UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

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

For the fiscal year ended December 28, 2008

or

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

For the transition period from to .

Commission file number: 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	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 ☑ No ☐

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

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

Indicate by check mark 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. ☐

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

Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ (Do not check if a smaller reporting company) 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 ☐ No ☑

As of February 2, 2009, there were 121,077,875 shares (excluding 17,927,983 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 June 27, 2008 (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 $4,849,118,890. This amount excludes an aggregate of 2,556,098 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 8, 2009 are incorporated by reference into Items 10 through 14 of Part III of this Report.

ILLUMINA, INC.

FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 28, 2008

TABLE OF CONTENTS

PART I

ITEM 1. *Business.*

This Annual Report on Form 10-K may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934. These statements relate to future events or our future financial performance. We have attempted to identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "should" or "will" or the negative of these terms or other comparable terminology. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks outlined under "Item 1A. Risk Factors" in this Annual Report, that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Accordingly, you should not unduly rely on these forward-looking statements, which speak only as of the date of this Annual Report. We are not under any duty to update any of the forward-looking statements after the date we file this Annual Report on Form 10-K or to conform these statements to actual results, unless required by law. You should, however, review the factors and risks we describe in the reports we file from time to time with the Securities and Exchange Commission.

Illumina®, Array of Arrays™, BeadArray™, BeadXpress®, CSPro®, DASL®, GoldenGate®, Genome Studio™, Infinium®, IntelliHyb®, iSelect®, Making Sense Out of Life®, Oligator®, Sentrix®, Solexa®, and VeraCode® are 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.

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 Securities and Exchange Commission (SEC). The SEC also maintains an Internet site at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that electronically file with the SEC. Copies of our annual report will be made available, free of charge, upon written request.

Overview

We are a leading developer, manufacturer and marketer of integrated systems for the large scale analysis of genetic variation and biological 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 products and services that currently serve the sequencing, genotyping and gene expression markets. In the future, we expect to enter the market for molecular diagnostics. Our customers include leading genomic research centers, pharmaceutical companies, academic institutions, clinical research organizations and biotechnology companies. Our tools provide researchers around the world with the performance, throughput, cost effectiveness and flexibility necessary to perform the billions of genetic tests needed to extract valuable medical information from advances in genomics and proteomics. We believe this information will enable researchers to correlate genetic variation and biological function, which will enhance drug discovery and clinical research, allow diseases to be detected earlier and permit better choices of drugs for individual patients.

On January 26, 2007, we completed the acquisition of Solexa, Inc. (Solexa) for 26.2 million shares of our common stock. As a result of that acquisition, we develop and commercialize sequencing technologies used to

perform a range of analyses, including whole genome re-sequencing, gene expression analysis and small RNA analysis. We believe we are the only company with genome-scale technology for sequencing, genotyping and gene expression, the three cornerstones of modern genetic analysis.

During the first quarter of 2008, we reorganized our operating structure into two newly created business segments, Life Sciences and Diagnostics. During 2008, the Diagnostics Business Unit had limited business activity and, accordingly, operating results were reported on an aggregate basis as one operating segment. In the future, at each reporting period end, we will reassess our reportable operating segments, particularly as we enter the market for molecular diagnostics.

On August 1, 2008, we completed the acquisition of Avantome, Inc. (Avantome). As consideration for the acquisition, we paid $25.8 million in cash and may pay up to an additional $35.0 million in contingent cash consideration based on the achievement of certain milestones. Avantome is a development stage company working on developing low-cost, long read sequencing technology. We expect this technology, if and when available as a product, to have applicability to both the research and diagnostic markets.

Our Strategy

Our goal is to make our Genome Analyzer, BeadArray and BeadXpress platforms the industry standards for products and services addressing the genetic analysis markets. We plan to achieve this by:

- focusing on emerging high-growth markets;
- seeking new and complementary technologies through strategic acquisitions and other investments;
- expanding our technologies into multiple product lines, applications and market segments; and
- strengthening our technological leadership.

Our Markets

Our current technologies serve three primary markets: next-generation sequencing, mid-to-high-complexity microarrays for genotyping and gene expression, and the "applied markets," the majority of which are comprised of agricultural research. Next-generation sequencing is the most rapidly growing of these three markets. 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. We believe our DNA sequencing systems, coupled with complementary technologies from strategic investments, including the acquisition of Avantome and our collaborative alliance with Oxford Nanopore Technologies will enable us to address numerous market segments with innovative solutions.

In 2009, we expect to enter the market for molecular diagnostics. The molecular diagnostic market is currently estimated at nearly $3 billion with the potential to grow to over $5 billion by 2012. This market assessment covers regulated assays and reagents, and does not factor in laboratory-developed tests, which account for a significant portion of the total market. The primary growth drivers in the molecular diagnostics market are 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 diagnostic tests. We believe our Veracode technology platform is ideally suited to provide a cost-effective, high-throughput, mid- to low-multiplex solution to the molecular diagnostic market. We are planning to submit the platform for review by the Food and Drug Administration in 2009.

Industry Background

Genetic Variation and Biological Function

Every person inherits two copies of each gene, one from each parent. The two copies of each gene may be identical, or they may be different. These differences are referred to as genetic variation. Examples of the physical consequences of genetic variation include differences in eye and hair color. Genetic variation can also have important medical consequences. Genetic variation affects disease susceptibility, including predisposition

to cancer, diabetes, cardiovascular disease and Alzheimer's disease. In addition, genetic variation may cause people to respond differently to the same drug treatment. Some people may respond well, others may not respond at all, and still others may experience adverse side effects. A common form of genetic variation is a single-nucleotide polymorphism, or SNP. A SNP is a variation in a single position in a DNA sequence. It is estimated that the human genome contains over ten million SNPs.

While in some cases a single SNP will be responsible for medically important effects, it is now believed that combinations of SNPs may contribute to the development of most common diseases. Since there are millions of SNPs, it is important to investigate many representative, well-chosen SNPs simultaneously in order to discover medically valuable information.

Another contributor to disease and dysfunction is the over- or under-expression of genes within an organism's cells. A very complex network of genes interacts to maintain health in complex organisms. The challenge for scientists is to delineate the associated genes' expression patterns and their relationship to disease. Until recently, this problem was addressed by investigating effects on a gene-by-gene basis. This is time consuming and difficulties exist when several pathways cannot be observed or "controlled" at the same time. With the advent of microarray technology, thousands of genes can now be tested at the same time.

There are multiple methods of studying genetic variation and biological function, including sequencing, SNP genotyping and gene expression profiling, each of which is uniquely addressed in our breadth of products and services. Our broad portfolio of current products and services supports a range of applications, from highest multiplexing (for whole-genome discovery and profiling) to mid-and low-multiplexing options (for high-throughput targeted screening).

