ILLUMINA INC
Form 10-K
February 28, 2011

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

Form 10-K

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended January 2, 2011

or

o **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: 000-30361
Illumina, Inc.
(Exact name of Registrant as Specified in Its Charter)

Delaware	**33-0804655**
(State or other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*
9885 Towne Centre Drive, San Diego, California	**92121**
(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	**Name of Exchange on Which Registered**
Common Stock, $0.01 par value (including associated Preferred Stock Purchase Rights)	The NASDAQ Global Select Market

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 þ No o

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 o No þ

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 þ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes þ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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 þ Accelerated filer o Non-accelerated filer o Smaller reporting company o
(Do not check if a smaller reporting company)

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

As of February 4, 2011, there were 127,626,004 shares (excluding 24,868,929 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 4, 2010 (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 that date, was $3,554,527,753. This amount excludes an aggregate of 41,715,009 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 annual meeting of stockholders expected to be held on May 10, 2011 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 JANUARY 2, 2011

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EX-101 LABELS LINKBASE DOCUMENT
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Special Note Regarding Forward-Looking Statements

This annual report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements discuss our current expectations concerning future results or events, including our future financial performance. We make these forward-looking statements in reliance on the safe harbor protections provided under the Private Securities Litigation Reform Act of 1995. These statements include, among others:

- statements concerning our expectations as to our future financial performance, results of operations, or other operational results or metrics;
- statements concerning the benefits that we expect will result from our business activities and certain transactions we have completed, such as product introductions, increased revenue, decreased expenses, and avoided expenses and expenditures; and
- statements of our expectations, beliefs, future plans and strategies, anticipated developments (including new products), and other matters that are not historical facts.

These statements may be made expressly in this document or may be incorporated by reference to other documents we have filed or will file with the Securities and Exchange Commission, or SEC. You can identify many of these statements by looking for words such as anticipates, believes, can, continue, could, estimates, expects, in plans, potential, predicts, should, or will or the negative of these terms or other comparable terminology and sim references to future periods. These forward-looking statements are subject to numerous assumptions, risks, and uncertainties that may cause actual results or events to be materially different from any future results or events expressed or implied by us in those statements. Many of the factors that will determine or effect these results or events are beyond our ability to control or project. Specific factors that could cause actual results or events to differ from those in the forward-looking statements include:

- our ability to develop and commercialize further our sequencing, BeadArray™, VeraCode®, Eco™, and reagents technologies and to deploy new sequencing, genotyping, gene expression, and diagnostics products and applications for our technology platforms;
- our ability to manufacture robust instrumentation and consumables;
- reductions in the funding levels to our primary customers, including as the result of timing and amount of funding provided by the American Recovery and Reinvestment Act of 2009; and
- other factors detailed in our filings with the SEC, including the risks, uncertainties, and assumptions described in Item 1A Risk Factors below, or in information disclosed in public conference calls, the date and time of which are released beforehand.

Our forward-looking statements speak only as of the date of this annual report. We undertake no obligation, and do not intend, to publicly update or revise forward-looking statements, to review or confirm analysts expectations, or to provide interim reports or updates on the progress of any current financial quarter, whether as a result of new information, future events, or otherwise. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained in this annual report. Given these uncertainties, we caution investors not to unduly rely on our forward-looking statements.

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

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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.

Illumina®, Ampligase®, Array of Arrays™, BeadArray™, BeadXpress®, CSPro®, DASL®, DuraScribe®, DuraScript®, Eco™, EPICENTRE®, Genetic Energy™, GoldenGate®, GoldenGate Indexing™, GenomeStudio®, illumina*Dx*™, HiScan™, HiSeq™, Infinium®, IntelliHyb®, iSelect®, Making Sense Out of Life®, MiSeq™, Oligator®, Sentrix®, Solexa®, TruSeq™, and VeraCode® are certain of our trademarks. This report also contains brand names, trademarks, or service marks of companies other than Illumina, and these brand names, trademarks, and service marks are the property of their respective holders.

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 subsidiaries.

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PART I

ITEM 1. *Business*

Overview

We are a leading developer, manufacturer, and marketer of life science tools and integrated systems for the analysis of genetic variation and function. We were incorporated in California in April 1998 and reincorporated in Delaware in July 2000. Our principal executive offices are located at 9885 Towne Centre Drive, San Diego, California 92121. Our telephone number is (858) 202-4500.

Using our proprietary technologies, we provide a comprehensive line of genetic analysis solutions, with products and services that serve a broad range of highly interconnected markets, including sequencing, genotyping, gene expression, and molecular diagnostics. Our customers include leading genomic research centers, academic institutions, government laboratories, and clinical research organizations, as well as pharmaceutical, biotechnology, agrigenomics, and consumer genomics companies.

Our broad portfolio of systems, consumables, and analysis tools are designed to simplify genetic analysis. This portfolio addresses a range of genomic complexity, price points, and throughputs, enabling researchers to select the best solution for their scientific challenge. In 2007, through our acquisition of Solexa, Inc., we acquired our proprietary sequencing by synthesis (SBS) technology that is at the heart of our leading-edge sequencing instruments. These systems can be used to efficiently perform a range of nucleic acid (DNA, RNA) analyses on large numbers of samples. For more focused studies, our array-based solutions provide ideal tools to perform genome-wide association studies (GWAS) involving single-nucleotide polymorphism (SNP) genotyping and copy number variation (CNV) analyses, as well as gene expression profiling, and other DNA, RNA, and protein studies. To further enhance our genetic analysis workflows, in January 2011 we acquired Epicentre Technologies Corporation, a leading provider of nucleic acid sample preparation reagents and specialty enzymes for sequencing and microarray applications. In 2010, through our acquisition of Helixis, Inc., we expanded our portfolio to include real-time polymerase chain reaction (PCR), one of the most widely used technologies in life sciences. Our new Eco Real-Time PCR System provides researchers with an affordable, full-featured system to perform targeted validation studies.

Our operating structure is divided into two business segments, the Life Sciences Business Unit and the Diagnostics Business Unit. During 2010, our Diagnostics Business Unit had limited business activity and, accordingly, operating results for both units are reported on an aggregate basis as one operating segment. At each reporting period end, we will reassess our reportable operating segments, particularly as we continue to develop our molecular diagnostics business.

Industry Background

Genetics Primer

The instruction set for all living cells is encoded in deoxyribonucleic acid, or DNA, with the complete set of DNA for any organism 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 are present in a precise order known as the DNA sequence. When a gene is expressed, a partial copy of its DNA sequence called messenger RNA (mRNA) is used as a template

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to direct the synthesis of a 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 caused by insertions, deletions, inversions, or duplications of nucleotide bases may result in certain genes becoming over-expressed (excessive protein production), under-expressed (reduced protein production), or silenced altogether, sometimes triggering changes in cellular function. These changes can be the result of heredity, but most often occur at random. The most common form of variation in humans is called a single-nucleotide polymorphism (SNP), which is a variation in a single position of a nucleotide base in a DNA sequence. Copy number variations (CNVs) occur when there are fewer or more copies of certain genes.

In humans, genetic variation accounts for many of the physical differences we see (height, hair, eye color, etc.). More importantly, these genetic variations 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 also impact an individual s response to certain drug treatments, causing them to respond well, not respond at all, or experience adverse side effects an area of study known as pharmacogenomics.

Scientists are studying these variations and their consequences in humans, as well as a broad range of animals, plants, and microorganisms. Researchers investigating human, viral, and bacterial genetic variation are helping us to better understand the mechanisms of disease and develop more effective therapeutics and diagnostics. Greater insight into genetic variation in plants (e.g., food and biofuel crops) and animals (e.g., livestock and domestic animals) is enabling scientists to improve crop yields and animal breeding programs.

The methods for studying genetic variation and biological function include sequencing, SNP genotyping, CNV analysis, gene expression profiling, and gene regulation analysis, each of which is addressed by our breadth of products and services.

Life Sciences Research Primer

Life science research encompasses the study of all living things, from humans, animals, and plants, to viruses and bacteria. It is being performed in government, university, pharmaceutical, biotechnology, and agrigenomics laboratories around the world, where scientists are seeking to expand our knowledge of the biological functions essential for life. Beginning at the genetic level, where our tools are used to elucidate the correlation between gene sequence and biological processes, life science research expands to include the study of the cells, tissues, organs, systems, and other components that make up living organisms. This research

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supports development of new, more effective clinical diagnostics and medicines to improve human health, as well as advances in agriculture and animal husbandry to meet the world s growing needs for food and energy.

Molecular Diagnostics Primer

Molecular diagnostic assays (or tests) are designed to identify the biological indicators linked with disease and drug metabolism, providing physicians with information to more effectively diagnose, treat, and monitor both acute and chronic disease conditions. They are an integral part of personalized healthcare, where the unique makeup of each individual will be taken into account in diagnosing disease and managing treatment through the use of more tailored therapies. Biological indicators that can be measured by these assays include protein or gene expression, methylation levels, copy number variations, and the presence or absence of a specific gene or group of genes.

There are molecular diagnostic assays on the market for infectious disease, cancer, and heart disease, as well as molecular-based drug metabolism assays to help physicians select the most effective therapy with the fewest side effects. Our innovative technologies and products are contributing to the development of a wide-range of potential molecular diagnostic assays. Our own efforts in this area are currently focused on the identification of certain genetic markers with potential diagnostic and therapeutic utility.

Growing news coverage about the clinical relevance of newly discovered genetic markers has prompted consumers interest in having their personal genomes analyzed, sparking the development of the consumer genomics market. We believe there are distinct medical benefits, especially for people with family histories of certain diseases, of knowing your disease predisposition. Several companies, including Illumina, now offer personal sequencing or genotyping services, working with physician groups and genetic counselors to interpret the results for consumers.

We believe the growth in consumer genomics and the use of molecular diagnostic assays will trigger a fundamental shift in the practice of medicine and the economics of the pharmaceutical industry by facilitating an increased emphasis on preventative and predictive molecular medicine, ushering in the era of personalized medicine.

Our Principal Markets

From the company s inception, we have believed that the analysis of genetic variation and function will play an increasingly important role in molecular biology, and that by empowering genetic analysis, our tools will advance disease research, drug development, and the creation of molecular tests. In addition to developing sequencing- and array-based solutions for life science, applied, and consumer genomics markets, we are making inroads into the emerging market of molecular diagnostics.

Life Sciences Research Market

The life sciences research market consists of laboratories generally associated with universities, medical research centers, government institutions, as well as biotechnology and pharmaceutical companies. Researchers at these institutions are using our products and services in a broad spectrum of scientific activities, such as: next-generation sequencing, mid-to-high-complexity genotyping and gene expression (for whole-genome discovery and profiling), and low complexity genotyping and gene expression (for high-throughput targeted screening). DNA sequencing is growing the most rapidly among these three areas due to the creation of next-generation sequencing technologies, such as SBS. It is fueled by private and public funding, new global initiatives to broadly characterize genetic variation, and the migration of legacy genetic applications to sequencing-based technologies.

Applied Markets

We provide products and services for various other markets, which we refer to as applied markets. The largest among these is the Agbio market, where government and corporate researchers use our sequencing- and array-based tools to accelerate and enhance agricultural research. For example, we currently offer

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microarrays that contain SNPs for custom and focused genotyping of seeds and crops (such as maize) and livestock (such as cattle, horses, pigs, and sheep). Customers use them to perform selective breeding, accelerating and enhancing the process over traditional methods such as cross-breeding.

Molecular Diagnostics Market

Molecular diagnostics makes up the fastest growing segment in the clinical diagnostics market, with the primary growth drivers being the continued discovery of genetic markers with proven clinical utility, the increasing adoption of genetic-based diagnostic tests, and the expansion of reimbursement programs to include a greater number of approved molecular diagnostic tests. We believe our BeadXpress instrument platform, using our VeraCode technology, is ideally suited to provide a cost-effective, high-throughput, mid- to low-multiplex solution to the molecular diagnostic market. In April 2010, we obtained 510(K) approval for the BeadXpress platform from the U.S. Food and Drug Administration (FDA). We have initiated development of a variety of clinical diagnostic testing panels for this platform and are continuing research into the potential development of cancer diagnostic panels, initially focusing on ovarian, gastric, and colorectal cancers. During the fourth quarter of 2009, we made an FDA pre-IDE (investigational device exemption) submission for a cytogenetics test intended to be used on our iScan instrument platform as an aid in the postnatal diagnosis of chromosomal abnormalities known to be associated with developmental delay and mental retardation. Following completion of the required clinical trial, we intend to seek FDA clearance for the iScan instrument platform and related consumables.

Consumer Genomics Markets

New sequencing and genotyping technologies, such as those developed by Illumina, are driving down the cost of performing analyses which are increasingly valuable in diagnosing disease and evaluating disease risk. Consumer genomics is a nascent market, but one we believe has the potential for high growth as the cost per analysis continues to drop. In June 2009, we launched our Individual Genome Sequencing Service, the first physician-intermediated personal genome sequencing service for consumers. Built around physician-patient consultation, the service requires a physician s order to initiate the process, with genome sequencing performed using our CLIA-certified, CAP-accredited laboratory. We have established collaborations with partners to perform the secondary data analysis of a personal genome (such as calculation of disease risk, ancestry, and information on traits of interest). Some of our partners, as well as other companies in the direct-to-consumer market, use our genotyping technology and products to perform personal genotyping services.

Our Principal Technologies

Our unique technology platforms enable the scale of experimentation necessary for genome-wide discovery, target selection, and validation studies (see Figure 1 below). More than 2,500 customer-authored scientific publications have been published to date using these technologies, representing the efforts of a large and dynamic Illumina user community. Through rapid innovation, we believe we are changing the economics of genetic research, enabling projects once considered unapproachable to now be within reach of more investigators.

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Figure 1: Illumina Platform Overview:

Sequencing Technology

DNA sequencing is the process of determining the order of nucleotide bases (A, C, G, or T) in a DNA sample. Our HiSeq 2000, HiSeq 1000, Genome Analyzer IIx, and HiScanSQ systems represent a family of systems that we believe are setting the standard for productivity, cost-effectiveness, and accuracy among next-generation sequencing technologies. They are used by customers to perform whole-genome, de novo, and targeted re-sequencing of genomes, and to analyze specific gene regions and genes. In January 2011, we announced the MiSeq Personal Sequencing System, which will expand our family of sequencing systems to include a low-cost personal sequencing system that will provide individual researchers a sequencing platform that can go from purified DNA to analyzed data in as few as eight hours or can generate in excess of 1 gigabase (Gb) per run in slightly over a day.

Whole-genome sequencing determines an organism s complete DNA sequence. In de novo sequencing, the goal is to sequence a representative sample from a species never before sequenced. In targeted re-sequencing, a sequence of nucleotide bases is compared to a standard or reference sequence from a previously sequenced species to identify changes that reflect genetic variation. Understanding the similarities and differences in DNA sequence between and within species furthers our understanding of 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. In SBS, single stranded DNA is extended from a priming site, one base at a time, using reversible terminator nucleotides. These are DNA bases that can be added to a growing second strand, but which initially cannot be further extended. This means that at each cycle of the chemistry, only one base can be added. Each base that is added includes a fluorescent label that is specific to the particular base (A, C, G, or T). Following incorporation, the emitted light can be imaged to determine its color and thus determine the base. Once this is done, an additional step removes both the fluorescence and the blocking group that had prevented further extension of the second

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strand. This allows another base to be added, and the cycle can then be repeated. Our technology is capable of generating over 600 billion bases of DNA sequence from a single experiment with a single sample preparation. Key aspects of the SBS chemistry are the subject of significant intellectual property owned by us.

In our DNA sequencing systems, we apply the SBS biochemistry on microscopic clusters of DNA. Each cluster starts as a single DNA molecule fragment, typically a few hundred bases long, attached to the inside surface of a flow cell. We then use a proprietary amplification biochemistry to create copies of each starting molecule. As the copies are made, they are covalently linked to the surface, so they cannot diffuse away. After a number of cycles of amplification, each cluster might have approximately 1,000 copies of the original starting molecule, but still be only about a micron (one-millionth of a meter) in diameter. By making so many copies, the fluorescent signal from each cluster is significantly increased. Because the clusters are so small, hundreds of millions of clusters can be independently formed inside a single flow cell. This large number of clusters can then be sequenced simultaneously by alternate cycles of SBS biochemistry and fluorescent imaging. Sequence reads are analyzed using specially developed data analysis software.

With the ability to generate over 600 Gb of DNA sequence per run, our SBS sequencing technology provides researchers with the broadest range of applications and the opportunity to sequence even large mammalian genomes in days rather than weeks or years. Since the launch of our first Genome Analyzer in 2007, our systems have reduced the cost of sequencing by more than a factor of 100.

