation that was received

by a Covered Employee (A) prior to beginning service as an executive officer or (B) who did not serve as an executive officer (as defined above) of the Company at any time during the performance period for such Incentive Compensation.

For purposes of this Policy:

(1) "Covered Financial Restatement" means an accounting restatement required due to material noncompliance by the Company with any financial reporting requirements under the federal securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period.

(2) "Financial Reporting Measure" means a measure determined in accordance with the accounting principles used in preparing the Company's financial statements, and any measure derived in whole or in part from such measures. Stock price and total shareholder return are also Financial Reporting Measures.

(3) "Incentive Compensation" means any compensation that is granted, earned or becomes vested (including any amounts or awards deferred with respect thereto) wholly or in part upon the attainment of a Financial Reporting Measure. For the avoidance of doubt, compensation that is earned solely based on service or the passage of time, shall not be considered Incentive Compensation for purposes of this Policy.

Incentive Compensation shall be considered to be "received" by a Covered Employee in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive Compensation is achieved or attained, even if the payment or grant of the Incentive Compensation occurs after the end of that fiscal period.

(4) "Recoverable Amount" means the amount of Incentive Compensation received by a Covered Employee from the Company in excess of the amount that would have been received had it been determined based on the restated amounts. The amount of a Recoverable Amount shall be determined without regard to any taxes paid by the Covered Employee and shall in all instances be determined in the good faith discretion of the Committee. In the event a Recoverable Amount is not subject to mathematical recalculation directly from the information in the Covered Financial Restatement, the Administrator shall have discretion to determine the Recoverable Amount, provided that, to the extent the Financial Reporting Measure is stock price or total shareholder return, the Recoverable Amount must be based on a reasonable estimate of the effect of the Covered Financial Restatement on such Financial Reporting Measure.

(5) "Triggering Date" means the earliest to occur of (i) the date the Company's Board of Directors, a committee of the Board of Directors, or the officer or officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare a Covered Financial Restatement or (ii) the date a court of competent jurisdiction, regulator, or other legally authorized body directs the Company to prepare a Covered Financial Restatement.

4. **Enforceability**. The adoption of this Policy does not mitigate, and is intended to enhance, the effect of any recoupment, forfeiture or similar policies in any equity award agreement, employment agreement or similar agreement in effect prior to the Effective Date. The remedy specified in this policy shall not be exclusive and shall be in addition to every other right or remedy at law or in equity that may be available to the Company.

5. **Severability**. The provisions in this Policy are intended to be applied to the fullest extent of the law, provided, however, to the extent that any provision of this Policy is found to be subject to, or unenforceable or invalid under, any applicable law, such provision will be applied to the maximum extent permitted, and shall automatically be deemed amended in a manner consistent with its objectives to the extent necessary to conform to any limitations required under applicable law.

6. **Amendment, Modification and Termination**. This Policy may at any time or from time to time be amended, modified or terminated by the Administrator in its sole and absolute discretion.

7. **Miscellaneous provisions** To the extent that the application of this Policy would provide for recovery of Incentive Compensation that the Company recovers pursuant to Section 304 of the Sarbanes-

Oxley Act or other recovery obligations, the amount the relevant Covered Person has already reimbursed the Company will be credited to the required recovery under this Policy. This Policy will not limit the rights of the Company to take any other actions or pursue other remedies that the Company may deem appropriate under the circumstances and under applicable law. This Policy will be binding and enforceable against all Covered Employees and their beneficiaries, heirs, executors, administrators or other legal representatives.

EXHIBIT A

COMPENSATION RECOVERY POLICY ACKNOWLEDGEMENT AND AGREEMENT

This Compensation Recovery Policy Acknowledgement and Agreement (the "**Agreement**") is entered into as of the day of , 202_, between Illumina, Inc. (the "**Company**") and (the "**Covered Employee**").

WHEREAS, Covered Employee is an "executive officer" of the Company as defined in Rule 10D-1(d) under the Securities Exchange Act of 1934;

WHEREAS, the Company's Board of Directors has adopted a Compensation Recovery Policy, as the same may be amended from time-to-time (the "**Policy**"); and

WHEREAS, in consideration of, and as a condition to the receipt of, future performance- based compensation, Covered Employee and the Company are entering into this Agreement.