Sequencing

DNA sequencing is the process of determining the order of bases (A, C, G or T) in a DNA sample, which can be further divided into *de novo* sequencing, re-sequencing and tag sequencing. In *de novo* sequencing, the goal is to determine the sequence of a representative sample from a species never before sequenced. Understanding the similarities and differences in DNA sequence between many species can help our understanding of the function of the protein structures encoded in the DNA.

In re-sequencing, the sequence of samples from a given species is determined and compared to a standard or reference sequence to identify changes that reflect genetic variation. Re-sequencing studies can be performed on a genome-wide basis, which is referred to as whole-genome re-sequencing, or on targeted areas of the genome (for example, regions identified by genome-wide association study), which is known as targeted re-sequencing. This is an extremely comprehensive form of genetic analysis, in which every base is characterized for possible mutations. We believe that these underlying discoveries will likely feed the development of new array products for broader testing and biomarker validation.

In tag sequencing, short sequences, often representative of a larger molecule or genomic location, are detected and counted. In these applications, the number of times that each tag is seen provides quantification of an underlying biological process. As an example, in digital gene expression, one or more tag sequences may be analyzed for each expressed gene, and the number of copies of these tags which are detected in an experiment is a measure of how actively that gene is being expressed in the tissue sample being analyzed. Similarly, a tag sequencing approach known as ChIP sequencing is used to determine the locations and extent of protein and DNA interactions throughout the genome.

SNP Genotyping

SNP genotyping is the process of determining which base (A, C, G or T) is present at a particular site in the genome within any organism. The most common use of SNP genotyping is for genome-wide association studies (GWAS) to look for an association between DNA sequence variants and a specific phenotype of interest. This is commonly done by studying the DNA of individuals that are affected by a common disease or that exhibit a specific trait against the DNA of control individuals who do not have this disease or trait. The use of SNP genotyping to obtain meaningful statistics on the effect of an individual SNP or a collection of

SNPs requires the analysis of millions of SNP genotypes and the testing of large populations for each disease. For example, a single large study could involve genotyping more than 1,000,000 SNPs per patient in more than 1,000 patients, thus requiring 1 billion assays. Using previously available technologies, this scale of SNP genotyping was both impractical and prohibitively expensive.

Large-scale SNP genotyping can be used in a variety of ways, including studies designed to understand the genetic contributions to disease (disease association studies), genomics based drug development, clinical trial analysis (responders and non-responders, and adverse event profiles), disease predisposition testing, and disease diagnosis. SNP genotyping can also be used outside of healthcare, for example in the development of plants and animals with commercially desirable characteristics. These markets will require billions of SNP genotyping assays annually.

Gene Expression Profiling

Gene expression profiling is the process of determining which genes are active in a specific cell or group of cells and is accomplished by measuring mRNA, the intermediary messenger between genes (DNA) and proteins. Variation in gene expression can cause disease, or act as an important indicator of disease or predisposition to disease. By comparing gene expression patterns between cells from different environments, such as normal tissue compared to diseased tissue or in the presence or absence of a drug, specific genes or groups of genes that play a role in these processes can be identified. Studies of this type, often used in drug discovery, require monitoring thousands, and preferably tens of thousands, of mRNAs in large numbers of samples. Once a smaller set of genes of interest has been identified, researchers can then examine how these genes are expressed or suppressed across numerous samples, for example, within a clinical trial.

As gene expression patterns are correlated to specific diseases, gene expression profiling is becoming an increasingly important diagnostic tool. Diagnostic use of expression profiling tools is anticipated to grow rapidly with the combination of the sequencing of various genomes and the availability of more cost-effective technologies.

Our Technologies

Sequencing Technology

Our DNA sequencing technology, acquired as part of the Solexa merger in the first quarter of 2007, is based on the use of our 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 which 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 which is added includes a fluorescent label which is specific to the particular base. Thus following incorporation, the fluorescence can be imaged, its color determined, and the base itself can be inferred. Once this is done, an additional step removes both the fluorescence and the blocking group that had prevented further extension of the second strand. This allows another base to be added, and the cycle can be repeated. Our technology is capable of generating several billion bases of DNA sequence from a single experiment with a single sample preparation. The reversible terminator bases that we use are novel synthetic molecules which we manufacture. They are not well incorporated by naturally occurring polymerases, so we have also developed proprietary polymerase enzymes for this purpose. Both the nucleotides and enzymes are the subject of significant intellectual property owned by us.

In our DNA sequencing systems, we apply the SBS biochemistry on microscopic islands of DNA, referred to as DNA clusters. Each cluster starts as a single DNA molecule, 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 500 to 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, tens 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.

BeadArray Technology

Our BeadArray technology combines microscopic beads and a substrate in a simple 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. We achieve high-throughput with a high density of test sites per array and we are able to format arrays either in a pattern arranged to match the wells of standard microtiter plates or in various configurations in the format of standard microscope slides. We seek to maximize cost effectiveness by reducing consumption of expensive reagents 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, or sensors, for different applications provides the flexibility to address multiple markets and market segments. We believe that these features have enabled our BeadArray technology to become a leading platform for the high-growth market of SNP genotyping and have allowed us to be a key player in the gene expression market.

Our proprietary BeadArray technology consists of prepared beads that self-assemble into microwells etched into an array substrate. We have deployed our BeadArray technology in two different array formats, the Array Matrix and the BeadChip. Our first bead based product was the Array Matrix which incorporates fiber optic bundles. Each bundle is comprised of approximately 50,000 individual fibers and 96 of these bundles are placed into an aluminum plate to form an Array Matrix. BeadChips are microscope slide-size silicon wafers with varying numbers of sample sites per slide. Both formats are chemically etched to create tens of thousands to tens of millions of wells for each sample site.

In a separate process, we create sensors by affixing a specific type of 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. For example, we create a batch of SNP sensors by attaching a particular DNA sequence, or a short segment of synthetically manufactured DNA called an oligonucleotide (oligo), to each bead in the batch. We combine batches of coated beads to form a pool specific to the type of array we intend to create. A bead pool one milliliter in volume contains sufficient beads to produce thousands of arrays.

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. The beads in the wells comprise our individual arrays. Because the beads assemble randomly into the wells, we perform a final procedure called "decoding" in order to determine which bead type occupies which well in the array. We employ several proprietary methods for decoding, 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. We believe we are the only microarray company to provide this level of quality control in the industry.

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. The iScan or BeadArray Reader detects the fluorescent dye by shining a laser on the fiber optic bundle or on the BeadChip. This allows the detection of the molecules resulting in a quantitative analysis of the sample.