BeadArray Technology

Our BeadArray technology combines microscopic beads and a substrate in a proprietary manufacturing process to produce arrays that can perform many assays simultaneously, enabling large-scale analysis of genetic variation and biological function in a unique high-throughput, cost effective, and flexible manner. The arrays manufactured using BeadArray technology are imaged by our iScan and HiScanSQ systems for a broad range of DNA and RNA analysis applications including SNP discovery, SNP genotyping, CNV analysis, gene expression analysis, and methylation analysis.

Our proprietary BeadArray technology consists of microscopic silica beads, each bead covered with hundreds of thousands of copies of oligonucleotides, or oligos, that act as the capture sequences in one of our assays. We deploy our BeadArray technology on BeadChips; silicon wafers the size of a microscope slide, with varying numbers of sample sites per slide. BeadChips are chemically etched to create tens of millions of wells for each sample site.

We create unique bead pools, or sensors, for different DNA and RNA analysis applications by affixing thousands to millions of copies of a specific type of oligonucleotide molecule to each of the billions of microscopic beads in a batch. We make different batches of beads, with the beads in a given batch coated with one particular type of molecule. The particular molecules on a bead define that bead s function as a sensor. To form an array, a pool of coated beads is brought into contact with the array surface where they are randomly drawn into the wells, one bead per well. Because the beads assemble randomly into the wells, we perform a final procedure called decoding to determine which bead type occupies which well in the array. We employ several proprietary methods for decoding, which is a process that requires only a few steps to identify all the beads in the array. One beneficial by-product of the decoding process is a functional validation of each bead in the array. This quality control test characterizes the performance of each bead and can identify and eliminate use of any empty wells. We ensure that each bead type on the array is sufficiently represented by including multiple copies of each bead type. Multiple bead type copies improve the reliability and accuracy of the resulting data by allowing statistical processing of the results of identical beads.

An experiment is performed by preparing a sample, such as DNA, and introducing it to the array. The molecules in the sample bind to their matching molecules on the coated beads. The molecules in either the sample or on the bead are

labeled with fluorescent dye either before or after the binding, which can be detected by shining a laser on the BeadChip. This allows the detection of the molecules resulting in a quantitative analysis of the sample.

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Using our BeadArray technology, we achieve high-throughput analysis with a high density of test sites per array, and are able to format arrays in various configurations. We seek to maximize cost effectiveness by reducing consumption of expensive consumables and valuable samples and through the low manufacturing costs associated with our technologies. Our ability to vary the size, shape, and format of the well patterns and to create specific bead pools for different applications provides the flexibility to address multiple markets and market segments. These features enable our BeadArray technology to be applied to high-growth markets of SNP genotyping and CNV analysis, and have allowed us to be a key player in the gene expression market.

VeraCode Technology

Our proprietary VeraCode technology is a detection method for multiplex assays that require high precision, accuracy, and speed. When deployed on our BeadXpress Reader System, VeraCode technology provides a high-throughput solution for biomarker research and validation, pharmaceutical development, industrial and agriculture testing, clinical research, forensics, and molecular diagnostic assay development.

The VeraCode technology platform leverages the power of digital holographic codes to provide a detection method for multiplex assays. VeraCode enables low-cost multiplexing from 1 to 384-plex in a single well. The VeraCode technology consists of cylindrical glass beads (measuring 240 microns in length by 28 microns in diameter) inscribed with a unique digital holographic code to designate and track the specific analyte or genotype of interest throughout the multiplex reaction. When excited by a laser, each VeraCode bead emits a unique code image, allowing for quick and specific detection by the BeadXpress Reader System.

Depending on the desired multiplex levels, assays are created by pooling microbeads with code diversities from one to several hundred. Unlike traditional microarrays, the VeraCode microbeads are used in solution, which takes advantage of solution-phase kinetics for more rapid hybridization times, dramatically reducing the time to achieve results.

In December 2009, we began offering VeraCode Universal Capture and Carboxyl Beads as General Purpose Reagents (GPRs). These royalty-free VeraCode GPR Beads provide customers with a flexible, high-quality, cost-effective multiplexing platform to develop their own custom multiplex assays for genotyping, CNV, gene expression, methylation, and protein analysis studies.

Eco Real-Time PCR Technology

In April 2010, we purchased Helixis, Inc. and its novel real-time PCR technology, and in July 2010 introduced the Eco Real-Time PCR System to the market. Real-Time PCR (also known as quantitative PCR or qPCR) is used to amplify and simultaneously quantify a targeted DNA molecule, with applications in gene expression, viral quantification, array data validation, pathogen detection, and genotyping. The procedure follows the same steps as PCR, whereby thermal cycling (alternately heating and cooling the DNA sample from 20 to 40 times) causes the DNA to self-replicate, resulting in the doubling of DNA product with each cycle. Real-time PCR uses various fluorescent detection chemistries to enable the monitoring of the PCR reaction as it progresses. Data are collected at each cycle rather than at the end of the reaction, providing higher precision, increased sensitivity, increased dynamic range, and higher resolution.

The Eco System combines a proprietary thermal system, four-color multiplex capabilities, and a fine-tuned optical system to deliver accurate qPCR results. Its unique design provides superior thermal uniformity, supporting high-quality PCR performance for demanding applications such as high resolution melt (HRM) curve analysis used for SNP genotyping, DNA fingerprinting, species identification, HLA compatibility typing, allelic prevalence, and DNA methylation analysis. Measuring just over one cubic foot in size, we believe the Eco System s overall performance rivals larger, more expensive systems and provides us with a highly differentiated entry into this market.

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Our Products

Using our proprietary technologies, our products give our customers the ability to analyze the genome at any level of complexity, from whole-genome sequencing to low-multiplex assays, and enable us to serve a number of markets, including research, agriculture, forensics, pharmaceuticals, and molecular diagnostics.

The majority of our product sales consist of instruments and consumables (which include reagents, flow cells, and BeadChips) based on our proprietary technologies (see Figure 2 below). For the fiscal years ended January 2, 2011, January 3, 2010, and December 28, 2008, instrument sales comprised 36%, 34%, and 32%, respectively, of total revenues, and consumable sales represented 56%, 59%, and 58%, respectively, of total revenues.

Figure 2: Illumina Product Introduction Timeline:

Based on our proprietary SBS technology, our next-generation sequencing platforms are designed to meet the workflow, output, and accuracy demands of a full range of sequencing applications. Designed for high-throughput (up to 600 Gb per run and up to 80 Gb per day) sequencing, the HiSeq 2000 is fast, easy-to-use, and cost-effective, generating the sequence of two human genomes per run at 30× coverage for less than $5,000 (USD) in consumable cost per genome. Offering the same cost per data output and user experience, the HiSeq 1000 accommodates lower throughput needs, with an easy upgrade path to the HiSeq 2000. The Genome Analyzer IIx offers the simplest and fastest workflow for medium to high-throughput applications, generating up to 95 Gb per run. Introduced in January 2011, with first customer shipments expected mid-2011, our MiSeq Personal Sequencing System delivers the fastest time to an answer (as little as eight hours) and offers a breadth of sequencing applications in a compact and economical instrument to meet the needs of individual researchers.

Sequencing/Array Combination Platforms

The HiScanSQ combines our SBS sequencing technology and iScan microarray analysis instrumentation into one system, with a modular design that can evolve with changing research needs. This flexible system allows researchers to use our sequencing and array technologies interactively to bring increased power to their experiments.

Array Platforms

The iScan System is our dedicated array scanner that supports the rapid, sensitive, and accurate imaging of our array-based genetic analysis products. It incorporates high-performance lasers, optics, and detection systems, delivering sub-micron resolution and unmatched throughput rates. The iScan supports our Infinium, GoldenGate, DASL, gene expression, and methylation assays. Our BeadXpress Reader is designed for both small and high-throughput laboratories conducting molecular testing with multiplexed-based assays deployed on our VeraCode bead technology. It supports a wide range of applications, including DNA, RNA, and protein-based assays, and is FDA cleared for in vitro diagnostics with specific VeraCode FDA-cleared tests.

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Consumables

Our InfiniumHD Whole-Genome BeadChips represent our most technologically advanced multi-sample DNA analysis microarrays, enabling the interrogation of up to 2.5 million markers per sample, depending on the BeadChip. The most recent additions to the Omni family, the HumanOmni2.5 and HumanOmni1S BeadChips, provide comprehensive coverage of common and rare variants identified by the 1000 Genomes Project for performing rich GWAS projects. This product line also includes agriculturally relevant genome panels such as the BovineHD and MaizeSNP50 BeadChips.

For researchers who want to study focused genomic regions of interest, or are interested in organisms for which there are no standard products, we offer iSelect Custom Genotyping BeadChips. Easily developed to fit any experimental design, these SNP genotyping arrays can be used to investigate from 3,000 to 1,000,000 markers targeting any species.

Our GoldenGate Universal-32 Sample BeadChip provides a flexible customized solution for mid-plex genotyping assays performed on the iScan System or HiScan, while the VeraCode GoldenGate genotyping arrays are well-suited for low-plex genotyping on the BeadXpress Reader.

We have developed a variety of sample preparation and sequencing kits to simplify workflows and accelerate analysis. Some provide all the necessary consumables needed for analyses, such as our Standard Sequencing Kit (SBS chemistry on our sequencing platforms) and Infinium Assay Kit (array-based genotyping on the iScan System). Others support more discrete analyses, such as our Paired-End Genomic DNA Sample Prep Kit for streamlining library preparation for the generation of 200 500 kb insert paired-end reads for sequencing, gene expression, and epigenetic analysis. Our new TruSeq SBS Sequencing Kit enhances sequencing studies with our HiSeq 2000, HiSeq 1000, Genome Analyzer IIx and MiSeq systems, by enabling researchers to extend the read lengths, achieve higher Gb of mappable data, and deliver the highest yield of perfect reads to maximize the ability to accurately characterize the genome. Through our recent acquisition of Epicentre Technologies Corporation, we acquired the proprietary Nextera technology for next-generation sequencing library preparation. This technology will enable us to offer sequencing library preparation kits with lower sample input requirements that greatly simplify genetic analysis workflows (from 12 hours and 9 steps, to 2 hours and 4 steps) and significantly reduce the time from sample preparation to answer.

Real-time PCR Platforms

The Eco Real-Time PCR System provides fast, accurate qPCR results. Its icon-driven user interface simplifies experimental design and setup, while a straightforward workflow streamlines operation, enabling the system to perform qPCR on 48 samples in less than 40 minutes. As our first entry into the qPCR market, we believe the smaller, lower-cost, full-featured Eco System will enable more scientists to use real-time PCR technology in their research.

Our Services

In addition to the products we supply to customers, we also provide sequencing and genotyping services through our CLIA-certified, CAP accredited laboratory.

FastTrack Services

One of the ways in which we compete and extend the reach of our systems in the genetic analysis market is to deliver FastTrack Services that leverage our proprietary technologies and the expertise of our scientists to perform genotyping and sequencing services for our customers. We began offering genotyping services to academic institutions, biotechnology, and pharmaceutical customers in 2002. The in-house molecular geneticists that make up our FastTrack

Genotyping team help customers perform GWAS projects, linkage analysis, and fine mapping studies to meet their deadlines, employing a range of our products, including standard and custom GoldenGate, standard Infinium and Infinium HD, and iSelect Infinium assays. These projects range in size from a few hundred to over 10,000 samples.

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After five years of building an infrastructure to support genotyping services, we expanded to deliver sequencing services in 2007. We continue to combine the power of our proprietary SBS technology with the consultative and analytical capabilities of our FastTrack Sequencing team to execute high-value projects such as whole-genome sequencing, targeted resequencing, digital expression profiling, and small RNA discovery. Projects range from small sample sets requiring as little as one run, to large-scale projects such as de novo whole-genome sequencing that demand multiple instruments running in parallel for extended periods of time.

Service Partnership Programs

To complement our own service capabilities, we have developed partnered programs such as our Certified Service Providers (CSPro) and Illumina Genome Network (IGN) to create a world-wide network of Illumina technology-enabled service offerings that broaden our market reach. Illumina CSPro is a collaborative service partnership established between Illumina and leading genome centers and research laboratories to ensure the delivery of high-quality genetic analysis services. It provides a competitive advantage for service providers, while also ensuring that customers will receive Illumina data quality and service. To become a CSPro provider, participating laboratories must complete an Illumina certification process and undergo recertification on an annual basis. There are over 50 Illumina CSPro-certified organizations worldwide providing sequencing, genotyping, and gene expression services using our technologies and products.

Introduced in July 2010, the IGN links researchers interested in conducting large whole genome sequencing projects with leading institutes worldwide that possess our next-generation sequencing technology. IGN provides a cost-effective and dependable way to complete large sequencing projects. The genome sequencing service network comprises CSPro-certified academic and commercial organizations possessing 10 or more HiSeq 2000 or Genome Analyzer systems and committed to providing industry-leading turnaround times of as few as 12 weeks for 50 samples. Current members include the National Center for Genome Resources (NCGR) in Santa Fe, New Mexico and the Macrogen Genomic Medicine Institute in Seoul, Korea.

Individual Genome Sequencing

Introduced in June 2009, Illumina s Individual Genome Sequencing Service provides personal genome sequencing for consumers. It is performed in our CLIA-certified, CAP-accredited laboratory using our next-generation sequencing technology. The service is built around physician-patient consultation, with a physician s order required to initiate the process. The offering includes sequencing of an individual s DNA to 30-times depth, providing information on SNP variation and other structural characteristics of the genome such as insertions, deletions, and rearrangements. We are collaborating with a number of partners to provide secondary data analysis such as calculation of disease risk, ancestry, and information on traits of interest. The service requires individuals to follow our physician-mediated process, which involves pre-service consultation, patient consent, and a seven-day cooling off period during which the patient may withdraw consent. The final genome data is returned to the physician, who in turn delivers it to the consumer.

Intellectual Property

We have an extensive intellectual property portfolio, including, as of February 1, 2011, ownership of, or exclusive licenses to, 214 issued U.S. patents and 197 pending U.S. patent applications, including seven allowed applications that have not yet issued as patents. Our issued patents include those directed to various aspects of our arrays, assays, oligo synthesis, sequencing technology, instruments, and chemical detection technologies, and have terms that expire between 2011 and 2029. 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.

We also rely upon trade secrets, know-how, copyright, and trademark protection, as well as continuing technological innovation and licensing opportunities to develop and maintain our competitive position. Our success will depend in part on our ability to obtain patent protection for our products and processes, to preserve our trade secrets, to enforce our patents, copyrights and trademarks, to operate without infringing the proprietary rights of third parties, and to acquire licenses related to enabling technology or products.

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We are party to various exclusive and non-exclusive license agreements and other arrangements with third parties that grant us rights to use key aspects of our array and sequencing technologies, assay methods, chemical detection methods, reagent kits, and scanning equipment. We have exclusive licenses from Tufts University to patents that are directed to our BeadArray technology. These patents were filed by Dr. David Walt, who is a member of our board of directors, the Chairman of our Scientific Advisory Board, and one of our founders. Our exclusive licenses expire with the termination of the underlying patents, which will occur between 2011 and 2020. 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 while the agreement is in effect.

Research and Development

We have made substantial investments in research and development since our inception. We have assembled a team of skilled scientists and engineers who are specialists in biology, chemistry, informatics, instrumentation, optical systems, software, manufacturing, and other related areas required to complete the development of our products. Our research and development efforts have focused primarily on the tasks required to optimize our sequencing, BeadArray, VeraCode, and oligo synthesis technologies and to support commercialization of the products and services derived from these technologies.

Our research and development expenses for 2010, 2009, and 2008 (inclusive of charges relating to share-based compensation of $25.4 million, $20.0 million, and $14.1 million, respectively) were $177.9 million, $140.6 million, and $100.0 million, respectively. We expect research and development expense to increase during 2011 as we continue to expand our research and product development efforts.

Marketing and Distribution

Our current products address the genetic analysis portion of the life sciences market, in particular, experiments involving sequencing, SNP genotyping, and gene expression profiling. These experiments may be involved in many areas of biologic research, including basic human disease research, pharmaceutical drug discovery and development, pharmacogenomics, toxicogenomics, and animal and agricultural research. Our potential customers include leading genomic research centers, academic institutions, government laboratories, and clinical research organizations, as well as pharmaceutical, biotechnology, agrigenomics, and consumer genomics companies. The genetic analysis market is relatively new and emerging and its size and speed of development will ultimately be driven by, among other items:

- the ability of the research community to extract medically valuable information from genomics and to apply that knowledge to multiple areas of disease-related research and treatment;
- the availability of sufficiently low cost, high-throughput research tools to enable the large amount of experimentation required to study genetic variation and biological function; and
- the availability of government and private industry funding to perform the research required to extract medically relevant information from genomic analysis.

We market and distribute our products directly to customers in North America, Europe, Latin America, and the Asia-Pacific region. In each of these areas, we have dedicated sales, service, and application support personnel responsible for expanding and managing their respective customer bases. In addition, in certain markets within Europe, the Asia-Pacific region, Latin America, the Middle East, and South Africa we sell our products and provide services to customers through distributors that specialize in life science products. We expect to continue to increase our sales and distribution resources during 2011 and beyond as we launch a number of new products and expand the

number of customers that can use our products.