NOW, THEREFORE, the Company and Covered Employee hereby agree as follows:

1. Covered Employee acknowledges receipt of the Policy, a copy of which is attached hereto as Annex A and is incorporated into this Agreement by reference. Covered Employee has read and understands the Policy and has had the opportunity to ask questions of the Company regarding the Policy.
 2. Covered Employee hereby acknowledges and agrees that the Policy shall apply to any Incentive Compensation (as defined in the Policy), and all such Incentive Compensation shall be subject to repayment or forfeiture under the Policy.
 3. Each award agreement or other document setting forth the terms and conditions of Incentive Compensation granted to Covered Employee may include a provision incorporating the requirements of the Policy; provided that the Company's failure to incorporate the Policy into any award agreement or other document shall not waive the Company's right to enforce the Policy. In the event of any inconsistency between the provisions of the Policy and the applicable award agreement or other document setting forth the terms and conditions of any Incentive Compensation, the terms of the Policy shall govern.
 4. The repayment or forfeiture of any Recoverable Amount (as defined in the Policy) pursuant to the Policy and this Agreement shall not in any way limit or affect the Company's right to pursue disciplinary action or dismissal, take legal action or pursue any other remedies available to the Company, including, without limitation, enforcing the forfeiture and repayment provisions under the Company's equity incentive plan. This Agreement and the Policy shall not replace, and shall be in addition to, any rights of the Company to recover any Recoverable Amount, or any other compensation, from its executive officers under applicable laws and regulations, including but not limited to the Sarbanes-Oxley Act of 2002; provided that, to the extent required by applicable law, any amount recoverable from chief executive and chief financial officers under Section 304 of the Sarbanes-Oxley Act of 2002 would be credited against any Recoverable Amount under the Policy.
 5. To the extent that any Recoverable Amount subject to repayment or forfeiture under the Policy is not immediately returned or paid to the Company or forfeited, the Company may, to the extent permitted by law, seek other remedies, including a set off of the amounts so payable to it against any amounts that may be owing from time-to-time by the Company or a subsidiary to Covered Employee for any reason, including, without limitation, wages, future payments of Incentive Compensation, severance, or vacation pay or other benefits.
-

6. Covered Employee acknowledges that Covered Employee's execution of this Agreement is in consideration of, and is a condition to, the receipt or vesting by Covered Employee of awards of Incentive Compensation from the Company on and after the date hereof; provided, however, that nothing in this Agreement shall be deemed to obligate the Company to make any such awards to Covered Employee.

7. This Agreement may be executed in two or more counterparts, and by facsimile or electronic transmission, each of which will be deemed to be an original but all of which, taken together, shall constitute one and the same Agreement.

8. No modifications, waivers or amendments of the terms of this Agreement shall be effective unless in writing and signed by the parties or their respective duly authorized agents. Notwithstanding the foregoing, the Company may amend the Policy at any time, in its sole discretion, as the Company reasonably determines to be necessary or advisable for the Policy to comply with the Dodd-Frank Wall Street Reform and Consumer Protection Act or any other rules or regulations issued by the Securities and Exchange Commission or applicable securities exchanges and Covered Employee hereby consents to any such amendment.

9. To the extent not preempted by federal law, this Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without reference to principles of conflict of laws thereof or of any other jurisdiction. Each of this Agreement and the Policy shall survive and continue in full force in accordance with its terms notwithstanding any termination of Covered Employee's employment with the Company and its affiliates. The provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, administrators, heirs, legal representatives and assigns of Covered Employee, and the successors and assigns of the Company. If any provision of this Agreement is or becomes invalid, illegal or unenforceable in any jurisdiction, or would disqualify this Agreement under any law deemed applicable by the Company, such provision shall be construed or deemed amended or limited in scope to conform to applicable laws or, in the discretion of the Company, it shall be stricken and the remainder of this Agreement shall remain in full force and effect.

10. Any dispute, controversy or claim arising out of or relating to this Policy shall be administered by and in accordance with the then-existing JAMS Comprehensive Arbitration Rules and Procedures. Any dispute regarding the scope of the arbitration (including the matters subject to arbitration and any legal issues arising in the arbitration) shall be resolved by the arbitrators. The parties shall each bear their own expenses in connection with any dispute under or relating to the Policy.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

ILLUMINA, INC.

By: _____
Name: _____
Title: _____
Date: _____

COVERED EMPLOYEE

By: _____
Name: _____
Date: _____