VeraCode Technology

Our proprietary VeraCode technology platform leverages the power of digital holographic codes to provide a robust detection method for multiplex assays requiring high precision, accuracy and speed.

Commercially launched in March of 2007 for the research market, VeraCode enables low-cost multiplexing from 1 to 384-plex in a single well. At the heart of the VeraCode technology are cylindrical glass beads measuring 240 microns in length by 28 microns in diameter. Each VeraCode bead type is inscribed with a unique digital holographic code to designate and track the specific analyte or genotype of interest throughout the multiplex reaction. We believe the up to 24 bits of information inscribed in each code allows for an unprecedented level of error checking, improves the robustness of the optical readout process and provides a level of reliability that sets a new standard in multiplex testing. 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. This technology enables us to serve a number of markets including research, agriculture, forensics, pharmaceuticals and molecular diagnostics.

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. This enables 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 based on these various technologies. For the years ended December 28, 2008, December 30, 2007 and December 31, 2006, instrument sales comprised 32%, 33% and 23%, respectively, of total revenues and consumable sales represented 58%, 53% and 54%, respectively, of total revenues.

Our major products include the following:

Instrumentation

Product	Product Description	Applications	Launch Date
Genome Analyzer II	Instrument for high-throughput (14 — 18Gb per run) sequencing using Illumina sequencing by synthesis technology.	Whole-genome sequencing, targeted sequencing, gene expression discovery and profiling and epigenomics analysis.	Q1 2008
iScan System	High-resolution imaging instrument to rapidly scan our BeadArray based assays.	Array based whole-genome genotyping, gene expression and DNA methylation analysis.	Q1 2008
BeadXpress Reader	Low- to mid-multiplex, high-throughput instrument for readout of assays (e.g., biomarker validation and development of molecular diagnostics) deployed on VeraCode bead technology.	Low-multiplex genotyping, gene expression and protein analysis.	Q1 2007

Consumables

Product	Product Description	Applications	Launch Date
Standard Sequencing Kit	Reagents used for sequencing by synthesis chemistry on the Genome Analyzer.	Whole-genome sequencing, targeted sequencing, gene expression discovery and profiling and epigenomics analysis.	Q1 2007
Paired-End Genomic DNA Sample Prep Kit	Streamlined library preparation kit to generate 200 — 500 kb insert paired-end reads.	Whole-genome sequencing, targeted sequencing, gene expression discovery and profiling and epigenomics analysis.	Q2 2008
InfiniumHD Whole-Genome BeadChips	Multi-sample DNA Analysis microarrays that interrogate up to 1.2 million markers per sample. Product line includes Human1M-Duo, Human610-Quad, Human660W-Quad and HumanCytoSNP-12.	Array based whole-genome genotyping.	Q1 — Q4 2008
iSelect Custom Genotyping BeadChips	Customer designable SNP genotyping arrays for 6,000 to 200,000 markers for use with any species.	Array based custom genotyping.	Q2 2006
Whole-Genome Gene Expression BeadChips	Multi-sample expression profiling arrays with up-to-date content for human, mouse and rat.	Gene expression profiling and expression Quantitative Trait Loci (QTL) analysis.	FY05 — FY08

Our Services

Sequencing

We have been offering sequencing services on our Genome Analyzers since 2007. Our services range from small sets of samples requiring as little as one run to finish, to large-scale projects, like whole-genome sequencing, necessitating multiple instruments running in parallel for extended periods of time. The breadth of applications offered includes novel custom products as well as all released products. These applications include but are not limited to re-sequencing, de novo sequencing, small RNA discovery and profiling, gene expression using tag based or using random primed RNA sampling technology, ChIP SEQ and methylome interrogation.

Array

We have been offering FastTrack Genotyping Services since 2002. Our FastTrack Genotyping Services offers all of our genotyping products, including standard and custom GoldenGate, standard Infinium and Infinium HD, as well as iSelect Infinium. Our projects range in size from a few hundred samples to over 10,000 samples. Our current capacity peak is 450 million genotypes per day. Our customer base includes academic institutions, and biotech and pharmaceutical companies.

Intellectual Property

We have an extensive patent portfolio, including, as of February 1, 2009, ownership of, or exclusive licenses to, 135 issued U.S. patents and 168 pending U.S. patent applications, including four allowed applications that have not yet issued as patents, some of which derive from a common parent application. Our issued patents, which are directed at various aspects of our arrays, assays, oligo synthesis, sequencing technology, instruments and chemical detection technologies, expire between 2010 and 2026. We are seeking

to extend the patents directed at the full range of our technologies. We have received or filed counterparts for many of these patents and applications in one or more 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.

We are party to various exclusive and non-exclusive license agreements and other arrangements with third parties, which 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 at our use of BeadArray technology. These patents were filed by Dr. David Walt, 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 2010 and 2020. We also have additional nonexclusive licenses from 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 engineers and scientists 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 Oligator technologies and to support commercialization of the products and services derived from these technologies. As of December 28, 2008, we had a total of 406 employees engaged in research and development activities.

Our research and development expenses for 2008, 2007, and 2006 (inclusive of charges relating to stock-based compensation of $14.1 million, $10.0 million and $3.9 million, respectively) were $100.0 million, $73.9 million and $33.4 million, respectively. We expect research and development expense to increase during 2009 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 agricultural research. Our potential customers include pharmaceutical, biotechnology, agrichemical, diagnostics and consumer products companies, as well as academic or private research centers. The genetic analysis market is relatively new and emerging and its size and speed of development will be ultimately 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 and Asia-Pacific. In each of these areas, we have dedicated sales, service and application support personnel responsible for expanding and managing their respective customer bases. In smaller markets within Europe and Asia-Pacific,

we sell our products and provide services to customers through distributors that specialize in life science products. We expect to significantly increase our sales and distribution resources during 2009 and beyond as we launch a number of new products and expand the number of customers that can use our products.

Manufacturing

We manufacture our sequencing and array platforms, reagent kits, scanning equipment and oligos. Our manufacturing capacity for consumables has grown to support our increased customer demand during 2008. In the third quarter of 2008, we began shipping BeadChips from our new Singapore facility. We are also focused on continuing to enhance the quality and manufacturing yield of our Array Matrices, BeadChips and FlowCells. 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. While we have multiple commercial sources for many of our components and supplies, there are some raw materials we obtain from single source suppliers. If we are unable to secure a sufficient supply of those or other product components, our business could be temporarily interrupted. To mitigate this risk, we can redesign our products for alternative components or use alternative reagents. In addition, while we generally attempt to keep our inventory at minimal levels, we do purchase incremental inventory as circumstances warrant to protect our supply chain.