Manufacturing

We manufacture sequencing and array platforms, reagent kits, scanning equipment, and oligos. Our manufacturing capacity for consumables and instruments has grown during 2010 to support our increased

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customer demand. We are also focused on continuing to enhance the quality and manufacturing yield of our BeadChips and flow cells, in particular. To continue to increase throughput and improve the quality and manufacturing yield as we increase the complexity of our products, we are exploring ways to continue increasing the level of automation in the manufacturing process. We adhere to access and safety standards required by federal, state, and local health ordinances, such as standards for the use, handling, and disposal of hazardous substances.

Raw Materials

Our manufacturing operations require a wide variety of raw materials, electronic and mechanical components, chemical and biochemical materials, and other supplies. We have multiple commercial sources for many of our components and supplies; however, there are some raw materials and components that we obtain from single source suppliers. To mitigate potential risks arising from single source suppliers, we believe that we can redesign our products for alternative components or use alternative reagents if required. In addition, while we generally attempt to keep our inventory at minimal levels, we purchase incremental inventory as circumstances warrant to protect our supply chain.

Competition

Although we believe that our products and services provide significant advantages over products and services currently available from other sources, we expect to continue to encounter intense competition from other companies that offer products and services for sequencing, SNP genotyping, gene expression, and molecular diagnostics markets. These include companies such as Affymetrix, Inc.; Agilent Technologies, Inc.; Beckman Coulter, Inc.; Complete Genomics, Inc.; Helicos BioSciences Corporation; General Electric Company; Life Technologies Corporation; Luminex Corporation; Pacific Biosciences of California, Inc.; QIAGEN N.V.; Roche Diagnostics Corp.; and Sequenom, Inc., among others. Some of these companies have or will have substantially greater financial, technical, research, and other resources and larger, more established marketing, sales, distribution, and service organizations than we do. 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. Each of these markets is very competitive and we expect new competitors to emerge and the intensity of competition to increase. In order to effectively compete with these companies, we will need to demonstrate that our products have superior throughput, cost, and accuracy advantages over competing products.

Segment and Geographic Information

We are organized in two business segments, Life Sciences and Diagnostics. Our Life Sciences Business Unit includes all products and services related to the research market, namely the product lines based on our sequencing, BeadArray, VeraCode, and real-time PCR technologies. Our Diagnostics Business Unit focuses on the emerging opportunity in molecular diagnostics. During all periods presented, our Diagnostics Business Unit had limited activity. Accordingly, our operating results for both units are reported on an aggregate basis as one operating segment. We will begin reporting in two segments once revenues, operating profit or loss, or assets of the Diagnostics Business Unit exceed 10% of the consolidated amounts.

We currently sell our products to a number of customers outside the United States, including customers in other areas of North America, Europe, and the Asia-Pacific region. Shipments to customers outside the United States totaled $403.8 million, or 45% of our total revenue, during 2010, compared to $319.1 million, or 48%, and $293.2 million, or 51%, in 2009 and 2008, respectively. Sales to customers outside of the United States were generally denominated in U.S. dollars. In 2008, we reorganized our international structure to establish more efficient channels among product development, product manufacturing, and sales. The reorganization increased our foreign subsidiaries anticipated dependence on the U.S. entity for management decisions, financial support, production assets, and inventory thereby

making the foreign subsidiaries more of a direct and integral component of the U.S. entity s operations. As a result, we reassessed the primary economic environment of our foreign subsidiaries and determined the subsidiaries are more U.S. dollar based, resulting in a U.S. dollar functional currency determination. We expect that sales to international customers will continue to be an important and growing source of revenue. See note 13. Segment Information,

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Geographic Data, and Significant Customers in Part II, Item 8, of this Form 10-K for further information concerning our foreign and domestic operations.

Backlog

Our backlog was $299.0 million and $227.6 million at January 2, 2011 and January 3, 2010, 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 an estimated 90% of the backlog as of January 2, 2011 to be shipped within the fiscal year ending January 1, 2012. Although we generally recognize revenue upon the transfer of title to a customer, we may be required to defer the recognition of revenue even after title transfer depending on the specific arrangement with a customer and the applicable accounting treatment. A material portion of our backlog at January 2, 2011 is associated with a large order we received from one customer at the end of 2009 for which we are using operating lease accounting that requires us to recognize revenue over a period of three years with the majority of that revenue recognized in 2011 and 2012.

Seasonality

Historically, customer purchasing patterns have not shown significant seasonal variation, although demand for our products is usually lowest in the first quarter of the calendar year and highest in the third quarter of the calendar year as a result, in part, of U.S. academic customers spending unused budget allocations before the end of the U.S. government s fiscal year on September 30 of each year.

Environmental Matters

We are committed to the protection of our employees and the environment. Our operations require the use of hazardous materials that subject us to a variety of federal, state, and local environmental and safety laws and regulations. We believe 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.

Government Regulation

Our products are not currently subject to FDA clearance or approval if they are not intended to be used for the diagnosis 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 molecular diagnostic products, regulation by governmental authorities in the United States and other countries will be a significant factor in the development, testing, production, and marketing of such products. Products that we develop in the molecular diagnostic markets, depending on their intended use, will be regulated as medical devices by the FDA and comparable agencies of other countries and may require either receiving clearance following a pre-market notification process, also known as a 510(k) clearance, or premarket approval (PMA), from the FDA prior to marketing. Obtaining the requisite regulatory approvals can be expensive and may involve considerable delay.

The shorter 510(k) clearance process, which generally takes from three to six months after submission, but can take significantly longer, may be utilized if it is demonstrated that the new product is substantially equivalent to a similar product that has already been cleared by the FDA. The longer PMA process is much more costly, uncertain, and generally takes from nine months to two years after filing. Because we cannot ensure that any molecular diagnostic products that we develop will be subject to the shorter 510(k) clearance process, or will ultimately be approved at all,

the regulatory approval process for such products may be significantly delayed and may be significantly more expensive than anticipated. If we fail to obtain, or experience significant delays in obtaining, regulatory approvals for molecular diagnostic products that we

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develop, we may not be able to launch or successfully commercialize such products in a timely manner, or at all.

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.

In addition, the regulatory approval or clearance process required to manufacture, market, and sell our existing and future products that are intended for, and marketed and labeled as, Research Use Only, or RUO, is uncertain if such products are used or could be used, even without our consent, for the diagnosis of disease. 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.

Employees

As of January 2, 2011, we had approximately 2,100 employees. None of our employees is represented by a labor union. We consider our employee relations to be positive. Our success will depend in large part upon our ability to attract and retain employees. In addition, we employ a number of temporary and contract employees. We face competition in this regard from other companies, research and academic institutions, government entities, and other organizations.

ITEM 1A. ***Risk Factors***

Our business is subject to various risks, including those described below. In addition to the other information included in this Form 10-K, the following issues could adversely affect our operating results or our stock price.

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 life sciences companies that design, manufacture, and market products for analysis of genetic variation and biological function and other applications using a wide-range of competing technologies. 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 our technology obsolete or uneconomical. Some of our competitors have greater financial and personnel resources, broader product lines, a more established customer base, and more experience in research and development than we do. Furthermore, life sciences 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 molecular diagnostics products is currently limited and highly competitive, with several large companies already having significant market share, intellectual property portfolios, and regulatory expertise. Established 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.

Our success depends upon the continued emergence and growth of markets for analysis of genetic variation and biological function.

We design our products primarily for applications in the life sciences, agricultural, and pharmaceutical industries. The usefulness of our technologies depends in part upon the availability of genetic data and its usefulness in identifying or treating disease. We are focusing on markets for analysis of genetic variation and

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biological function, namely sequencing, genotyping, and gene expression profiling. These markets are new and emerging, and they may not develop as quickly as we anticipate, or reach their full potential. Other methods of analysis of genetic variation and biological function may emerge and displace the methods we are developing. Also, researchers may not be able to successfully analyze raw genetic data or be able to convert raw genetic data into medically valuable information. For instance, demand for our microarray products may be adversely affected if researchers fail to find meaningful correlations between genetic variation, such as SNPs, and disease susceptibility through genome wide association studies. In addition, factors affecting research and development spending generally, such as changes in the regulatory environment affecting life sciences and pharmaceutical companies, and changes in government programs that provide funding to companies and research institutions, could harm our business. If useful genetic data is not available or if our target markets do not develop in a timely manner, demand for our products may grow at a slower rate than we expect, and we may not be able to sustain profitability.

If the quality of our products does not meet our customers expectations, then our reputation could suffer and ultimately our sales and operating earnings could be negatively impacted.

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. Because our instruments and consumables are highly complex, the occurrence of defects may increase as we continue to introduce new products and services and as we rapidly scale up manufacturing to meet increased demand for our products and services. Although we have established internal procedures to minimize risks that may arise from product quality issues, there can be no assurance that we will be able to eliminate or mitigate occurrences of these issues and associated liabilities. In addition, 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. Finding solutions to quality issues can be expensive and we may incur significant costs or lost revenue in connection with, for example, shipment holds, product recalls, and warranty or other service obligations. In addition, quality issues can impair our relationships with new or existing customers and adversely affect our brand image, and our reputation as a producer of high quality products could suffer, which could adversely affect our business, financial condition, or results of operations.

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

Our target markets are characterized by rapid technological change, evolving industry standards, changes in customer needs, existing and emerging competition, strong price competition, and frequent new product introductions. Accordingly, our continued growth depends on continuously 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, our products and services will become dated, and we could lose our competitive position in the markets that we serve as customers purchase new products offered by our competitors. We believe that successfully introducing new products and technologies in our target markets on a timely basis provides a significant competitive advantage because customers make an investment of time in selecting and learning to use a new product and may be reluctant to switch once that selection is made.

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, we may lose market share to our competitors, which will be difficult or impossible to regain. An inability, for technological or other reasons, to successfully develop and introduce new products 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. We cannot ensure 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,

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achieve market acceptance, or compete successfully with competing technologies. Some of the factors affecting market acceptance of new products and services include:

availability, quality, and price relative to competing products and services;

the functionality and performance of new and existing products and services;

the timing of introduction of the new product or service relative to competing products and services;

scientists and customers opinions of the utility of the new product or service;

citation of the new product or service in published research;

regulatory trends and approvals; and

general trends in life sciences research and applied markets.

We may also have to write off excess or obsolete inventory if sales of our products are not consistent with our expectations or the market requirements for our products change due to technical innovations in the marketplace.

If we do not successfully manage the development 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. 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 our product launch date. In addition, we may experience difficulty in managing or forecasting customer reactions, purchasing decisions, or transition requirements or programs (such as trade-in programs) with respect to newly launched products (or products in development) relative to our existing products, which could adversely affect sales of our existing products. The expenses or losses associated with unsuccessful product development or launch activities or lack of market acceptance of our new products could adversely affect our business, financial condition, or results of operations.

Reduction or delay in research and development budgets and government funding may adversely affect our revenue.

A substantial portion of our revenue is derived from genomic research centers, academic institutions, government laboratories, and clinical research organizations, as well as pharmaceutical, biotechnology, agrigenomics, and consumer genomics companies, and their capital spending budgets can have a significant effect on the demand for our products and services. These budgets are based on a wide variety of factors, including the allocation of available resources to make purchases, funding from government sources, the spending priorities among various types of research equipment, and policies regarding capital expenditures during recessionary periods. Any decrease in capital spending or change in spending priorities of our customers could significantly reduce our revenue. Moreover, we have no control over the timing and amount of purchases by our customers, and as a result, revenue from these sources may vary significantly due to factors that can be difficult to forecast. Any delay or reduction in purchases by our customers or our inability to forecast fluctuations in demand could harm our future operating results.

We depend on third-party manufacturers and suppliers for 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 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, components and materials that currently are available from a limited number of sources, and, in the case of some components

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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 components or materials timely or in sufficient quantities or qualities, or at all, in order to meet demand for our products. We may need to enter into contractual relationships with manufacturers for commercial-scale production of some of our products, or develop these capabilities internally, and we cannot ensure that we will be able to do this on a timely basis, in sufficient quantities, or on commercially reasonable terms. In addition, the lead time needed to establish a relationship with a new supplier 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 or at all. In addition, the manufacture or shipment of our products may be delayed or interrupted if the quality of the components or materials supplied by our vendors does not meet our requirements. 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 we are unable to increase our manufacturing capacity and develop and maintain operation of our manufacturing capability, we may not be able to launch or support our products in a timely manner, or at all.

We continue to rapidly increase our manufacturing capacity to meet the anticipated demand for our products. Although we have significantly increased our manufacturing capacity and we believe we have plans in place sufficient to ensure we have adequate capacity to meet our business plan for 2011, there are uncertainties inherent in expanding our manufacturing 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, 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), prevent us from achieving expected performance levels, or cause us to set prices that hinder wide adoption by customers.

Additionally, we currently manufacture in a limited number of locations. Our manufacturing facilities are located in San Diego and Hayward, California; Singapore; and Little Chesterford, United Kingdom. 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 were to cause our operations to fail, we may be unable to manufacture our products, provide our services, or develop new products.

Also, many of our manufacturing processes are automated and are controlled by our custom-designed Laboratory Information Management System (LIMS). Additionally, the decoding process in our array manufacturing requires significant network and storage infrastructure. If either our LIMS system or our networks or storage infrastructure were to fail for an extended period of time, it may adversely impact our ability to manufacture our products on a timely basis and could prevent us from achieving our expected shipments in any given period.

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

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numerous risks and operational, financial, and managerial challenges, including the following, any of which could adversely affect our business, financial condition, or results of operations:

- difficulties in integrating new operations, technologies, products, and personnel;
- lack of synergies or the inability to realize expected synergies and cost-savings;
- 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, 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. We cannot ensure 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.

The timing and extent of funding provided by the American Recovery and Reinvestment Act of 2009 (the Recovery Act) could adversely affect our business, financial condition, or results of operations.

The Recovery Act was enacted in February 2009 to provide stimulus to the U.S. economy in the wake of the economic downturn. As part of the Recovery Act legislation, over $10 billion in funding was provided to the National Institute of Health to support the advancement of scientific research. A portion of the stimulus funding may support the analysis of genetic variation and biological function and have a significant positive impact on our business. If our customers are unable to obtain stimulus money they may reduce their research and development budgets resulting in a decrease in demand for our products. In addition, it is unclear what will happen to demand for our products after the stimulus funds from the Recovery Act have been allocated and spent. A decline in demand will reduce our revenues,

which would adversely affect our business, financial condition, or results of operations.

Unfavorable global economic conditions could adversely affect our business, financial condition, or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. The recent global financial crisis caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, such as the recent global financial crisis, could result in a variety of risks to our business, including, in particular, reductions or delays in planned improvements to healthcare systems, research and development funding, and purchases of our products and

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services, or cost-containment efforts by governments and private organizations that could adversely affect our business, financial condition, or results of operations. In addition, the liquidity of our investment portfolio could be impaired such as when more than $50 million of auction rate securities that we held for investment became illiquid in February 2008 because their scheduled auctions failed. Furthermore, as is the case for almost any other business, we face the following risks from a severe or prolonged economic downturn:

- severely limited access to financing over an extended period of time, which may limit our ability to fund our growth strategy, could result in a need to delay capital expenditures, acquisitions, or research and development projects;
- losses from our investment portfolio or to a counterparty s inability to fulfill its payment obligations;
- inability to refinance existing debt at competitive rates, reasonable terms, or sufficient amounts; and
- increased volatility or adverse movements in foreign currency exchange rates.

In addition, certain of our customers may face challenges gaining timely access to sufficient credit, which could result in an impairment of their ability to make timely payments to us. If that were to occur, our allowance for doubtful accounts and our days sales outstanding could increase. Additionally, these economic conditions may cause our smaller suppliers to be unable to supply in a timely manner sufficient quantities of customized components, which would impair our ability to manufacture on schedule and at commercially reasonable costs. Suppliers may also extend lead times, limit supplies, or increase prices due to capacity constraints or other factors.

An inability to manage our growth or the expansion of our operations could adversely affect our business, financial condition, or results of operations.

Our business has grown rapidly, with total revenues increasing from $73.5 million for the year ended January 1, 2006 to $902.7 million for the year ended January 2, 2011 and with the number of employees increasing from approximately 375 to approximately 2,100 during the same period. We expect to continue to experience rapid and substantial growth in order to achieve our operating plans. The rapid expansion of our business and addition of new personnel may place a strain on our management and operational systems. Our ability to effectively manage our operations and growth requires us to continue to expend funds to enhance our operational, financial, and management controls, reporting systems, and procedures and to attract and retain sufficient numbers of talented employees on a global basis. If we are unable to scale-up and implement improvements to our manufacturing process and control systems in an efficient or timely manner, or if we encounter deficiencies in existing systems and controls, then we will not be able to make available the products required to successfully commercialize our technology. Our future operating results will depend on the ability of our management to continue to implement and improve our research, product development, manufacturing, sales and marketing, and customer support programs, enhance our operational and financial control systems, expand, train, and manage our employee base, integrate acquired businesses, and effectively address new issues related to our growth as they arise. There can be no assurance that we will be able to manage our recent or any future expansion or acquisition successfully, and any inability to do so could adversely affect our business, financial condition, or results of operations.