Competition

Although we expect that our products and services will provide significant advantages over products and services currently available from other sources, we expect to encounter intense competition from other companies that offer products and services for the sequencing, SNP genotyping and gene expression markets. These include companies such as Affymetrix, Agilent, Beckman Coulter, Complete Genomics, Fluidigm, GE Corp., Life Technologies, Luminex, Pacific Biosciences, Roche Diagnostics and Sequenom. 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. Rapid technological development may result in our products or technologies becoming obsolete. Products offered by us could be made obsolete either by less expensive or more effective products based on similar or other technologies. Although we believe that our technology and products will offer advantages that will enable us to compete effectively with these companies, we cannot assure you that we will be successful.

Segment and Geographic Information

During the first quarter of 2008, we reorganized our operating structure into a newly created Life Sciences Business Unit, which includes all products and services related to the research market, namely the Sequencing, BeadArray and BeadXpress product lines. We also created a Diagnostics Business Unit to focus on the emerging opportunity in molecular diagnostics. During 2008, we had limited activity related to the Diagnostics Business Unit and operating results were reported on an aggregate basis to our chief operating decision maker, the chief executive officer. Accordingly, we operated in one reportable segment during 2008.

We currently sell our products to a number of customers outside the United States, including customers in other areas of North America, Europe and Asia-Pacific. Shipments to customers outside the United States totaled $293.2 million, or 51% of our total revenue during 2008, compared to $159.1 million, or 43%, and

$81.5 million, or 44%, in 2007 and 2006, respectively. Sales to territories outside of the United States were generally denominated in U.S. dollars. In 2008, we reorganized our international structure to establish more efficient channels between 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 14 of the Notes to Consolidated Financial Statements for further information concerning our foreign and domestic operations.

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 academic customers spend unused budget allocations before the end of the government's fiscal year.

Environmental Matters

We are committed to the protection of our employees and the environment. Our operations require the use of hazardous materials which 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.

Employees

As of December 28, 2008, we had a total of 1,536 employees. None of our employees are 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.

Executive Officers

Our executive officers and their ages as of February 1, 2009, are as follows:

Jay Flatley, age 56, is President and Chief Executive Officer of Illumina. Prior to his appointment in 1999, Mr. Flatley was the President and Chief Executive Officer of Molecular Dynamics, later acquired by Amersham Pharmacia Biotech in 1998 and now a part of GE Healthcare. Mr. Flatley, who was a founder and member of the board of directors for Molecular Dynamics, lead the company to its initial public offering (IPO) in 1993, in addition to helping the company develop and launch over 15 major instrumentation systems, including the world's first capillary based DNA sequencer. Prior to joining Molecular Dynamics, Mr. Flatley was Vice President of Engineering and Strategic Planning for Plexus Computers, a manufacturer of high-performance Unix super-microcomputers. Before his career at Plexus, Mr. Flatley was Executive Vice President for Manning Technologies and held various manufacturing positions while working for the Autolab division of Spectra Physics.

Christian Henry, age 40, is Senior Vice President and Chief Financial Officer. Mr. Henry joined Illumina in June 2005 and is responsible for worldwide financial operations, controllership functions and facilities management. In addition, throughout 2008, Mr. Henry was Acting General Manager of Illumina's DNA Sequencing business. Mr. Henry served previously as the Chief Financial Officer for Tickets.com, a publicly traded, online ticket provider that was acquired by Major League Baseball Advanced Media, LP. Prior to that,

Mr. Henry was Vice President, Finance and Corporate Controller of Affymetrix, Inc., a publicly traded life sciences company, where he oversaw accounting, planning, SEC and management reporting, treasury and risk management. He previously held a similar position at Nektar Therapeutics (formerly Inhale Therapeutic Systems, Inc.).

Christian Cabou, age 60*,* is Senior Vice President, General Counsel and Secretary of Illumina. Mr. Cabou joined Illumina in May 2006 and has worldwide responsibility for all legal and intellectual property matters. Mr. Cabou is also Illumina's Code of Ethics Compliance Officer. Before joining Illumina, Mr. Cabou spent five years as General Counsel for GE Global Research and, before that, was Senior Counsel of Global Intellectual Property for GE Medical Systems. Prior to his position at GE, Mr. Cabou spent seven years with the law firm Foley & Lardner where he was a partner. He had twenty years of experience in engineering design and management prior to his career in law and intellectual property.

Greg Heath, age 51, is Senior Vice President & General Manager, Diagnostics Business Unit of Illumina. Dr. Heath joined Illumina in March 2008 and is responsible for managing Illumina's emerging diagnostics business, specifically overseeing the development of diagnostic content for the BeadXpress system, and ultimately for Illumina's sequencing platform. Dr. Heath joined Illumina from Roche Molecular Systems where he held a number of senior executive positions, including head of clinical genomics, senior vice president of global product marketing, senior vice president of global marketing and business development, and most recently, senior vice president of global business. From 2000 — 2003, Dr. Heath was head of business development and licensing for the diagnostics division of F. Hoffman La Roche in Basel. Prior to this, Dr. Heath held numerous roles in marketing and business development with Roche Diagnostics' U.S. affiliate.

Joel McComb, age 44, is Senior Vice President & General Manager, Life Sciences Business Unit of Illumina. Mr. McComb joined Illumina in March 2008 and is responsible for managing all products and services related to the research market, namely the Sequencing, BeadArray and VeraCode product lines. Mr. McComb joined Illumina from GE Healthcare where he held a number of executive positions, including president of the interventional medicine business and president of life sciences discovery systems. From 2001 — 2004, Mr. McComb was president, chief executive officer and board member of Innovadyne Technologies. Prior to Innovadyne, Mr. McComb held various positions at Beckman Coulter, including roles as general manager of the primary care diagnostic division and director of corporate business development.

Tristan Orpin, age 42, is Senior Vice President, Commercial Operations of Illumina. Mr. Orpin joined Illumina in December 2002 in the role of Vice President of Worldwide Sales, and in January of 2007 was promoted to the position of Senior Vice President of Commercial Operations. Before joining Illumina, Mr. Orpin was Director of Sales and Marketing for Sequenom from September 1999 to August 2001. Later, Mr. Orpin was elected Vice President of Sales and Marketing and held this position from August 2001 to November 2002. Prior to 2001, Mr. Orpin served in several senior sales and marketing positions at Bio-Rad Laboratories.

Mostafa Ronaghi, Ph.D., age 40, is Senior Vice President and Chief Technology Officer of Illumina. Dr. Ronaghi joined Illumina in August 2008 and is responsible for leading internal research programs and evaluating new technologies for the Company. In 2007, Dr. Ronaghi co-founded Avantome, a privately held sequencing company. Before this, he co-founded NextBio, a search engine for life science data. In 2001, Dr. Ronaghi co-founded ParAllele Bioscience, which was eventually acquired by Affymetrix, Inc., and was involved in the development and commercialization of highly multiplexed technology for genetic testing. In 1997, he co-founded Pyrosequencing AB, which was renamed Biotage in 2003. In June 2000, the company completed a successful initial public offering on the Stockholm Stock Exchange. Dr. Ronaghi was a principal investigator at Stanford University from 2002 — 2008 where he focused on the development of novel tools for molecular diagnostic applications.