If we lose our key personnel or are unable to attract and retain additional personnel, we may be unable to achieve our goals.

We are highly dependent on our management and scientific personnel, including Jay Flatley, our President and Chief Executive Officer. The loss of their services could adversely impact our ability to achieve our business objectives. In addition, we will need to hire additional qualified personnel with expertise in molecular biology, chemistry, biological

information processing, sales, marketing, and technical support. We compete for qualified management and scientific personnel with other life science companies, universities, and research institutions, particularly those focusing on genomics. Competition for these individuals, particularly in the San Diego and San Francisco area, is intense, and the turnover rate can be high. Failure to attract and retain management and scientific personnel would prevent us from pursuing collaborations or developing our

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products or technologies. Additionally, integration of acquired companies and businesses can be disruptive, causing key employees of the acquired business to leave. Further, we use stock options and restricted stock units to provide incentives for our key personnel to remain with us and to align their interests with those of the Company by building long-term stockholder value. If our stock price decreases, the value of these equity awards decreases and therefore reduces a key employee s incentive to stay.

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

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. If we do not protect our intellectual property adequately, competitors may be able to use our technologies and thereby erode our competitive advantage. 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.

The patent positions of companies developing tools for the life sciences, agricultural, and pharmaceutical industries, including our patent position, generally are uncertain and involve complex legal and factual questions. 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. In addition, 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 intend to apply for patents covering our technologies and products as we deem appropriate. However, our patent applications may be challenged and may not result in issued patents or may be invalidated or narrowed in scope after they are issued. Questions as to inventorship or ownership may also arise. 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, we may lose some competitive advantage as others develop competing products, and, as a result, we may lose 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. There is also the risk that others may independently develop similar or alternative technologies or design around our patented technologies. Also, our patents may 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.

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. Among other things, we seek to protect our trade secrets and confidential information by entering into confidentiality agreements with employees, collaborators, and consultants. There can be no assurance that any confidentiality agreements that we have with our employees, collaborators, and consultants will provide meaningful protection for our trade secrets and confidential information or will provide adequate remedies in the event of unauthorized use or disclosure of such information. Accordingly, there also can be no assurance that our trade secrets will not otherwise become known or be independently developed by competitors.

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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, 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 entry into those markets. 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 import 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. 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.

Doing business internationally creates operational and financial risks for our business.

Conducting and launching operations on an international scale requires close coordination of activities across multiple jurisdictions and time zones 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 are focused on expanding our international operations in key markets. We have sales offices located internationally throughout Europe, the Asia-Pacific region, and Brazil as well as manufacturing facilities in the United Kingdom and Singapore. During 2010, the majority of our sales to international customers and purchases of raw materials from international suppliers were denominated in U.S. dollars. Shipments to customers outside the United States comprised 45%, 48%, and 51% of our total revenue for the years ended January 2, 2011, January 3, 2010, and December 28, 2008, respectively. We intend to continue to expand our international presence by selling to customers located outside of the United States and we expect the total amount of non-U.S. sales to continue to grow.

International sales entail a variety of risks, including:

- 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;
- currency exchange fluctuations;
- challenges in staffing and managing foreign operations;
- tariffs and other trade barriers;

unexpected changes in legislative or regulatory requirements of foreign countries into which we sell our products;

difficulties in obtaining export licenses or in overcoming other trade barriers and restrictions resulting in delivery delays; and

significant taxes or other burdens of complying with a variety of foreign laws.

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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 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. The recent global financial downturn has 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 and the possible loss of the tax deduction on our outstanding convertible notes.

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 laws or tax rates, changes in the level of non-deductible expenses (including share-based compensation), 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 IRS or other taxing authority disagrees with the positions taken by the Company on its 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.

In addition, we could lose some or all of the tax deduction for interest expense associated with our $390 million aggregate principal amount of convertible notes due in 2014 if these notes are not subject to the special Treasury Regulations governing contingent payment debt instruments, the notes are converted, or we invest in non-taxable investments.

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 currently subject to FDA clearance or approval if they are not intended to be used for the diagnosis of disease. However, as we expand our product line to encompass products that are intended to be used for the diagnosis of disease, certain of our products are likely to become subject to regulation by the FDA, or comparable agencies of other countries, including requirements for regulatory 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.

Molecular diagnostic products, in particular, depending on their intended use, may be regulated as medical devices by the FDA and comparable agencies of other countries and may require either receiving clearance from the FDA

following a pre-market notification process or premarket 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 molecular diagnostic products that we develop, we may not be able to launch or successfully commercialize such products in a timely manner, or at all.

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In addition, the regulatory approval or clearance process required to manufacture, market, and sell our existing and future products that are intended for, and marketed and labeled as, Research Use Only, or RUO, is uncertain if such products are used or could be used, even without our consent, for the diagnosis of disease. 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 operating results may vary significantly from period to period, and we may not be able to sustain operating profitability.

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 impact of seasonal spending patterns, the timing and size of research projects our customers perform, the timing of our customers funding, changes in overall spending levels in the life sciences industry, and other unpredictable factors that may affect customer ordering patterns. 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. While we anticipate future growth, there is some uncertainty as to the timing of revenue recognition on a quarterly basis. This is because a substantial portion of our quarterly revenue is typically recognized in the last month of a quarter and because the pattern for revenue generation during that month is normally not linear, with a concentration of orders in the final week of the quarter. In light of that, our revenue cut-off and recognition procedures, together with our manufacturing and shipping operations, may experience increased pressure and demand during the time period shortly before the end of a fiscal quarter.

A large portion of our expenses is relatively fixed, including expenses for facilities, equipment, and personnel. In addition, we expect operating expenses to continue to increase significantly in absolute dollars, and we expect that our research and development and selling and marketing expenses will increase at a higher rate in the future as a result of the development and launch of new products. Accordingly, our ability to sustain profitability will depend, in part, on the rate of growth, if any, of our revenue and on the level of our expenses, and if revenue does not grow as anticipated, we may not be able to maintain annual or quarterly profitability. Any significant delays in the commercial launch of our products, unfavorable sales trends in our existing product lines, or impacts from the other factors mentioned above, could adversely affect our future revenue growth or cause a sequential decline in quarterly revenue. In addition, non-cash share-based compensation expense and expenses related to prior and future acquisitions are also likely to continue to adversely affect our future profitability. Due to the possibility of significant fluctuations in our revenue and expenses, particularly from quarter to quarter, we believe that quarterly comparisons of our operating results are not a good indication of our future performance. If our operating results fluctuate or do not meet the expectations of stock market analysts and investors, our stock price could decline.

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.

Changes in accounting standards and subjective assumptions, estimates, and judgments by management related to complex accounting matters could significantly affect our financial results or financial condition.

Generally accepted accounting principles and related accounting pronouncements, implementation guidelines, and interpretations with regard to a wide range of matters that are relevant to our business, such as revenue recognition, asset impairment and fair value determinations, inventories, business combinations and intangible asset valuations, and litigation, are highly complex and involve many subjective assumptions, estimates, and judgments. Changes in these rules or their interpretation or changes in underlying assumptions, estimates, or judgments could significantly

change our reported or expected financial performance or financial condition.

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Ethical, legal, and social concerns related to the use of genetic information could reduce demand for our products or services.

Our products may be used to provide genetic information about humans, agricultural crops, 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 the genetic engineering or modification of agricultural products or testing genetic predisposition for certain medical conditions. 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.

The relocation of our corporate headquarters, which is expected to begin in late 2011, could adversely affect our business, financial condition, or results of operations.

During the fourth quarter of 2010, we entered into a lease agreement for a new corporate headquarters to meet our current and long-term expansion needs. We expect to begin relocating most of our San Diego-based operations to this new facility in late 2011. In addition to incurring a one-time non-cash charge of approximately $30 million related to the remaining lease obligations for our current corporate headquarters, we expect to incur additional expenses associated with the relocation itself. Although we expect to sublease our current corporate headquarters, we will continue to be subject to rent and lease obligations for our current facility through October 2023. Additional risks associated with the relocation, including, in particular, the relocation of oligo manufacturing that currently takes place at our corporate headquarters, may include delays in receiving necessary permits and approvals and business disruption as complex manufacturing equipment is moved.

Our strategic equity investments may result in losses.

We periodically make strategic equity investments in various public and private companies with businesses or technologies that may complement our business. The market values of these strategic equity investments may fluctuate due to market conditions and other conditions over which we have no control. Other-than-temporary declines in the market price and valuations of the securities that we hold in other companies would require us to record losses in proportion to our ownership interest. This could result in future charges to our earnings. It is uncertain whether or not we will realize any long-term benefits associated with these strategic investments.

Conversion of our outstanding convertible notes may result in losses.

As of January 2, 2011, we had $390.0 million aggregate principal amount of convertible notes outstanding. The notes are convertible into cash, and if applicable, shares of our common stock under certain circumstances, including trading price conditions related to our common stock. If the trading price of our common stock remains significantly above the conversion price of $21.83 per share, we expect that noteholders will elect to convert the notes. Upon conversion, we are required to record a gain or loss for the difference between the fair value of the notes to be extinguished and their corresponding net carrying value. The fair value of the notes to be extinguished depends on our current incremental borrowing rate. The net carrying value of our notes has an implicit interest rate of 8.27%. If our incremental borrowing rate at the time of conversion is lower than the implied interest rate of the notes, we will record a loss in our consolidated statement of income during the period in which the notes are converted.

Item 1B. ***Unresolved Staff Comments.***

None.

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Item 2. ***Properties.***

The following chart summarizes the facilities we lease as of January 2, 2011, 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 that we will be able to locate additional facilities as needed.

Location	Approximate Square Feet	Operation	Lease Expiration Dates	
San Diego, CA	314,000	R&D, Manufacturing, Storage, Distribution and Administrative	2011	2023
Hayward, CA	109,000	R&D, Manufacturing and Administrative	2013	2014
Singapore	61,000	Manufacturing and Administrative	2013	2015
Eindhoven, the Netherlands	54,000	Distribution and Administrative	2011	2015
Little Chesterford, United Kingdom	41,500	R&D, Manufacturing and Administrative		2024
Other	34,000	R&D, Manufacturing, Sales and Administrative	2011	2014

In December 2010, we agreed to lease a facility in San Diego, California that will serve as our new corporate headquarters, which includes facilities for research and development and manufacturing. The lease covers existing buildings with approximately 346,600 rentable square feet and an additional building with approximately 123,400 rentable square feet to be built in the future. The lease has an initial term of 20 years. We excluded this lease from the table above as the lease will not commence until the second half of 2011. We plan to relocate from our present corporate headquarters to the new facility and expect the transition to begin during the fourth quarter of 2011.

Item 3. ***Legal Proceedings.***

From time to time, we are party to litigation and other legal proceedings in the ordinary course, and incidental to the conduct, of our business. While the results of any litigation or other legal proceedings are uncertain, management does not believe the ultimate resolution of any pending legal matters is likely to have a material adverse effect on our financial position or results of operations.

Item 4. ***Reserved.***

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PART II

Item 5. ***Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.***

Market Information

Our common stock has been quoted on The NASDAQ Global Select Market under the symbol ILMN since July 28, 2000. Prior to that time, there was no public market for our common stock. 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.

	2010		2009	
	High	Low	High	Low
First Quarter	$ 40.90	$ 29.76	$ 38.95	$ 23.29
Second Quarter	45.72	36.70	39.92	33.17
Third Quarter	50.93	41.15	41.56	30.73
Fourth Quarter	66.59	47.70	44.07	25.59

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 and the NASDAQ Biotechnology Index for the same period. The graph assumes that $100 was invested on January 1, 2006 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.

Holders

As of February 4, 2011 we had 348 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. In addition, the indenture for our convertible senior notes due 2014, which notes are convertible into

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cash and, in certain circumstances, shares of our common stock, requires us to increase the conversion rate applicable to the notes if we pay any cash dividends.

Purchases of Equity Securities by the Issuer

In July 2010, our board of directors authorized a $200 million stock repurchase program, with $100 million allocated to repurchasing our common stock under a 10b5-1 plan over a 12 month period and $100 million allocated to repurchasing our common stock at management s discretion during open trading windows. The following table summarizes shares repurchased pursuant to this program during the quarter ended January 2, 2011:

Period	Total Number of Shares Purchased(1)	Average Price Paid per Share(1)	Total Number of Shares Purchased as Part of Publicly Announced Programs(1)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Programs(1)
October 4 October 31, 2010	160,517	$ 49.84	160,517	$ 176,002,121
November 1 November 28, 2010	139,738	57.25	139,738	168,002,146
November 29, 2010 January 2, 2011	188,747	63.58	188,747	156,002,505
Total	489,002	$ 57.86	489,002	$ 156,002,505

(1) All shares purchased during the quarter ended January 2, 2011 were in connection with our stock repurchase programs authorized by our board of directors in July 2010. All stock repurchases were made under the 10b5-1 trading program.

Sales of Unregistered Securities

None during the fourth quarter of fiscal 2010.

Item 6. ***Selected Financial Data.***

The following table sets forth selected historical consolidated financial data for each of our last five fiscal years during the period ended January 2, 2011.

Statement of Operations Data

	Years Ended				
	January 2,	January 3,	December 28,	December 30,	December 31,

	2011 (52 weeks)	2010 (53 weeks)	2008 (52 weeks)	2007 (52 weeks)	2006 (52 weeks)
	(In thousands, except per share data)				
Total revenue	$ 902,741	$ 666,324	$ 573,225	$ 366,799	$ 184,586
Income (loss) from operations(1),(2)	211,654	125,597	80,457	(301,201)	37,812
Net income (loss)	124,891	72,281	39,416	(287,305)	39,968
Net income (loss) per share:					
Basic	$ 1.01	$ 0.59	$ 0.34	$ (2.65)	$ 0.45
Diluted	$ 0.87	$ 0.53	$ 0.30	$ (2.65)	$ 0.41
Shares used in calculating net income (loss) per share:					
Basic	123,581	123,154	116,855	108,308	89,002
Diluted	143,433	137,096	133,607	108,308	97,508

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Balance Sheet Data

	January 2, 2011	January 3, 2010	December 28, 2008	December 30, 2007	December 31, 2006
			(In thousands)		
Cash, cash equivalents and short-term investments(2),(3),(4),(5)	$ 894,289	$ 693,527	$ 640,075	$ 386,082	$ 130,804
Working capital	723,881	540,354	483,113	397,040	159,950
Total assets	1,839,113	1,429,937	1,327,171	929,981	300,584
Long-term debt, current portion(5)	311,609	290,202	276,889	16	
Long-term debt, less current portion(5)				258,007	
Total stockholders equity(1),(2),(3),(4)	1,197,675	864,248	798,667	353,927	247,342

In addition to the following notes, see Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations and Item 8, Financial Statements and Supplementary Data for further information regarding our consolidated results of operations and financial position for periods reported therein and for known factors that will impact comparability of future results.

(1) The consolidated financial statements include results of operations of acquired companies commencing on their respective acquisition dates. As a result of prior acquisitions completed, we recorded charges to write-off acquired in-process research and development, or IPR&D, of $1.3 million, $11.3 million, $24.7 million, and $303.4 million during the years ended January 2, 2011, January 3, 2010, December 28, 2008, and December 30, 2007, respectively. See note 3. Acquisitions in Part II, Item 8, Notes to Consolidated Financial Statements for further information.

(2) For the year ended December 30, 2007, we recorded a $54.0 million charge for the settlement of our litigation with Affymetrix. In January 2008, we paid $90.0 million related to the Affymetrix settlement.

(3) In August 2008, a total of 8,050,000 shares were sold to the public at a public offering price of $43.75 per share, raising net proceeds to us of $342.7 million. See note 9. Stockholders Equity in Part II, Item 8, Notes to Consolidated Financial Statements.

(4) For the years ended January 2, 2011, January 3, 2010, December 28, 2008 and December 30, 2007, we repurchased 0.8 million, 6.1 million, 3.1 million and 14.8 million shares, respectively, of common stock for $44.0 million, $175.1 million, $70.8 million and $251.6 million, respectively. See note 9. Stockholders Equity in Part II, Item 8, Notes to Consolidated Financial Statements.

(5) In February 2007, we issued $400.0 million principal amount of 0.625% Convertible Senior Notes due 2014. Due to the convertibility feature, we classify the principal amount of the notes as current in our consolidated balance sheet. See note 7. Convertible Senior Notes in Part II, Item 8, Notes to Consolidated Financial Statements for

further information.