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 expect intense competition in our target markets, which could render our products obsolete, result in significant price reductions or substantially limit the volume of products that we sell. This would limit our ability to compete and maintain profitability. If we cannot continuously develop and commercialize new products, our revenue may not grow as intended.

We compete with life sciences companies that design, manufacture and market instruments for analysis of genetic variation and biological function and other applications using technologies, capillary electrophoresis, mass spectrometry, flow cytometry, microfluidics, nanotechnology, next-generation DNA sequencing and mechanically deposited, inkjet and photolithographic arrays. We anticipate that we will face increased competition in the future as existing companies develop new or improved products and as new companies enter the market with new technologies. The markets for our products are characterized by rapidly changing technology, evolving industry standards, changes in customer needs, emerging competition, new product introductions and strong price competition. For example, prices per data point for genotyping have fallen significantly over the last two years and we anticipate that prices will continue to fall. 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 develop competing products. For example, during the third quarter of fiscal 2007, Life Technologies (previously referred to as Applied Biosystems Group, a business segment of Applera Corporation) launched the SOLiD™ System, its next generation sequencing technology. If we are unable to develop enhancements to our technology and rapidly deploy new product offerings, our business, financial condition and results of operations will suffer.

Negative conditions in global credit markets may result in delayed payments from our customers and may negatively impact our smaller suppliers.

The recent economic conditions and market turbulence may impact the operations of certain of our customers and suppliers. 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. In addition, due to discontinuing parts, suppliers may also extend lead times, limit supplies or increase prices due to capacity constraints or other factors.

In addition, our business depends on the overall demand for methods of analysis of genetic variation and biological function. We rely in large part on the research and development spending of our customers, which is often discretionary, and the recent economic downturn has caused many companies to reduce their research and development budgets. If the current worldwide economic downturn continues, our customers may delay or reduce their purchases of our products and services. A reduction in demand will reduce our revenues and harm our profitability.

Due to our increasing foreign operations, fluctuations in foreign currency exchange rates could negatively impact our results of operations.

We are focused on expanding our international operations in key markets. We have sales offices located internationally throughout Europe and the Asia Pacific region, as well as manufacturing facilities in the United Kingdom and Singapore. During 2008, the majority of our sales to international customers and purchases of raw materials from international suppliers were denominated in the U.S. dollar. 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 may 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 and thus adversely impact our business or financial conditions.

If we are unable to find third-party manufacturers to manufacture components of our products, we may not be able to launch or support our products in a timely manner, or at all.

The nature of our products requires customized components that currently are available from a limited number of sources. For example, we currently use multiple components in our products that are single-sourced. If we are unable to secure a sufficient supply of those or other product components, we will be unable 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 assure you that we will be able to do this on a timely basis, for sufficient quantities or on commercially reasonable terms. Accordingly, we may not be able to establish or maintain reliable, high-volume manufacturing at commercially reasonable costs.

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. 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 products or technologies.

Our planned activities will require additional expertise in specific industries and areas applicable to the products developed through our technologies, including the life sciences and healthcare industries. Thus, we will need to add new personnel, including management, and develop the expertise of existing management. The failure to do so could impair the growth of our business.

We may encounter difficulties in managing our growth. These difficulties could impair our profitability.

We have experienced and expect to continue to experience rapid and substantial growth in order to achieve our operating plans, which will place a strain on our human and capital resources. If we are unable to manage this growth effectively, our profitability could suffer. Our ability to manage our operations and growth effectively 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. 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. Failure to attract and retain sufficient numbers of talented employees will further strain our human resources and could impede our growth.

A significant portion of our sales is to international customers.

Shipments to customers outside the United States comprised 51%, 43% and 44% of our revenue for the years ended December 28, 2008, December 30, 2007 and December 31, 2006, respectively. We intend to continue to expand our international presence by selling to customers located outside of the U.S. and we expect the total amount of non-U.S. sales to continue to grow. Export sales entail a variety of risks, including:

- longer payment cycles and difficulties in collecting accounts receivable outside of the United States;
- 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 import 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.

In addition, we are also subject to general geopolitical risks, such as political, social and economic instability and changes in diplomatic and trade relations. One or more of these factors could have a material adverse effect on our business, financial condition and operating results.

We may encounter difficulties in integrating acquisitions that could adversely affect our business, specifically the effective launch and customer acceptance of new technology platforms.

We have made, and may in the future make, acquisitions of or significant investments in businesses with complementary products, services or technologies. Acquisitions involve numerous risks, including, but not limited to:

- difficulties in integrating the operations, technologies, products and personnel of acquired companies;
- lack of synergies or the inability to realize expected synergies and cost-savings;
- difficulties in managing geographically dispersed operations;
- revenue and expense levels of acquired entities differing from those anticipated at the time of the acquisitions;
- negative near-term impacts on financial results after an acquisition;
- 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 from normal daily operations of the business;
- inconsistencies in standards, controls, procedures and policies; and
- the impairment of intangible assets as a result of technological advancements, or worse-than-expected performance of acquired companies;

Acquisitions and other transactions are inherently risky and our previous or future transactions may not be successful. The inability to effectively manage the risks associated with these transactions could materially and adversely affect our business, financial condition or results of operations.

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

Our success will depend in part on our ability 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 protecting their proprietary rights abroad. These challenges can be caused by the absence of rules and methods for the establishment and enforcement of intellectual property rights abroad.

The patent positions of companies developing tools for the life sciences 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. 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 may also arise. Any finding that our patents and applications are unenforceable could harm our ability to prevent others from practicing the related technology, and a finding that others have inventorship 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.

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 also is 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 secret protection for our confidential and proprietary information and have taken security measures to protect this information. These measures, however, may not provide adequate protection for our trade secrets 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. Nevertheless, employees, collaborators or consultants may still disclose our confidential information, and we may not otherwise be able to protect effectively our trade secrets. Accordingly, others may gain access to our confidential information, or may independently develop substantially equivalent information or techniques.

Litigation or 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 or impact our stock price.

Our commercial success depends, in part, on our non-infringement of the patents or proprietary rights of third parties and on our ability to protect our own intellectual property. 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 a material 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 and sell products, and could result in the

award of substantial damages against us. In the event of a successful claim of infringement 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. 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 could materially affect our ability to grow and maintain profitability.

Changes in our effective income tax rate could impact our profitability.