Item 7. ***Management s Discussion and Analysis of Financial Condition and Results of Operations.***

Certain statements set forth below constitute forward-looking statements. See Special Note Regarding Forward-Looking Statements for additional factors relating to such statements, and see Risk Factors in Item 1A of this report for a discussion of certain risk factors applicable to our business, financial condition, and results of operations.

Business Overview

We are a leading developer, manufacturer, and marketer of life science tools and integrated systems for the analysis of genetic variation and function. Using our proprietary technologies, we provide a comprehensive line of genetic analysis solutions, with products and services that serve a broad range of highly interconnected markets, including sequencing, genotyping, gene expression, and molecular diagnostics. Our customers include

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leading genomic research centers, academic institutions, government laboratories, and clinical research organizations, as well as pharmaceutical, biotechnology, agrigenomics, and consumer genomics companies.

Our broad portfolio of systems, consumables, and analysis tools are designed to simplify genetic analysis. This portfolio addresses the range of genomic complexity, price points, and throughputs, enabling researchers to select the best solution for their scientific challenge. In 2007, through our acquisition of Solexa, Inc., we acquired our proprietary sequencing by synthesis (SBS) technology that is at the heart of our leading-edge sequencing instruments. These systems can be used to efficiently perform a range of nucleic acid (DNA, RNA) analyses on large numbers of samples. For more focused studies, our array-based solutions provide ideal tools to perform genome-wide association studies (GWAS) involving single-nucleotide polymorphism (SNP) genotyping and copy number variation (CNV) analyses, as well as gene expression profiling and other DNA, RNA, and protein studies. To further enhance our genetic analysis workflows, in January 2011 we acquired Epicentre Technologies Corporation, a leading provider of nucleic acid sample preparation reagents and specialty enzymes for sequencing and microarray applications. In 2010, through our acquisition of Helixis, Inc., we expanded our portfolio to include real-time polymerase chain reaction (PCR), one of the most widely used technologies in life sciences. Our new Eco Real-Time PCR System provides researchers with an affordable, full-featured system to perform targeted validation studies.

We are organized in two business segments, the Life Sciences Business Unit and the Diagnostics Business Unit. During 2010, our Diagnostics Business Unit had limited business activity and, accordingly, operating results are reported on an aggregate basis as one operating segment. At each reporting period end, we reassess our reportable operating segments, particularly as we continue to develop our molecular diagnostics business.

Our analysis presented below is organized to provide the information we believe will be useful for understanding the relevant trends going forward. However, this discussion should be read in conjunction with our consolidated financial statements and the notes thereto in Item 8 of this report.

Business Trends and Outlook

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, the other transactions, events, and trends discussed in Risk Factors in Item 1A of this report may also materially impact our business operations and financial results.

Next-Generation Sequencing

Growth in the sequencing market and enhancements in our product portfolio continue to drive both sequencing instrument and consumable sales. In Q1 2010, we began customer shipments of the HiSeq 2000, our newest high-throughput next-generation sequencing instrument. The HiSeq 2000 was developed over a three-year period and is designed to provide ultra-high sequencing throughput that will significantly lower the cost of sequencing. As a result of the launch, a substantial number of our customers who previously purchased the Genome Analyzer sequencing system ordered the HiSeq 2000 to replace their existing sequencer with this new system. As a result of strong demand, both from customers who desired to trade-in their existing Genome Analyzers and new customers who ordered the HiSeq 2000, our manufacturing capacity was constrained throughout all of 2010. During the year we significantly increased our manufacturing capacity for the HiSeq 2000 to meet growing demand. We now believe that we have increased our capacity to the point where we can begin reducing our backlog and fulfilling new orders in a more timely manner. Additionally, in the first half of 2011, we expect to further enhance the performance of the HiSeq 2000. We believe that these enhancements will enable customers to sequence whole human genomes for less than $5,000 in consumable costs. As we continue to make improvements that reduce the cost of sequencing we believe that more customers will use the HiSeq 2000, which generates more revenue per instrument time than the

Genome Analyzer. We believe that this will increase our consumable pull-through, which is a measure of the annual consumable revenue generated from each instrument in the installed base.

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In Q4 2011, we expect to begin volume customer shipments of our recently announced MiSeq, a low-cost personal sequencing system that we believe will provide individual researchers a platform with rapid turnaround time, high accuracy, and streamlined workflow. We believe the launch of the MiSeq will expand our presence in the lower throughput sequencing market.

Microarrays

As a complement to advances in sequencing technology, we believe microarrays offer a cheaper, faster, and more accurate technology for use when genetic content is known. The information content of microarrays is fixed and reproducible. As such, microarrays provide repeatable, standardized assays for certain subsets of nucleotide bases within the overall genome. During 2010, microarray product sales increased as compared to 2009, led by:

- the launch of the Omni 2.5, a four sample BeadChip enabling interrogation of approximately 2.5 million markers per sample;
- growth in sales of focused content arrays primarily from use for genetic screening in applied markets such as agriculture and fine mapping for follow up to GWAS projects; and
- the launch of the HiScanSQ, our instrument that integrates next-generation sequencing with genotyping and gene expression arrays.

As additional new rare variant content becomes available from the 1000 Genomes Project, an international research effort launched in 2008 to establish the most detailed catalog of human genetic variation, we plan to launch a microarray that will feature approximately five million markers per sample. We expect to begin customer shipments of this product in mid-2011. However, the launch of this product will depend on the timing of the release of new content from the 1000 Genomes Project. We believe new product introductions as new content becomes available will continue to drive growth in the sales of our microarray products.

American Recovery and Reinvestment Act of 2009 (the Recovery Act)

The Recovery Act was enacted in February 2009 to provide stimulus to the U.S. economy in the wake of the economic downturn. As part of the Recovery Act legislation, over $10.0 billion in funding was provided to the National Institutes of Health (NIH) to support the advancement of scientific research. While it is not possible to precisely quantify the net impact of orders resulting from the Recovery Act due to the uncertainty surrounding orders that would have been received in absence of stimulus, we believe approximately $70.4 million in orders during 2010 were directly related to Recovery Act grants. We believe Recovery Act funds will continue to be spent by our customers through 2012.

Gross Margin

Our gross profit as a percentage of revenue (gross margin) decreased during 2010 as compared to 2009 due to the effects of discounts provided to customers on the sales of HiSeq 2000s associated with promotional programs, including the Genome Analyzer trade-in program, and lower margins on our newer products, such as the HiSeq 2000. Over the course of 2011, we expect our gross margin to improve as the Genome Analyzer trade-in program is completed and sales of consumables, which generally carry a higher gross margin than instruments, increase as a percentage of total revenue. We also expect improved manufacturing efficiency for the HiSeq 2000 to improve gross margin in 2011.

Operating Expense

We expect to incur additional operating costs to support the expected growth in our business. We believe a substantial investment in research and development is essential to remain competitive and expand into additional markets. Accordingly, we expect our research and development expenses to increase in absolute dollars as we continue to expand our product base. Selling, general and administrative expenses are also

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expected to increase in absolute dollars as we invest in staff and infrastructure to support top line growth and global expansion.

Income Taxes

The provision for income taxes is dependent on 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 and the possible loss of the tax deduction on our outstanding convertible notes in Item 1A of this Form 10-K. For 2011 and beyond, we anticipate increased earnings in higher tax jurisdictions, which may adversely impact the provision for income taxes.

Due to the expected utilization of the majority of our net operating loss carryforwards and U.S. federal research and development tax credit carryforwards, we anticipate significant income tax payments in 2011 and beyond.

Results of Operations

To enhance comparability, the following table sets forth audited consolidated statement of operations data for the years ended January 2, 2011, January 3, 2010 and December 28, 2008 stated as a percentage of total revenue.

	2010	2009	2008
Revenue:			
Product revenue	93%	94%	93%
Service and other revenue	7	6	7
Total revenue	100	100	100
Cost of revenue:			
Cost of product revenue	30	29	34
Cost of service and other revenue	2	2	2
Amortization of intangible assets	1	1	2
Impairment of manufacturing equipment			1
Total cost of revenue	33	32	39
Gross profit	67	68	61
Operating expense:			
Research and development	20	21	17
Selling, general and administrative	24	26	26
Acquisition related (gain) expense, net	(1)	2	4
Total operating expense	43	49	47
Income from operations	24	19	14
Other income (expense):			
Interest income	1	2	2
Interest expense	(3)	(4)	(4)

Other (expense) income, net	(1)		1
Total other expense, net	(3)	(2)	(1)
Income before income taxes	21	17	13
Provision for income taxes	7	6	6
Net income	14%	11%	7%

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Comparison of 2010 and 2009

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. The year ended January 2, 2011 was 52 weeks and the year ended January 3, 2010 was 53 weeks.

Revenue

	2010	2009	Change	% Change
	(In thousands)			
Product revenue	$ 842,510	$ 627,240	$ 215,270	34%
Service and other revenue	60,231	39,084	21,147	54
Total revenue	$ 902,741	$ 666,324	$ 236,417	35%
Total gross profit	$ 601,540	$ 453,875	$ 147,665	33%
Total gross margin	66.6%	68.1%		

Revenue

Product revenue consists primarily of revenue from the sale of consumables and instruments.

Consumable revenue increased $113.7 million, or 29%, to $505.0 million for 2010 compared to $391.3 million for 2009. Microarray consumable revenue, which constituted more than half of our total consumable revenue, increased $28.3 million primarily attributable to growth in sales of our Infinium BeadChips, which constituted a majority of our microarray consumable sales. Sales volume of our Infinium BeadChip products increased on a per sample basis during 2010 compared to 2009. The average selling price per sample, however, declined due to a change in product mix primarily attributable to growth in sales of our focused content arrays and a number of large sample volume purchase orders that incurred higher discounts. Revenue from sequencing consumables increased $85.4 million due to growth in the installed base of our sequencing systems.

Revenue from the sale of instruments increased $98.9 million, or 44%, to $324.6 million for 2010 compared to $225.7 million for 2009. Sequencing instrument revenue increased $85.7 million. We experienced increases in both the number of units sold and average selling prices per unit for our sequencing systems during 2010 compared to 2009. Unit growth was due to increased demand for next-generation sequencing systems. The increase in average selling prices was primarily attributable to the launch of the HiSeq 2000 in Q1 2010. Microarray instrument revenue increased $13.2 million primarily attributable to strong demand for our HiScanSQ instrument launched in 2010. The launch of this system resulted in increases in both the number of units sold and average selling prices per unit for our microarray instruments during 2010 compared to 2009.

The increase in service and other revenue, which includes extended warranty contracts and genotyping and sequencing services, was primarily attributable to an increase in extended warranty contracts for our growing installed base of sequencing systems.

Gross Margin

The decrease in gross margin was primarily attributable to the effect of discounts provided to customers on the sales of HiSeq 2000 associated with promotional programs, including the Genome Analyzer trade-in program, and lower margins on our newer products, such as the HiSeq 2000. See Revenue Recognition in note 1. Organization and Summary of Significant Accounting Policies in Part II, Item 8, of this Form 10-K for additional information on the Genome Analyzer trade-in program. The impact of the promotional programs was partially offset by improved margins on sequencing consumables primarily attributable to improved overhead absorption from increased volumes and the benefit of decreased costs associated with chemistry improvements.

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Operating Expense

	2010	2009	Change	% Change
	(In thousands)			
Research and development	$ 177,947	$ 140,616	$ 37,331	27%
Selling, general and administrative	220,990	176,337	44,653	25
Acquisition related (gain) expense, net	(9,051)	11,325	(20,376)	(180)
Total operating expense	$ 389,886	$ 328,278	$ 61,608	19%

The increase in research and development expenses was primarily attributable to a $25.9 million increase in personnel expenses, including salaries, non-cash share-based compensation, and benefits, and an increase in other non-personnel expenses of $13.3 million comprised mostly of lab and production supplies expenses. These increases were primarily attributable to investments in new product development and commercialization along with projects to sustain and optimize our existing product portfolio.

The increase in selling, general and administrative expenses was primarily attributable to a $31.8 million increase in personnel expenses, including salaries, non-cash share-based compensation, and benefits, associated with the growth of our business, and an increase in outside service expenses of $9.7 million comprised mostly of legal and marketing expenses.

During 2010, acquisition related (gain) expense, net, includes a gain of $10.4 million from a change in the fair value of contingent consideration related to an acquisition, partially offset by an acquired in-process research and development charge of $1.3 million related to a milestone payment made to the former shareholders of a company we acquired in 2008. During 2009, acquisition related (gain) expense, net, included acquired in-process research and development charges of $11.3 million related to milestone payments made to the former shareholders of the company we acquired in 2008.

Other Expense, Net

	2010	2009	Change	% Change
	(In thousands)			
Interest income	$ 8,378	$ 11,029	$ (2,651)	(24)%
Interest expense	(24,598)	(23,718)	(880)	4
Other (expense) income, net	(10,055)	1,217	(11,272)	(926)
Total other expense, net	$ (26,275)	$ (11,472)	$ (14,803)	129%

Interest income decreased despite an increase in our average cash and investment balance due to an overall decline in interest rates during 2010 compared to 2009. The increase in interest expense was due to the amortization of the discount on our convertible senior notes. The change in other (expense) income, net, was primarily attributable to a

$13.2 million impairment charge recorded in Q4 2010 related to the impairment of a cost-method investment and a related note receivable (see note 5. Impairment in Part II, Item 8 of this Form 10-K for additional information on this impairment) partially offset by a $2.9 million gain recognized in Q2 2010 on the acquisition of Helixis, Inc., which represented the difference between the carrying value of our cost-method investment in Helixis, Inc. prior to acquisition and the fair value of that investment at the time of acquisition.

Provision for Income Taxes

	2010	2009	Change	% Change
	(In thousands)			
Income before income taxes	$ 185,379	$ 114,125	$ 71,254	62%
Provision for income taxes	$ 60,488	$ 41,844	$ 18,644	45%
Effective tax rate	32.6%	36.7%		

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The decrease in the effective tax rate was primarily attributable to the gain recorded on the change in the fair value of contingent consideration related to our acquisition of Helixis, Inc. that is excluded from taxable income and a decrease in nondeductible acquired IPR&D recognized for financial reporting purposes in 2010 as compared to 2009.

Comparison of 2009 and 2008

Our fiscal year is 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. The year ended January 3, 2010 was 53 weeks and the year ended December 28, 2008 was 52 weeks.

Revenue

	2009	2008	Change	% Change
	(In thousands)			
Product revenue	$ 627,240	$ 532,390	$ 94,850	18%
Service and other revenue	39,084	40,835	(1,751)	(4)
Total revenue	$ 666,324	$ 573,225	$ 93,099	16%
Total gross profit	$ 453,875	$ 353,094	$ 100,781	29%
Total gross margin	68.1%	61.6%		

Revenue

Product revenue consists primarily of revenue from the sale of consumables and instruments.

Consumable revenue increased $57.6 million, or 17%, to $391.3 million for 2009 compared to $333.7 million for 2008. Microarray consumable revenue, which constituted more than half of our consumable revenue, declined $11.4 million primarily attributable to lower sales of whole-genome genotyping arrays partially offset by growth in focused content arrays. The decline was driven by customers delaying the start of new GWAS in anticipation of new and rare variant content from the 1000 Genome Project, order delays directly related to stimulus funding under the Recovery Act, and the impact of reduced foundation funding at a few key customers. Sales volume for our Infinium BeadChip product lines, which constituted a majority of our microarray consumable sales, was relatively flat on a sample basis during 2009 compared to 2008. The average selling price per sample, however, declined due to a change in product mix attributable to growth in the sales of our focused content arrays coupled with lower sales of whole-genome genotyping arrays.

Revenue from sequencing consumables increased $68.9 million driven by growth in the installed base of our Genome Analyzer systems and the progression of customer labs ramping to production scale. The increase was partially offset by a loss of sales related to a quality issue affecting our paired-end cluster kits that arose in September 2009 when some of our larger sequencing customers began experiencing higher than average error rates on the second read of their paired-end analysis. During the fourth quarter, we began shipping reformulated paired-end cluster kits at full capacity and cleared the related shipping backlog.

Revenue from the sale of instruments increased $40.0 million, or 22%, to $225.7 million for 2009 compared to $185.7 million for 2008 primarily due to a $56.4 million increase in sales of our sequencing systems. During 2009 as

compared to 2008 units sold and average selling prices increased for our Genome Analyzer systems, which constituted a majority of sequencing instrument revenue. The increase in units sold was driven by increased demand for next-generation sequencing systems. The increase in average selling prices was attributable to the product transition from the Genome Analyzer I to the Genome Analyzer II in the second quarter of 2008 and technological improvements leading to the launch of the Genome Analyzer IIx in the second quarter of 2009. The increase in sequencing instrument revenue was partially offset by a $16.4 million decrease in the sales of our microarray systems, which declined primarily due to customers delaying the start of new GWAS in anticipation of new and rare variant content from the 1000 Genomes Project, order delays directly related to stimulus funding under the Recovery Act, and the impact of reduced foundation funding at a few key customers.