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, and the result of examinations by various tax authorities.

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 ramp up our 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 2009, there are uncertainties inherent in expanding our manufacturing capabilities and we may not be able to 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. 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 that have temporarily reduced production yields. Due to the intricate nature of manufacturing 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 or floods. If a natural disaster were to significantly damage one of our facilities 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 would prevent us from achieving our expected shipments in any given period.

We expect that our results of operations will fluctuate. This fluctuation could cause our stock price to decline.

Our revenue is subject to fluctuations due to the timing of sales of high-value products and services projects, the impact of seasonal spending patterns, the timing and size of research projects our customers perform, changes in overall spending levels in the life sciences industry, and other unpredictable factors that may affect customer ordering patterns. 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. 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. Accordingly, if revenue does not grow as anticipated, we may not be able to maintain annual 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. Due to the possibility of fluctuations in our revenue and expenses, 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.

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 and pharmaceutical industries. The usefulness of our technology 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 biological function, namely sequencing, SNP 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 seek or be able to convert raw genetic data into medically valuable information through the analysis of genetic variation and biological function. 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.

Loss of the tax deduction on our outstanding convertible notes.

We could lose some or all of the tax deduction for interest expense associated with our $400.0 million aggregate principal amount of convertible notes due in 2014 if the foregoing notes are not subject to the special Treasury Regulations governing integration of certain debt instruments, the notes are converted, or we invest in non-taxable investments.

We may not be able to sustain operating profitability.

Prior to 2006, we had incurred net losses each year since our inception, and in 2007 we reported a net loss of $278.4 million, reflecting significant charges associated with our acquisition of Solexa in January 2007 and the settlement of our litigation with Affymetrix. As of December 28, 2008, our accumulated deficit was $332.5 million. 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. Non-cash stock-based compensation expense and expenses related to prior and future acquisitions are also likely to continue to adversely affect our future profitability. We expect to continue incurring significant expenses related to research and development, sales and marketing efforts to commercialize our products and the continued development of our manufacturing capabilities. In addition, 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. Although we have regained profitability, we may not be able to sustain profitability on a quarterly basis.

Negative conditions in the global credit markets may impair the liquidity of a portion of our investment portfolio.

Our investment securities consist of marketable debt securities, including treasury bills and commercial paper with strong credit ratings, corporate bonds and short maturity mutual funds providing similar financial returns. Additionally, as of December 28, 2008, we had $55.9 million of auction rate securities issued primarily by municipalities and universities. These securities are debt instruments with a long-term maturity and with an interest rate that is reset in short intervals through auctions. Our entire auction rate portfolio is held in a brokerage account with UBS Financial Services, Inc., a subsidiary of UBS AG (UBS) and is currently rated AAA or AA by a rating agency. Beginning in February 2008, these auction rate securities became illiquid because their scheduled auctions failed to settle. An auction failure occurs when the parties wishing to sell securities at auction cannot. As of December 28, 2008, the securities continued to fail auction and remained illiquid.

Various regulatory agencies initiated investigations into the sales and marketing practices of several banks and broker-dealers, including UBS, which sold auction rate securities, alleging violations of federal and state laws. Along with several other broker-dealers, UBS subsequently reached a settlement with the federal and state regulators that required them to repurchase auction rate securities from certain investors at par at some future date. In November 2008, we signed a settlement agreement to sell our auction rate securities at par value to UBS during the period of June 30, 2010 through July 2, 2012.

The settlement agreement with UBS and the associated put option mitigates the risk of loss on our auction rate security portfolio. However, given the negative conditions in the global credit markets there is still risk that UBS may not be able to fulfill its obligation.

Item 1B. *Unresolved Staff Comments.*

None.

Item 2. *Properties.*

The following chart indicates the facilities we lease as of December 28, 2008, the location and size of each such facility and their designated use. During 2008, we expanded our facilities and leased additional space to accommodate growth in our business. We anticipate continuing to expand our facilities over the next several years as we continue to expand our worldwide commercial operations and our manufacturing capabilities.

Location	Approximate Square Feet	Operation	Lease Expiration Dates
San Diego, CA	289,300	R&D, Manufacturing, Storage, Distribution and Administrative	2008 – 2023
Hayward, CA	148,000	R&D, Manufacturing and Administrative	2008 – 2013
Singapore	36,100	Manufacturing and Administrative	2010 – 2013
Little Chesterford, United Kingdom	28,500	R&D, Manufacturing and Administrative	2009
Tokyo, Japan	9,800	Sales and Administrative	2009 – 2014
Netherlands	9,300	Distribution and Administrative	2011
Melbourne, Australia	3,900	Sales and Administrative	2013

In February 2008, we agreed to lease an additional facility in Little Chesterford, United Kingdom that is in the process of being constructed for research and development, manufacturing and administrative purposes. This facility covers approximately 41,500 square feet. We expect to occupy this new building by the end of 2009.

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

In the recent past, we incurred substantial costs in defending ourselves against patent infringement and patent ownership claims and expect, going forward, to devote substantial financial and managerial resources to protect our intellectual property and to defend against any future claims asserted against us. From time to time, we may also be parties to other litigation in the ordinary course of business. While the results of any litigation are uncertain, management does not believe the ultimate resolution of its legal matters will result in a material adverse impact to us.

Applied Biosystems Litigation

On December 26, 2006, the Applied Biosystems Group of Applera Corporation (Applied Biosystems) filed suit in California Superior Court, Santa Clara County against Solexa (which we acquired on January 26, 2007). This State Court action related to the ownership of several patents assigned in 1995 to Solexa's predecessor company (Lynx Therapeutics) by a former employee (Dr. Stephen Macevicz), who is the inventor of these patents and is named as a co-defendant in the suit. The Macevicz patents are directed to methods for sequencing DNA (US Pat. Nos. 5,750,341 and 6,306,597) using successive rounds of oligonucleotide probe ligation (sequencing-by-ligation), and to a probe (5,969,119) used in connection with these sequencing methods. Lynx was originally a unit of Applied Biosystems but was spun out in 1992. On May 31, 2007, Applied Biosystems filed a second suit, this time against us, in the U.S. District Court for the Northern District of California. This second suit sought a declaratory judgment of non-infringement of the Macevicz patents that were the subject of the State Court action mentioned above. Both suits were later consolidated in the U.S. District Court for the Northern District of California, San Francisco Division. By these consolidated actions, Applied Biosytems was seeking ownership of the three Macevicz patents, unspecified costs and damages, and a declaration of non-infringement and invalidity of these patents. Applied Biosystems was not asserting any claim for patent infringement against us.