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Gross Margin

The increase in gross margin was primarily attributable to lower costs for our sequencing consumables and instrumentation, a $4.1 million impairment charge recorded in 2008 for which there was no similar charge recognized in 2009, and a $3.8 million decrease in amortization expense. The gross margin on sequencing consumables increased primarily due to improved overhead absorption from increased volumes of sequencing consumables and the benefit of decreased costs associated with the reformulation of our sequencing kits launched at the end of the third quarter of 2008. The gross margin on sequencing instruments increased primarily due to production efficiencies and reduced material costs coupled with higher average selling prices.

Operating Expense

	2009	2008	Change	% Change
	(In thousands)			
Research and development	$ 140,616	$ 99,963	$ 40,653	41%
Selling, general and administrative	176,337	148,014	28,323	19
Acquisition related (gain) expense, net	11,325	24,660	(13,335)	(54)
Total operating expense	$ 328,278	$ 272,637	$ 55,641	20%

The increase in research and development was primarily attributable to a $22.9 million increase in personnel-related expenses, including salaries, non-cash share-based compensation and benefits, a $10.4 million increase to non-personnel related expenses, and an increase in outside services of $3.2 million attributable to consulting fees. These increases were primarily related to the growth in our efforts to optimize and commercialize our sequencing and BeadArray technologies.

The increase in selling, general and administrative expenses was primarily attributable to an increase of $26.6 million in personnel-related expenses associated with the growth of our business, including salaries, non-cash share-based compensation, and benefits.

During 2009 acquisition related (gain) expense, net, includes IPR&D charges of $11.3 million related to milestone payments made to the former shareholders of a company we acquired in 2008. During 2008 acquisition related (gain) expense, net, includes IPR&D charges of $24.7 million as a result of the same acquisition.

Other Expense, Net

	2009	2008	Change	% Change
	(In thousands)			
Interest income	$ 11,029	$ 12,519	$ (1,490)	(12)%
Interest expense	(23,718)	(22,210)	(1,508)	7
Other income (expense), net	1,217	1,921	(704)	(37)

Total other expense, net	$ (11,472)	$ (7,770)	$ (3,702)	48%

Interest income decreased despite an increase in our average cash and investment balance due to an overall decline in interest rates during 2009 compared to 2008. Interest expense increased due to the amortization of the discount on our convertible senior notes. Other income (expense), net, decreased due to a decrease of $1.5 million in gains on net foreign currency transactions, which was partially offset by a gain of $0.8 million on the conversion of a portion of our debt during the first quarter of 2009.

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Provision for Income Taxes

	2009	2008	Change	% Change
	(In thousands)			
Income before income taxes	$ 114,125	$ 72,687	$ 41,438	57%
Provision for income taxes	$ 41,844	$ 33,271	$ 8,573	26%
Effective tax rate	36.7%	45.8%		

The decrease in the effective tax rate was primarily attributable to a decrease in nondeductible acquired IPR&D recognized for financial reporting purposes in 2009 compared to 2008. Additionally, the percentage of consolidated income before income taxes earned in foreign jurisdictions, which primarily have lower statutory tax rates than the U.S. statutory tax rate, increased from 36% in 2008 to 43% in 2009.

Liquidity and Capital Resources

Cash flow summary

	2010	2009	2008
		(In thousands)	
Net cash provided by operating activities	$ 272,573	$ 172,191	$ 87,882
Net cash used in investing activities	(285,053)	(256,569)	(277,249)
Net cash provided by (used in) financing activities	116,474	(98,862)	337,672
Effect of exchange rate changes on cash and cash equivalents	320	849	3,778
Net increase (decrease) in cash and cash equivalents	$ 104,314	$ (182,391)	$ 152,083

Operating Activities

Cash provided by operating activities in 2010 consists of net income of $124.9 million plus net non-cash adjustments of $149.8 million and a $2.1 million decrease in net operating assets. The primary non-cash expenses added back to net income included share based compensation of $71.6 million, depreciation and amortization expenses related to property and equipment and intangible assets of $42.0 million, and the amortization of the debt discount on our convertible notes totaling $21.4 million. The main drivers in the change in net operating assets included increases in accounts receivable, inventory, accounts payable and accrued liabilities. These increases were primarily related to the growth of our business.

Cash provided by operating activities in 2009 consists of net income of $72.3 million plus net non-cash adjustments of $115.7 million and an $15.8 million increase in net operating assets. The primary non-cash expenses added back to net income included share based compensation of $60.8 million and depreciation and amortization expense related to property and equipment, intangibles and the debt discount on our convertible notes totaling $51.5 million.

Investing Activities

Cash used in investing activities totaled $285.0 million in 2010. During the year we:

purchased and sold available-for-sale securities totaling $846.2 million and $688.6 million, respectively;

paid net cash of $98.2 million for acquisitions;

sold trading securities totaling $54.9 million;

used $49.8 million for capital expenditures primarily associated with the purchase of manufacturing equipment and infrastructure for additional production capacity and rental and loaner instruments; and

made strategic investments totaling $27.7 million.

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Cash used in investing activities totaled $256.6 million in 2009. We purchased and sold available-for-sale securities totaling $694.5 million and $514.2 million, respectively. We incurred $52.7 million in capital expenditures primarily associated with the expansion of our facilities and infrastructure at our San Diego, Hayward and UK locations.

Financing Activities

Cash provided by financing activities totaled $116.5 million in 2010. We received $118.0 million in proceeds from the issuance of our common stock through the exercise of stock options and warrants and under our Employee Stock Purchase Plan. We also received $42.4 million in incremental tax benefit related to stock options exercised. These increases were partially offset by common stock repurchases of $44.0 million.

Cash used in financing activities totaled $98.9 million in 2009. During the year we repurchased approximately 6.1 million shares of our common stock for $175.1 million, which was partially offset by $39.4 million in proceeds received from issuance of common stock through the exercise of stock options and under our Employee Stock Purchase Plan. We also received $39.3 million in incremental tax benefit related to stock options exercised.

Liquidity

We manage our business to maximize operating cash flows as the primary source of our liquidity. 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 issued debt and equity securities to finance our requirements to the extent that cash provided by operating activities was not sufficient to fund our needs.

At January 2, 2011, we had approximately $894.3 million in cash and short-term investments. Our short-term investments include marketable securities consisting of debt securities in government sponsored entities, corporate debt securities, and U.S. treasury notes.

On February 16, 2007, we issued $400.0 million in principal of convertible senior notes that mature February 15, 2014. We pay 0.625% interest per annum on the principal amount of the notes, payable semi-annually in arrears in cash on February 15 and August 15 of each year. The notes are convertible into cash and, if applicable, shares of our common stock under certain circumstances as described in note 7. Convertible Senior Notes in Part II, Item 8 of this Form 10-K. As of January 2, 2011, the principal amount of the notes was $390.0 million due to the conversion of $10.0 million of the notes during the first quarter of 2009. During the period from January 3, 2011 to February 28, 2011, certain noteholders notified us of their election to convert an aggregate of $251.1 million principal amount of the notes. See note 15. Subsequent Events in Part II, Item 8, of this Form 10-K for additional information on these conversions.

Our primary short-term needs for capital, which are subject to change, include expenditures related to:

- potential strategic acquisitions and investments;
- support of our commercialization efforts related to our current and future products, including expansion of our direct sales force and field support resources both in the United States and abroad;
- the repurchase of our outstanding common stock;
- the continued advancement of research and development efforts;

the acquisition of equipment and other fixed assets for use in our current and future manufacturing and research and development facilities; and

the expansion needs of our facilities, including costs of leasing additional facilities.

We expect that our product 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.

We anticipate that our current cash and cash equivalents and income from operations will be sufficient to fund our operating needs for at least the next 12 months, barring unforeseen circumstances. Operating needs

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include the planned costs to operate our business, including amounts required to fund working capital and capital expenditures. At the present time, we have no material commitments for capital expenditures. 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.

Off-Balance Sheet Arrangements

We do not participate in any transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. During the fiscal year ended January 2, 2011, we were not involved in any off-balance sheet arrangements within the meaning of the rules of the SEC.

Contractual Obligations

Contractual obligations represent future cash commitments and liabilities under agreements with third parties, and exclude orders for goods and services entered into in the normal course of business that are not enforceable or legally binding. The following table represents our contractual obligations as of January 2, 2011, aggregated by type (amounts in thousands):

		Payments Due by Period(1)			
Contractual Obligation	**Total**	**Less Than 1 Year**	**1 3 Years**	**3 5 Years**	**More Than 5 Years**
Debt obligations(2)	$ 398,530	$ 2,437	$ 4,875	$ 391,218	$
Operating leases	499,261	13,965	37,737	40,985	406,574
Amounts due under executive deferred compensation plan	5,272	5,272			
Total	$ 903,063	$ 21,674	$ 42,612	$ 432,203	$ 406,574

(1) The table excludes $22.7 million of uncertain tax benefits. We have not included this amount in the table because we cannot make a reasonably reliable estimate regarding the timing of settlements with taxing authorities, if any. See note 11. Income Taxes in Part II, Item 8 of this Form 10-K for further discussion of our uncertain tax positions. The table also excludes $35.0 million in contingent consideration related to acquisitions. We have not included this amount in the table because we cannot make a reasonably reliable estimate regarding whether the milestones required for these payments will be achieved. See note 3. Acquisitions in Part II, Item 8 of this

Form 10-K for further discussion of our contingent consideration.

(2) Debt obligations include the principal amount of our convertible senior notes and interest payments totaling 0.625% per annum. Although these notes mature in 2014, we classify the principal amount of the notes as current in our consolidated balance sheet due to the convertibility feature. In addition, during the period from January 3, 2011 to February 28, 2011, certain noteholders notified us of their election to convert an aggregate of $251.1 million principal amount of the notes in exchange for the repayment of the principal amount and a certain number of shares of the Company s common stock. See note 7. Convertible Senior Notes and note 15 Subsequent Events in Part II, Item 8 of this Form 10-K for further discussion of the terms of the convertible senior notes and the conversion notices in the subsequent period.

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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. 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 Part II, Item 8 of this Form 10-K.

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 received for performing genotyping and sequencing services, extended warranty sales, and amounts earned under research agreements with government grants, which are recognized in the period during which the related costs are incurred. The timing of revenue recognition and the amount of revenue actually recognized in each case depends upon a variety of factors, including the specific terms of each arrangement and the nature of our deliverables and obligations. Determination of the appropriate amount of revenue recognized involves significant judgments and estimates and actual results may differ from our estimates.

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the seller s price to the buyer is fixed or determinable, and collectibility is reasonably assured. In instances where final acceptance of the product or system is required, revenue is deferred until all the acceptance criteria have been met. All revenue is recorded net of any discounts.

Revenue for product sales is recognized generally upon transfer of title to the customer, provided that no significant obligations remain and collection of the receivable is reasonably assured. Revenue for genotyping and sequencing services is recognized when earned, which is generally at the time the genotyping or sequencing analysis data is made available to the customer or agreed upon milestones are reached.

In order to assess whether the price is fixed or determinable, we evaluate whether refund rights exist. If there are refund rights or payment terms based on future performance, we defer revenue recognition until the price becomes fixed or determinable. We assess collectibility based on a number of factors, including past transaction history with the customer and the creditworthiness of the customer. If we determine that collection of a payment is not reasonably assured, revenue recognition is deferred until receipt of payment.

We regularly enter into contracts where revenue is derived from multiple deliverables including any mix of products or services. These products or services are generally delivered within a short time frame, approximately three to six

months, of the contract execution date. Revenue recognition for contracts with multiple deliverables is based on the individual units of accounting determined to exist in the contract. A delivered item is considered a separate unit of accounting when the delivered item has value to the customer on a stand-alone basis. Items are considered to have stand-alone value when they are sold separately by any vendor or when the customer could resell the item on a stand-alone basis.

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For transactions entered into in 2009 and 2010, consideration is allocated at the inception of the contract to all deliverables based on their relative selling price. The relative selling price for each deliverable is determined using vendor specific objective evidence (VSOE) of selling price or third-party evidence of selling price if VSOE does not exist. If neither VSOE nor third-party evidence exists, we use best estimate of the selling price for the deliverable.

For transactions entered into prior to 2009, consideration was generally allocated to each unit of accounting based upon its relative fair value when objective and reliable evidence of fair value existed for all units of accounting in an arrangement. The fair value of an item was generally the price charged for the product, if the item was regularly sold on a stand-alone basis. In those instances when objective and reliable evidence of fair value existed for the undelivered items but not for the delivered items, the residual method was used to allocate the arrangement consideration. Under the residual method, the amount of arrangement consideration allocated to the delivered items equaled the total arrangement consideration less the aggregate fair value of the undelivered items. When we were unable to establish stand-alone value for delivered items or when fair value of undelivered items had not been established, revenue was deferred until all elements were delivered and services had been performed, or until fair value could objectively be determined for any remaining undelivered elements.

In order to establish VSOE of selling price, we must regularly sell the product or service on a standalone basis with a substantial majority priced within a relatively narrow range. VSOE of selling price is usually the midpoint of that range. If there are not a sufficient number of standalone sales and VSOE of selling price cannot be determined, then we consider whether third party evidence can be used to establish selling price. Due to the lack of similar products and services sold by other companies within the industry, we have rarely established selling price using third-party evidence. If neither VSOE nor third party evidence of selling price exists, we determine our best estimate of 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 our pricing committee adjusted for applicable discounts. We recognize revenue for delivered elements only when we determine there are no uncertainties regarding customer acceptance.

In the first quarter of 2010, we offered an incentive with the launch of the HiSeq 2000 that enabled existing Genome Analyzer customers to trade in their Genome Analyzer and receive a discount on the purchase of a HiSeq 2000. The incentive was limited to customers who had purchased a Genome Analyzer as of the date of the announcement and was the first significant trade-in program we have offered. We will account for HiSeq 2000 discounts related to the Genome Analyzer trade-in program in the period in which the HiSeq 2000 revenue is recognized.

Investments

We determine the fair value of our assets and liabilities 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.

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In using this fair value hierarchy, management may be required to make assumptions of pricing by market participants and assumptions about risk, specifically when using unobservable inputs to determine fair value. These assumptions are judgmental in nature and may significantly affect our results of operations.

Allowance for Doubtful Accounts

We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. We evaluate the collectibility of our accounts receivable based on a combination of factors. We regularly analyze customer accounts, review the length of time receivables are outstanding, review historical loss rates and assess current economic trends that may impact the level of credit losses in the future. Our allowance for doubtful accounts has generally been adequate to cover our actual credit losses. However, since we cannot reliably predict future changes in the financial stability of our customers and we may need to increase our reserves if the financial conditions of our customers deteriorate.

Inventory Valuation

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

Contingencies

We are subject to legal proceedings primarily related to intellectual property matters. We routinely assess the likelihood of adverse judgments or outcomes to these matters, as well as ranges of probable losses, to the extent losses are reasonably estimable. If losses are probable and reasonably estimable, we will record a liability and an expense for the estimated loss. Disclosure for specific legal contingencies is provided if the likelihood of occurrence is probable and the exposure is considered material to the consolidated financial statements. In making determinations of likely outcomes of litigation matters, management considers many factors. These factors 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, which may result in the recording of an accrual or a change in a previously recorded accrual. Predicting the outcome of claims and litigation, and estimating related costs and exposure involves substantial uncertainties that could cause actual costs to vary materially from estimates and accruals.

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. We record the excess consideration over the aggregate fair value of tangible and intangible assets, net of liabilities assumed, as goodwill. These valuations require us to make significant estimates and assumptions, especially with respect to intangible assets.

In connection with certain of our acquisitions, additional contingent consideration is earned by the sellers upon completion of certain future performance milestones. Prior to fiscal year 2009, the Company recognized contingent consideration as an additional element of the cost of the acquisition, generally goodwill, when the contingency was

resolved beyond a reasonable doubt and the additional consideration was issued or became issuable. Due to changes in the accounting standards regarding business combinations, for all acquisitions consummated on or after December 29, 2008, a liability is recorded on the acquisition date for an estimate of the acquisition date fair value of the contingent consideration by applying the income approach utilizing

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variable factors such as anticipated future cash flows, risk-free adjusted discount rates and nonperformance risk. Any change in the fair value of the contingent consideration subsequent to the acquisition date is recognized in acquisition related (gain) expense, net, a component of operating expenses, in the consolidated statements of income. This method requires significant management judgment, including the probability of achieving certain future milestones and discount rates. Future changes in our estimates could result in expenses or gains.

Management uses a discounted cash flow method to value our acquired intangible assets. This method requires significant 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 expenses could be accelerated or slowed.

Intangible Assets and Other Long-Lived Assets Impairment Assessments

We estimate the fair value of intangible assets and other long-lived assets that have finite useful lives whenever an event or change in circumstances indicates that the carrying value of the asset may not be recovered through undiscounted future operating cash flows.