On January 5, 2009, the case went to trial in two phases. The first phase addressed the determination of ownership of the patents-in-suit, and the second phase addressed whether these patents were valid and infringed by Applied Biosystems. On January 14, 2009, at the end of the first phase, a federal jury determined that Solexa was the rightful owner of all three Macevicz patents. On January 27, 2009, the same jury found that Applied Biosystems did not infringe the '119 probe patent and that the '119 patent was valid. In August 2008, the court had ruled that Applied Biosystems' two-base system did not infringe the '341 and '597 patents. Prior to the jury finding of non-infringement of the '119 patent, Applied Biosystems conceded its one-base system infringed claim 1 of the '597 patent and Solexa conceded invalidity of that same claim under the court's construction of that claim. Both parties reserved the right to appeal the court's construction of claim 1 of the '597 patent, among other things.

Our Genome Analyzer products use a different technology, called Sequencing-by-Synthesis (SBS), which is not covered by any of the Macevicz patents. In addition, we have no plans to use any of the Sequencing-by-Ligation technologies covered by these patents.

Item 4. ***Submission of Matters to a Vote of Security Holders.***

No matters were submitted to a vote of security holders during the fourth quarter of fiscal 2008.

PART II

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

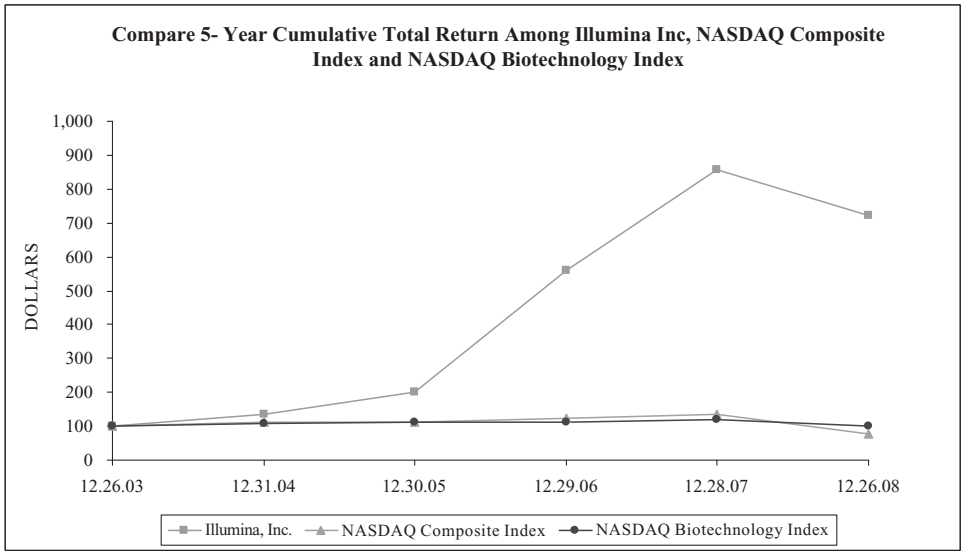
Market Information

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 periods indicated, the quarterly high and low sales prices per share of our common stock as reported on The NASDAQ Global Select Market and has been adjusted to reflect the two-for-one split of our common stock that was effected in the form of a 100% stock dividend on September 22, 2008.

	2008		2007	
	High	Low	High	Low
First Quarter	$38.30	$27.89	$21.10	$14.06
Second Quarter	43.50	34.90	21.04	14.47
Third Quarter	47.88	36.97	26.94	20.02
Fourth Quarter	42.32	18.82	31.69	25.17

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 December 26, 2003 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 2, 2009 we had 476 record holders and 56,709 beneficial holders of our common stock.

Dividends

Our present policy is to retain earnings, if any, to finance future growth. 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 are convertible into 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

On October 23, 2008, our board of directors authorized a $120.0 million stock repurchase program, which was announced October 24, 2008. The following table summarizes shares repurchased pursuant to this program during the quarter ended December 28, 2008:

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)
September 29 – October 26, 2008	92,969	$23.67	92,969	$117,797,090
October 27 – November 23, 2008	2,915,514	22.80	2,915,514	51,260,959
November 24 – December 28, 2008	100,400	20.35	100,400	49,215,398
Total	3,108,883	$22.75	3,108,883	$ 49,215,398

(1) All shares purchased were in connection with the Company's $120.0 million stock repurchase program announced October 24, 2008 and were made in open-market transactions or through privately negotiated transactions in compliance with Rule 10b-18 under the Securities Exchange Act of 1934.

Sales of Unregistered Securities

None during the fourth quarter of fiscal 2008.

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 December 28, 2008.

Statement of Operations Data

	Year Ended December 28, 2008 (52 weeks)	Year Ended December 30, 2007 (52 weeks)	Year Ended December 31 2006 (52 weeks)	Year Ended January 1, 2006 (52 weeks)	Year Ended January 2, 2005 (53 weeks)
	(In thousands, except per share data)				
Total revenue	$573,225	$ 366,799	$184,586	$ 73,501	$50,583
Income (loss) from operations(1),(2),(3)	80,457	(301,201)	37,812	(21,447)	(5,513)
Net income (loss)	50,477	(278,359)	39,968	(20,874)	(6,225)
Net income (loss) per share:					
Basic	0.43	(2.57)	0.45	(0.26)	(0.09)
Diluted	0.38	(2.57)	0.41	(0.26)	(0.09)
Shares used in calculating net income (loss) per share(4):					
Basic	116,855	108,308	89,002	80,294	71,690
Diluted	133,607	108,308	97,508	80,294	71,690

Balance Sheet Data

	December 28, 2008	December 30, 2007	December 31, 2006	January 1, 2006	January 2, 2005
			(In thousands)		
Cash, cash equivalents and short-term investments(3),(5),(6),(7)	$ 640,075	$386,082	$130,804	$ 50,822	$66,994
Working capital	355,379	397,040	159,950	57,992	64,643
Total assets	1,377,100	987,732	300,584	100,610	94,907
Current portion of long-term debt(7)	399,999	—	—	—	—
Long-term debt, less current portion(7)	—	400,000	—	54	—
Total stockholders' equity(1),(5),(6)	848,596	411,678	247,342	72,497	72,262

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. In August 2008, we completed our acquisition of Avantome. As consideration, we paid $25.8 million in cash and may pay up to an additional $35.0 million in contingent cash consideration based on the achievement of certain milestones. In January 2007, we completed our acquisition of Solexa in a stock for stock merger transaction for a total purchase price of $618.7 million. In April 2005, we completed our acquisition of Cyvera Corporation for a total purchase price of $17.8 million. As part of the accounting for the acquisitions, we recorded charges to write-off acquired in-process research and development, or IPR&D, of $24.7 million, $303.4 million and $15.8 million during the fiscal years ended December 28, 2008, December 30, 2007 and January 1, 2006, respectively. See Note 2 of Notes to Consolidated Financial Statements for further information regarding our Avantome and Solexa acquisitions.