In order to estimate the fair value of purchased intangible assets and other long-lived assets that have finite useful lives, we estimate the present value of future cash flows from those assets. The key assumptions that we use in our discounted 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. Significant judgment is required to estimate the amount and timing of future cash flows and the relative risk of achieving those cash flows. We had a total of $129.9 million in net property and equipment and $70.0 million in net intangible assets on our balance sheet at January 2, 2011.

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 one or more of our reporting units, we may be required to record future impairment charges for purchased intangible assets. Impairment charges could materially decrease our future net income and result in lower asset values on our balance sheet.

Share-Based Compensation

We are required to measure and recognize compensation expense for all share-based payments made to employees and directors based on estimated fair value. We estimate the fair value of stock options granted and stock purchases under our employee stock purchase plan using the Black-Scholes-Merton (BSM) option-pricing model. The fair value of our restricted stock units is based on the market price of our common stock on the date of grant.

The determination of fair value of share-based awards using the BSM model requires the use of certain estimates and highly judgmental assumptions that affect the amount of share-based compensation expense recognized in our consolidated statements of income. These include estimates of the expected volatility of our stock price, expected life

of an award, expected dividends, and the risk-free interest rate. We determine the volatility of our stock price by equally weighing the historical and implied volatility of our common stock. The historical volatility of our common stock over the most recent period is generally commensurate with the estimated expected life of our stock awards, adjusted for the impact of unusual fluctuations not reasonably

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expected to recur, and other relevant factors. Implied volatility is calculated from the implied market volatility of exchange-traded call options on our common stock. The expected life of an award is based on historical forfeiture experience, exercise activity, and on the terms and conditions of the stock awards. We determined expected dividend yield to be 0% given we have never declared or paid any cash dividends on our common stock and we currently 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. We amortize the fair value of share-based compensation on a straight-line basis over the requisite service periods of the awards. If any of the assumptions used in the BSM model change significantly, share-based compensation expense may differ materially from what we have recorded in the current period.

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. Significant judgments and estimates based on interpretations of existing tax laws or regulations in the U.S. 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, statutory tax rates, and estimates of the company s 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 reliable forecasting, projections of pre-tax book income over the foreseeable future, and the impact of any feasible and prudent tax planning strategies. Based on the available evidence as of January 2, 2011, we were not able to conclude it is more likely than not certain U.S. and foreign deferred tax assets will be realized. Therefore, we recorded a valuation allowance of $1.9 million and $3.1 million against certain U.S. and foreign deferred tax assets, respectively.

We recognize the impact of a tax position in our 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 the company s 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.

Warranties

We generally provide a one-year warranty on instruments. Additionally, we provide a warranty on consumables through the expiry date, which generally ranges from six to twelve months after the manufacture date. We establish an accrual for estimated warranty expenses based on historical experience as well as anticipated product performance. We periodically review the adequacy of our warranty reserve, and adjust, if necessary, the warranty percentage and accrual based on actual experience and estimated costs to be incurred. If our estimates of warranty obligation change or if actual product performance is below our expectations we may incur additional warranty expense.

Item 7A. ***Quantitative and Qualitative Disclosures about Market Risk.***

Interest Rate Sensitivity

Our investment portfolio is exposed to market risk for changes in interest rates. The fair market value of fixed rate securities may be adversely impacted by fluctuations in interest rates while income earned on floating rate securities may decline as a result of decreases in interest rates. Under our current policies, we do

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not use interest rate derivative instruments to manage exposure to interest rate changes. We attempt to ensure the safety and preservation of our invested principal funds by limiting default risk, market risk, and reinvestment risk. We mitigate default risk by investing in investment grade securities. 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. In addition, if a 100 basis point change in overall interest rates were to occur in 2011, our interest income would change by approximately $8.9 million in relation to amounts we would expect to earn, based on our cash, cash equivalents, and short-term investments as of January 2, 2011.

Changes in interest rates may also impact gains or losses from the conversion of our outstanding convertible senior notes. As of January 2, 2011, we had $390.0 million aggregate principal amount of convertible notes outstanding. The notes are convertible into cash, and if applicable, shares of our common stock under certain circumstances, including trading price conditions related to our common stock. If the trading price of our common stock remains significantly above the conversion price of $21.83 per share, we expect that noteholders will elect to convert the notes. Upon conversion, we are required to record a gain or loss for the difference between the fair value of the debt to be extinguished and its corresponding net carrying value. The fair value of the debt to be extinguished depends on our current incremental borrowing rate. The net carrying value of the notes has an implicit interest rate of 8.27%. If our incremental borrowing rate at the time of conversion is higher or lower than the implied interest rate of the notes, we will record a gain or loss in our consolidated statement of income during the period in which the notes are converted. An incremental borrowing rate that is a hypothetical 100 basis points lower than the implicit interest rate upon conversion of $100 million aggregate principal amount of the notes would result in a loss of approximately $3.5 million.

Market Price Sensitive Instruments

In order to reduce potential equity dilution, in connection with the issuance (and potential conversion) of our convertible notes, we entered into convertible note hedge transactions, entitling us to purchase up to 18,322,320 shares of our common stock at a strike price of $21.83 per share, subject to adjustment. In addition, we sold to the hedge transaction counterparties warrants exercisable on a net-share basis, for up to 18,322,320 shares of our common stock at a strike price of $31.435 per share, subject to adjustment. The anti-dilutive effect of the note hedge transactions, if any, could be partially or fully offset to the extent the trading price of our common stock exceeds the strike price of the warrants on the exercise dates of the warrants, which occur during 2014, assuming the warrants are exercised.

Foreign Currency Exchange Risk

We conduct a portion of our business in currencies other than the entity s U.S. dollar functional currency. These transactions give rise to monetary assets and liabilities that are denominated in currencies other than the entity s functional currency. The value of these monetary assets and liabilities are subject to changes in currency exchange rates from the time the transactions are originated until settlement in cash. Our foreign currency exposures are primarily concentrated in the Euro, Yen, British pound sterling, Australian dollar, and Singapore dollar. Both realized and unrealized gains or losses on the value of these monetary assets and liabilities are included in the determination of net income. We recorded a net currency exchange gain on business transactions, net of hedging transactions, of $1.0 million for each of the years ended January 2, 2011 and January 3, 2010, which are included in other (expense) income, net, in the consolidated statements of income.

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We use forward exchange contracts to manage a portion of the foreign currency exposure risk for foreign subsidiaries with monetary assets and liabilities denominated in currencies other than the entity s functional currency. 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. We primarily use forward exchange contracts to hedge foreign currency exposures, and they generally have terms of one month or less. Realized and unrealized gains or losses on the value of financial contracts entered into to hedge the exchange rate exposure of these monetary assets and liabilities are also included in the determination of net income, 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 losses or gains from changes in the value of the underlying monetary assets and liabilities. At January 2, 2011, we had $20.0 million of foreign currency forward contracts outstanding to hedge foreign currency risk.

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Item 8. ***Financial Statements and Supplementary Data.***

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of
Illumina, Inc.

We have audited the accompanying consolidated balance sheets of Illumina, Inc. as of January 2, 2011 and January 3, 2010, and the related consolidated statements of income, stockholders equity, and cash flows for each of the three years in the period ended January 2, 2011. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and schedule are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Illumina, Inc. at January 2, 2011 and January 3, 2010, and the consolidated results of its operations and its cash flows for each of the three years in the period ended January 2, 2011, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed in Note 1 to the consolidated financial statements, Illumina, Inc. changed its method of accounting for business combinations effective December 29, 2008.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Illumina, Inc. s internal control over financial reporting as of January 2, 2011, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 28, 2011 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
February 28, 2011

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ILLUMINA, INC.

CONSOLIDATED BALANCE SHEETS

	January 2, 2011	January 3, 2010
	(In thousands)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 248,947	$ 144,633
Short-term investments	645,342	548,894
Accounts receivable, net	165,598	157,751
Inventory, net	142,211	92,776
Deferred tax assets, current portion	19,378	20,021
Prepaid expenses and other current assets	36,922	17,515
Total current assets	1,258,398	981,590
Property and equipment, net	129,874	117,188
Goodwill	278,206	213,452
Intangible assets, net	70,024	43,788
Deferred tax assets, long-term portion	39,497	47,371
Other assets	63,114	26,548
Total assets	$ 1,839,113	$ 1,429,937
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities:		
Accounts payable	$ 66,744	$ 52,781
Accrued liabilities	156,164	98,253
Long-term debt, current portion	311,609	290,202
Total current liabilities	534,517	441,236
Other long-term liabilities	28,531	24,656
Commitments and contingencies		
Conversion option subject to cash settlement	78,390	99,797
Stockholders equity:		
Preferred stock, $0.01 par value, 10,000,000 shares authorized, no shares issued at January 2, 2011 and January 3, 2010		
Common stock, $0.01 par value, 320,000,000 shares authorized, 151,512,837 shares issued at January 2, 2011, 143,544,265 shares issued at January 3, 2010	1,516	1,436
Additional paid-in capital	1,891,288	1,637,751
Accumulated other comprehensive income	1,765	2,830
Accumulated deficit	(155,335)	(280,226)
	(541,559)	(497,543)

Treasury stock, at cost (24,904,564 shares at January 2, 2011 and 24,068,450 shares at January 3, 2010)		
Total stockholders equity	1,197,675	864,248
Total liabilities and stockholders equity	$ 1,839,113	$ 1,429,937

See accompanying notes to consolidated financial statements

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ILLUMINA, INC.

CONSOLIDATED STATEMENTS OF INCOME

	Years Ended_		
	January 2, 2011	January 3, 2010	December 28, 2008
	(In thousands, except per share amounts)		
Revenue:			
Product revenue	$ 842,510	$ 627,240	$ 532,390
Service and other revenue	60,231	39,084	40,835
Total revenue	902,741	666,324	573,225
Cost of revenue:			
Cost of product revenue	271,997	190,714	192,868
Cost of service and other revenue	21,399	15,055	12,756
Amortization of intangible assets	7,805	6,680	10,438
Impairment of manufacturing equipment			4,069
Total cost of revenue	301,201	212,449	220,131
Gross profit	601,540	453,875	353,094
Operating expense:			
Research and development	177,947	140,616	99,963
Selling, general and administrative	220,990	176,337	148,014
Acquisition related (gain) expense, net	(9,051)	11,325	24,660
Total operating expense	389,886	328,278	272,637
Income from operations	211,654	125,597	80,457
Other income (expense):			
Interest income	8,378	11,029	12,519
Interest expense	(24,598)	(23,718)	(22,210)
Other (expense) income, net	(10,055)	1,217	1,921
Total other expense, net	(26,275)	(11,472)	(7,770)
Income before income taxes	185,379	114,125	72,687
Provision for income taxes	60,488	41,844	33,271
Net income	$ 124,891	$ 72,281	$ 39,416
Net income per basic share	$ 1.01	$ 0.59	$ 0.34
Net income per diluted share	$ 0.87	$ 0.53	$ 0.30

Shares used in calculating basic net income per share	123,581	123,154	116,855
Shares used in calculating diluted net income per share	143,433	137,096	133,607

See accompanying notes to consolidated financial statements

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ILLUMINA, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Treasury Stock Shares	Treasury Stock Amount	Total Stockholder Equity
				(In thousands)				
lance as of cember 30, 2007	125,608	$ 1,256	$ 994,869	$ 1,347	$ (391,923)	(14,819)	$ (251,622)	$ 353,92
mponents of mprehensive income: t income					39,416			39,41
realized gain on ailable-for-sale curities, net of deferred				920				92
reign currency nslation adjustment			(16)	155				13
mprehensive income								40,47
uance of common stock conjunction with condary offering, net of uance costs	8,050	80	342,570					342,65
uance of common stock der employee stock ns	4,923	49	44,281					44,33
arrants exercised	356	4	2,987					2,99
are-based compensation			47,695					47,69
cremental tax benefit ated to stock options ercised			18,501					18,50
purchases of common ck						(3,109)	(70,785)	(70,78
measurement of nvertible debt			18,883					18,88
lance as of cember 28, 2008	138,937	1,389	1,469,770	2,422	(352,507)	(17,928)	(322,407)	798,66
mponents of mprehensive income: t income					72,281			72,28
realized gain on ailable-for-sale				408				40

curities, net of deferred								
mprehensive income								72,68
uance of common stock	3,569	36	39,343					39,37
arrants exercised	954	10	7,566					7,57
are-based compensation			60,813					60,81
cremental tax benefit ated to stock options ercised			39,319					39,31
purchases of common ck						(6,140)	(175,136)	(175,13
measurement of nvertible debt	84	1	20,940					20,94
lance as of January 3, 10	143,544	1,436	1,637,751	2,830	(280,226)	(24,068)	(497,543)	864,24
mponents of mprehensive income: t income					124,891			124,89
realized loss on ailable-for-sale curities, net of deferred				(1,065)				(1,06
mprehensive income								123,82
uance of common stock	6,391	64	101,952					102,01
arrants exercised	1,578	16	16,013					16,02
are-based compensation			71,725					71,72
cremental tax benefit ated to stock options ercised			42,445					42,44
purchases of common ck						(836)	(44,016)	(44,01
measurement of nvertible debt			21,402					21,40
lance as of January 2, 11	151,513	$ 1,516	$ 1,891,288	$ 1,765	$ (155,335)	(24,904)	$ (541,559)	$ 1,197,67

See accompanying notes to consolidated financial statements

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ILLUMINA, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended		
	January 2, 2011	January 3, 2010	December 28, 2008
		(In thousands)	
Cash flows from operating activities:			
Net income	$ 124,891	$ 72,281	$ 39,416
Adjustments to reconcile net income to net cash provided by operating activities:			
Acquired in-process research and development	1,325	11,325	24,660
Amortization of intangible assets	7,805	6,680	10,438
Amortization of debt discount	21,407	20,286	18,883
Change in fair value of contingent consideration	(10,376)		
Impairment of cost-method investment	13,223		
Gain on acquisition	(2,914)		
Depreciation expense	34,204	24,504	17,285
Share-based compensation expense	71,645	60,811	47,688
Incremental tax benefit related to stock options exercised	(42,445)	(39,319)	(18,501)
Deferred income taxes	48,696	29,704	31,533
Impairment of manufacturing equipment			4,069
Other non-cash adjustments	7,239	1,721	803
Changes in operating assets and liabilities:			
Accounts receivable	(7,844)	(18,578)	(57,672)
Inventory	(48,583)	(20,557)	(19,560)
Prepaid expenses and other current assets	2,554	(3,429)	2,322
Other assets	(3,566)	(2,670)	(1,815)
Accounts payable	23,150	11,778	4,840
Accrued liabilities	32,028	19,997	31,716
Other long-term liabilities	(113)	814	6,313
Litigation settlements payable			(54,536)
Unrealized gain (loss) on foreign exchange	247	(3,157)	
Net cash provided by operating activities	272,573	172,191	87,882
Cash flows from investing activities:			
Purchases of available-for-sale securities	(846,208)	(694,487)	(568,707)
Sales and maturities of available-for-sale securities	688,611	514,216	411,817
Sales and maturities of trading securities	54,900	1,000	
Net cash paid for acquisitions	(98,211)	(1,325)	(24,666)
Purchases of investments	(27,677)	(19,900)	
Purchases of property and equipment	(49,818)	(52,673)	(59,693)
Cash paid for intangible assets	(6,650)	(3,400)	(36,000)

Net cash used in investing activities	(285,053)	(256,569)	(277,249)
Cash flows from financing activities:			
Payments on current portion of long-term debt		(10,000)	(15)
Incremental tax benefit related to stock options exercised	42,445	39,319	18,501
Common stock repurchases	(44,016)	(175,136)	(70,785)
Proceeds from secondary offering, net of issuance cost			342,650
Proceeds from the exercise of warrants	16,029	7,576	2,991
Proceeds from issuance of common stock	102,016	39,379	44,330
Net cash provided by (used in) financing activities	116,474	(98,862)	337,672
Effect of exchange rate changes on cash and cash equivalents	320	849	3,778
Net increase (decrease) in cash and cash equivalents	104,314	(182,391)	152,083
Cash and cash equivalents at beginning of period	144,633	327,024	174,941
Cash and cash equivalents at end of period	$ 248,947	$ 144,633	$ 327,024
Supplemental disclosures of cash flow information:			
Cash paid for interest	$ 2,437	$ 2,437	$ 2,553
Cash paid (refunded) for income taxes	$ 31,566	$ 10,361	$ (1,653)

See accompanying notes to consolidated financial statements

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ILLUMINA, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

1. Organization and Summary of Significant Accounting Policies

Organization and Business

Illumina, Inc. (the Company) is a leading developer, manufacturer, and marketer of life science tools and integrated systems for the analysis of genetic variation and biological function. Using the Company s proprietary technologies, Illumina provides a comprehensive line of genetic analysis solutions, with products and services that serve a broad range of highly interconnected markets, including sequencing, genotyping, gene expression, and molecular diagnostics. The Company s customers include leading genomic research centers, academic institutions, government laboratories, and clinical research organizations, as well as pharmaceutical, biotechnology, agrigenomics, and consumer genomics companies.

Basis of Presentation

The consolidated financial statements of the Company have been prepared in conformity with U.S. generally accepted accounting principles (GAAP) and include the accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Fiscal Year

The Company s fiscal year is 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. The year ended January 2, 2011 was 52 weeks; the year ended January 3, 2010 was 53 weeks; the year ended December 28, 2008 was 52 weeks.

Use of Estimates

The preparation of financial statements requires that management make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Segment Information

The Company is organized in two business segments, the Life Sciences Business Unit and Diagnostics Business Unit. The Life Sciences Business Unit includes all products and services that are primarily related to the research market, namely the product lines based on the Company s sequencing, BeadArray, VeraCode, and real-time polymerase chain reaction (PCR) technologies, and the Diagnostics Business Unit focuses on the emerging opportunity in molecular diagnostics. During all periods presented, the Company had limited activity related to the Diagnostics Business Unit. Accordingly, the Company s operating results for both units are reported on an aggregate basis as one reportable segment during these periods. The Company will begin reporting in two segments once revenues, operating profit or loss, or assets of the Diagnostics Business Unit exceed 10% of the consolidated amounts.

Acquisitions

Effective December 29, 2008, the Company adopted the FASB s revised authoritative guidance for business combinations. This revised guidance requires an acquiring company to measure all assets acquired and liabilities assumed, including contingent considerations and all contractual contingencies, at fair value as of the acquisition date. In addition, an acquiring company is required to capitalize in-process research and development (IPR&D) and either amortize it over the life of the product upon commercialization, or write it

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ILLUMINA, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

off if the project is abandoned or impaired. Previously, post-acquisition adjustments related to business combination deferred tax asset valuation allowances and liabilities for uncertain tax positions were generally required to be recorded as an increase or decrease to Goodwill. The revised guidance does not permit this accounting and, generally, requires any such changes to be recorded in current period income tax expense. Thus, all changes to valuation allowances and liabilities for uncertain tax positions established in acquisition accounting, regardless of the guidance used to initially account for the business combination, will be recognized in current period income tax expense. Additionally, this guidance requires that contingent purchase consideration be remeasured to estimated fair value at each reporting period with the change in fair value recorded in the results of operations. The impact of the adoption of this guidance did not have an impact on the consolidated financial statements for the year ended January 3, 2010. As a result of acquisitions completed in the year ended January 2, 2011, the Company capitalized $21.4 million of IPR&D that would have been expensed under the previous guidance. In addition the Company recorded $14.1 million of contingent consideration liability at fair value at the acquisition date which was remeasured with a net consolidated statement of income impact of $10.4 million recorded in acquisition related (gain) expense, net, a component of operating expenses.

For an acquisition consummated prior to December 29, 2008, the Company recognizes additional contingent consideration as an additional element of the cost of the acquisition when the contingency is resolved beyond a reasonable doubt and the additional consideration is issued or becomes issuable, in accordance with the accounting guidance effective at the acquisition date. This results in additional IPR&D charges in periods subsequent to the acquisition recorded in acquisition related (gain) expense, net.

Cash Equivalents and Short-Term Investments

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

Short-term investments consist of U.S. Treasury and U.S. government agency securities, corporate notes and bonds, and commercial paper. Management classifies short-term investments as available-for-sale at the time of purchase and reevaluates such classification as of each balance sheet date. All short-term investments are recorded at estimated fair value. Unrealized gains and losses for available-for-sale securities are included in accumulated other comprehensive income, a component of stockholders equity. The Company evaluates its investments to assess whether those with unrealized loss positions are other than temporarily impaired. Impairments are considered to be other than temporary if they are related to deterioration in credit risk or if it is likely that the Company will sell the securities before the recovery of their cost basis. Realized gains and losses and declines in value judged to be other than temporary are determined based on the specific identification method and are reported in other (expense) income, net in the consolidated statements of income.

Fair Value Measurements

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, excluding acquisition related contingent consideration liability noted below, approximate the related fair values due to the short-term maturities of these instruments. The estimated fair value of the convertible senior notes is determined by using available market information as of the latest trading date prior to the Company s fiscal year-end provided by a third party financial institution. The par value and approximate fair value of the Company s convertible notes was $390.0 million and

$1,142.5 million, respectively, at January 2, 2011, and $390.0 million and $553.2 million, respectively, at January 3, 2010.

The Company determines the fair value of its assets and liabilities 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

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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. The Company uses 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 following table presents the Company s fair value hierarchy for assets and liability measured at fair value on a recurring basis as of January 2, 2011 and January 3, 2010, respectively (in thousands):

	January 2, 2011			
	Level 1	**Level 2**	**Level 3**	**Total**
Assets:				
Money market funds (cash equivalent)	$ 148,822	$	$	$ 148,822
Debt securities in government sponsored entities		261,697		261,697
Corporate debt securities		330,758		330,758
U.S. Treasury securities	52,887			52,887
Total assets measured at fair value	$ 201,709	$ 592,455	$	$ 794,164
Liability:				
Acquisition related contingent consideration liability	$	$	$ 3,738	$ 3,738

	January 3, 2010			
	Level 1	**Level 2 _**	**Level 3**	**Total**
Assets:				
Money market funds (cash equivalent)	$ 81,153	$	$	$ 81,153
Debt securities in government sponsored entities		289,701		289,701
Corporate debt securities		192,821		192,821
Auction rate securities			54,900	54,900
U.S. Treasury securities	11,472			11,472
Total assets measured at fair value	$ 92,625	$ 482,522	$ 54,900	$ 630,047

The Company measures the fair value of debt securities in government sponsored entities and corporate debt securities on a recurring basis primarily using quoted prices for similar assets in active markets.

Included in the total consideration transferred for the Company s acquisition of Helixis, Inc. (Helixis), was contingent consideration payments that could range from $0 to $35 million based on the achievement of certain revenue-based milestones by December 31, 2010 and by December 31, 2011. On the acquisition date, a liability of $14.1 million was recorded at the estimated fair value of the contingent consideration. The December 31, 2010 milestone was not achieved and the likelihood of paying the remaining contingent consideration of up to $30 million declined. Accordingly, the Company reassessed the fair value of the

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contingent consideration at $3.7 million and recorded the change in fair value of $10.4 million in acquisition related (gain) expense, net, in the consolidated statements of income in the fourth quarter of 2010.

This fair value measurement is a Level 3 measurement as it is based on unobservable inputs that are supported by little or no market activity. Significant assumptions used in the measurement include probabilities of achieving the remaining milestone and the discount rates used in the income approach of valuation, which ranged from 27% to 52% depending on the likelihood assessed. Future changes in the fair value of the contingent consideration as a result of changes in these significant inputs could have a significant effect on the consolidated statements of income and the financial position in the period of the change.

The following table includes a summary of the changes in estimated fair value of the contingent consideration liability (in thousands) during the year ended January 2, 2011:

	Contingent Consideration Liability (Level 3 Measurement)
Balance at January 3, 2010	$
Acquisition of Helixis	14,114
Gain recorded in acquisition related (gain) expense, net	(10,376)
Balance at January 2, 2011	$ 3,738

Accounts Receivable

Trade accounts receivable are recorded at the net invoice value and are not interest bearing. The Company considers receivables past due based on the contractual payment terms. The Company reviews its exposure to amounts receivable and reserves specific amounts if collectibility is no longer reasonably assured. The Company also reserves a percentage of its trade receivable balance based on collection history and current economic trends that might impact the level of future credit losses. The Company re-evaluates such reserves on a regular basis and adjusts its reserves as needed.

Concentrations of Risk

The Company operates 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 the Company s operating results.

The Company is also subject to risks related to its financial instruments including its cash and cash equivalents, investments, and accounts receivable. Most of the Company s cash and cash equivalents as of January 2, 2011 were deposited with financial institutions in the United States. The Company s investment policy restricts the amount of credit exposure to any one issuer to 5% of the portfolio at the time of purchase and to any one industry sector, as

defined by Bloomberg classifications, to 25% of the portfolio at the time of purchase. There is no limit to the percentage of the portfolio that may be maintained in U.S. treasury obligations, U.S. government agencies, and money market funds. The Company performs a regular review of customer activity and associated credit risks and do not require collateral or enter into netting arrangements. The Company has historically not experienced significant credit losses from investments and accounts receivable.

The Company s products require customized components that currently are available from a limited number of sources. The Company obtains certain key components included in its products from single vendors.

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Shipments to customers outside the United States comprised 45%, 48%, and 51% of the Company s revenue for the years ended January 2, 2011, January 3, 2010, and December 28, 2008, respectively. Customers outside the United States represented 59% and 46% of the Company s gross trade accounts receivable balance as of January 2, 2011 and January 3, 2010, respectively. Sales to territories outside of the United States are generally denominated in U.S. dollars. International sales entail a variety of risks, including currency exchange fluctuations, longer payment cycles, and greater difficulty in accounts receivable collection. The Company is 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.

Inventory

Inventory is stated at the lower of cost (on a first in, first out basis) or market. 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 expired. Provisions for slow moving, excess, and obsolete inventories are estimated based on product life cycles, quality issues, historical experience, and usage forecasts.

Property and Equipment

Property and equipment are stated at cost, subject to review of impairment, and depreciated over the estimated useful lives of the assets (generally three to seven years) using the straight-line method. Amortization of leasehold improvements is computed over the shorter of the lease term or the estimated useful life of the related assets. Maintenance and repairs are charged to operations 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.

Goodwill, Intangible Assets and Other Long-Lived Assets

Goodwill represents the excess of cost over fair value of net assets acquired. The change in the carrying value of goodwill during the year ended January 2, 2011 was due to goodwill recorded in connection with acquisitions consummated in the year. Intangible assets include acquired technology, customer relationships, other license agreements, and licensed technology (capitalized as part of the Affymetrix litigation). The cost of identified intangible assets is amortized on a straight-line basis over periods ranging from three to ten years.

The Company regularly performs reviews to determine if the carrying values of the long-lived assets are impaired. Goodwill and other intangible assets that have indefinite useful lives, such as IPR&D, are reviewed for impairment at least annually during the second fiscal quarter, or more frequently if an event occurs indicating the potential for impairment. The performance of the goodwill impairment test is a two-step process. The first step of the impairment test involves comparing the estimated fair value of the reporting unit with its carrying value, including goodwill. If the carrying amount of the reporting unit exceeds its fair value, the Company performs the second step of the goodwill impairment test to determine the amount of loss, which involves comparing the implied fair value of the goodwill with the carrying value of the goodwill. The Company performed its annual impairment test of goodwill in May of 2010, noting no impairment and has determined there have been no impairment indicators for goodwill through January 2, 2011. A review of intangible assets that have finite useful lives and other long-lived assets is performed when an event occurs indicating the potential for impairment. If indicators of impairment exist, the Company assesses the recoverability of the affected long-lived assets by determining whether the carrying amount of such assets exceeds the

undiscounted expected future cash flows. If impairment is indicated, the Company compares the carrying amount to the estimated fair value of the asset and adjusts the value of the asset accordingly. Factors that would necessitate an impairment assessment include a significant decline in the Company s stock price

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and market capitalization compared to its net book value, significant changes in the ability of a particular asset to generate positive cash flows, and significant changes in the Company s strategic business objectives and utilization of the asset.

Reserve for Product Warranties

The Company generally provides a one-year warranty on instruments. Additionally, the Company provides a warranty on its consumables through the expiry date, which generally ranges from six to twelve months after the manufacture date. The Company establishes an accrual for estimated warranty expenses based on historical experience as well as anticipated product performance. The Company periodically reviews the adequacy of its warranty reserve, and adjusts, if necessary, the warranty percentage and accrual based on actual experience and estimated costs to be incurred. Warranty expense is recorded as a component of cost of product revenue. Warranty expenses associated with extended maintenance contracts for systems are recorded as cost of service and other revenue as incurred. See note 6. Warranties for further detailed discussion.

Revenue Recognition

The Company s revenue is generated primarily from the sale of products and services. Product revenue primarily consists of sales of instrumentation and consumables used in genetic analysis. Service and other revenue primarily consists of revenue received for performing genotyping and sequencing services, extended warranty sales, and amounts earned under research agreements with government grants, which are recognized in the period during which the related costs are incurred.

The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the seller s price to the buyer is fixed or determinable, and collectibility is reasonably assured. In instances where final acceptance of the product or system is required, revenue is deferred until all the acceptance criteria have been met. All revenue is recorded net of any discounts.

Revenue for product sales is recognized generally upon transfer of title to the customer, provided that no significant obligations remain and collection of the receivable is reasonably assured. Revenue for genotyping and sequencing services is recognized when earned, which is generally at the time the genotyping or sequencing analysis data is made available to the customer or agreed upon milestones are reached.

In order to assess whether the price is fixed or determinable, the Company evaluates whether refund rights exist. If there are refund rights or payment terms based on future performance, the Company defers revenue recognition until the price becomes fixed or determinable. The Company assesses collectibility based on a number of factors, including past transaction history with the customer and the creditworthiness of the customer. If the Company determines that collection of a payment is not reasonably assured, revenue recognition is deferred until receipt of payment.

The Company regularly enters into contracts where revenue is derived from multiple deliverables including any mix of products or services. These products or services are generally delivered within a short time frame, approximately three to six months, of the contract execution date. Revenue recognition for contracts with multiple deliverables is based on the individual units of accounting determined to exist in the contract. A delivered item is considered a separate unit of accounting when the delivered item has value to the customer on a stand-alone basis. Items are considered to have stand-alone value when they are sold separately by any vendor or when the customer could resell

the item on a stand-alone basis.

For transactions entered into in 2009 and 2010, consideration is allocated at the inception of the contract to all deliverables based on their relative selling price. The relative selling price for each deliverable is determined using vendor specific objective evidence (VSOE) of selling price or third-party evidence of selling

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price if VSOE does not exist. If neither VSOE nor third-party evidence exists, the Company uses its best estimate of the selling price for the deliverable.

For transactions entered into prior to 2009, consideration was generally allocated to each unit of accounting based upon its relative fair value when objective and reliable evidence of fair value existed for all units of accounting in an arrangement. The fair value of an item was generally the price charged for the product, if the item was regularly sold on a stand-alone basis. In those instances when objective and reliable evidence of fair value existed for the undelivered items but not for the delivered items, the residual method was used to allocate the arrangement consideration. Under the residual method, the amount of arrangement consideration allocated to the delivered items equaled the total arrangement consideration less the aggregate fair value of the undelivered items. When the Company was unable to establish stand-alone value for delivered items or when fair value of undelivered items had not been established, revenue was deferred until all elements were delivered and services had been performed, or until fair value could objectively be determined for any remaining undelivered elements.

In order to establish VSOE of selling price, the Company must regularly sell the product or service on a standalone basis with a substantial majority priced within a relatively narrow range. VSOE of selling price is usually the midpoint of that range. If there are not a sufficient number of standalone sales and VSOE of selling price cannot be determined, then the Company considers whether third party evidence can be used to establish selling price. Due to the lack of similar products and services sold by other companies within the industry, the Company has rarely established selling price using third-party evidence. If neither VSOE nor third party evidence of selling price exists, the Company determines its best estimate of 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, the Company relies upon prices set by the Company s pricing committee adjusted for applicable discounts. The Company recognizes revenue for delivered elements only when it determines there are no uncertainties regarding customer acceptance.

In the first quarter of 2010, the Company offered an incentive with the launch of the HiSeq 2000 that enabled existing Genome Analyzer customers to trade in their Genome Analyzer and receive a discount on the purchase of a HiSeq 2000. The incentive was limited to customers who had purchased a Genome Analyzer as of the date of the announcement and was the first significant trade-in program offered by the Company. The Company accounts for HiSeq 2000 discounts related to the Genome Analyzer trade-in program in the period in which the HiSeq 2000 revenue is recognized.

Shipping and Handling Expenses

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

Research and Development

Research and development expenses consist of costs incurred for internal and grant-sponsored research and development. Research and development expenses include personnel expenses, contractor fees, facilities costs, and utilities. Expenditures relating to research and development are expensed in the period incurred.

Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs were $6.9 million, $4.2 million, and $3.4 million for the years ended January 2, 2011, January 3, 2010, and December 28, 2008, respectively.

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Leases

Leases are reviewed and classified as capital or operating at their inception. For leases that contain rent escalations, the Company records the total rent payable on a straight-line basis over the term of the lease, which includes the construction build-out period but excludes lease extension periods. The difference between rent payments and straight-line rent expense is recorded in other long-term liabilities. Landlord allowances are also recorded in other long-term liabilities, which are amortized on a straight-line basis over the lease term as a reduction to rent expense.

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 futur