(2) We adopted Statement of Financial Accounting Standards (SFAS) 123(R), *"Share-Based Payment,"* on January 2, 2006 using the modified prospective transition method. Because we elected to use the modified prospective transition method, results for prior periods have not been restated to include share-based compensation expense. See Note 1 and Note 10 of Notes to Consolidated Financial Statements for further information.

(3) 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. See Note 5 of Notes to Consolidated Financial Statements.

(4) Adjusted to reflect a two-for-one stock split effective September 22, 2008. For an explanation of the determination of the number of shares used to compute basic and diluted net income (loss) per share, see Note 1 of Notes to Consolidated Financial Statements.

(5) 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 $342.6 million. See Note 10 of Notes to Consolidated Financial Statements.

(6) For the years ended December 28, 2008 and December 30, 2007, we repurchased 3.1 million and 14.8 million shares, respectively, of common stock for $70.8 million and $251.6 million, respectively. See Note 10 of Notes to Consolidated Financial Statements.

(7) In February 2007, we issued $400.0 million principal amount of 0.625% Convertible Senior Notes due 2014. As of December 28, 2008, the principal amount of these Notes is classified as current liabilities since the conditions to convertibility were satisfied during the third calendar quarter of 2008. See Note 8 of Notes to Consolidated Financial Statements.

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

The purpose of the following discussion and analysis is to provide an overview of the business to help facilitate an understanding of significant factors influencing our historical operating results, financial condition and cash flows and also to convey our expectations of the potential impact of known trends, events, or uncertainties that may impact our future results. The following discussion and analysis should be read in conjunction with "Item 6. Selected Financial Data" and our consolidated financial statements and notes thereto included elsewhere in this Annual Report on Form 10-K. The discussion and analysis in this Annual Report on Form 10-K contains forward-looking statements that involve risks and uncertainties, such as statements of our plans, strategies, objectives, expectations, intentions and adequacy of resources. Words such as "anticipate," "believe," "continue," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project" or similar words or phrases, or the negatives of these words, may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward looking. Examples of forward-looking statements include, among others, statements regarding the integration of our acquired technologies with our existing technology, the commercial launch of new products and the duration which our existing cash and other resources is expected to fund our operating activities.

Forward-looking statements are subject to known and unknown risks and uncertainties and are based on potentially inaccurate assumptions that could cause actual results to differ materially from those expected or implied by the forward looking statements. Factors that could cause or contribute to these differences include those discussed in "Item 1A. Risk Factors" as well as those discussed elsewhere. The risk factors and other cautionary statements made in this Annual Report on Form 10-K should be read as applying to all related forward-looking statements wherever they appear in this Annual Report on Form 10-K.

Overview

We are a leading developer, manufacturer and marketer of integrated systems for the large scale analysis of genetic variation and biological function. Using our proprietary technologies, we provide a comprehensive line of products and services that currently serve the sequencing, genotyping and gene expression markets. In the future, we expect to enter the market for molecular diagnostics. Our customers include leading genomic research centers, pharmaceutical companies, academic institutions, clinical research organizations and biotechnology companies. Our tools provide researchers around the world with the performance, throughput, cost effectiveness and flexibility necessary to perform the billions of genetic tests needed to extract valuable medical information from advances in genomics and proteomics. We believe this information will enable researchers to correlate genetic variation and biological function, which will enhance drug discovery and clinical research, allow diseases to be detected earlier and permit better choices of drugs for individual patients.

On January 26, 2007, we completed the acquisition of Solexa for 26.2 million shares of our common stock. As a result of that acquisition, we develop and commercialize genetic analysis technologies used to perform a range of analyses, including whole genome re-sequencing, gene expression analysis and small RNA analysis. We believe we are the only company with genome-scale technology for sequencing, genotyping and gene expression, the three cornerstones of modern genetic analysis.

During the first quarter of 2008, we reorganized our operating structure into two newly created business segments, Life Sciences and Diagnostics. During 2008, the Diagnostics Business Unit had limited business activity and, accordingly, operating results were reported on an aggregate basis as one operating segment. In the future, at each reporting period end, we will reassess our reportable operating segments, particularly as we enter the market for molecular diagnostics.

On August 1, 2008, we completed the acquisition of Avantome. As consideration for the acquisition, we paid $25.8 million in cash and may pay up to an additional $35.0 million in contingent cash consideration based on the achievement of certain milestones. Avantome is a development stage company working on developing low-cost, long read sequencing technology. We expect this technology, if and when available as a product, to have applicability to both the research and diagnostic markets.

Our revenue is subject to fluctuations due to the timing of sales of high-value products and service projects, the impact of seasonal spending patterns, the timing and size of research projects our customers perform, changes in overall spending levels in the life science industry and other unpredictable factors that may affect our customer ordering patterns. Any significant delays in the commercial launch or any lack or delay of commercial acceptance of new products, unfavorable sales trends in our existing product lines, or impacts from the other factors mentioned above, could adversely affect our revenue growth or cause a sequential decline in quarterly revenue. Due to the possibility of fluctuations in our revenue and net income or loss, we believe quarterly comparisons of our operating results are not a good indication of our future performance.

As of December 28, 2008, our accumulated deficit was $332.5 million and total stockholders' equity was $848.6 million. Our losses have principally occurred as a result of acquired in-process research and development (IPR&D) charges of $24.7 million related to our acquisition of Avantome in 2008 and $303.4 million related to our acquisition of Solexa in 2007, the substantial resources required for the research, development and manufacturing scale-up effort required to commercialize our products and services and a charge of $54.5 million in 2007 primarily related to settlement of our litigation with Affymetrix. We expect to continue to incur substantial costs for research and development over the next several years. We will also need to increase our selling, general and administrative costs as we build up our sales and marketing infrastructure to expand and support the sale of systems, other products and services.

Critical Accounting Policies and Estimates

General

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 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, actual results may be different from the estimates. Our critical accounting policies are those that affect our financial statements materially and involve difficult, subjective or complex judgments by management. Management has discussed the development and selection of these critical accounting policies with the audit committee of our board of directors, and the audit committee has reviewed the disclosure. Our accounting policies are more fully described in Note 1 of the Consolidated Financial Statements.

Revenue Recognition

Our revenue is generated primarily from the sale of products and services. Product revenue consists of sales of arrays, reagents, flow cells, instrumentation, oligonucleotides (oligos) and associated freight charges. Service and other revenue 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.

We recognize revenue in accordance with the guidelines established by SEC Staff Accounting Bulletin (SAB) No. 104, *Revenue Recognition*. Under SAB No. 104, revenue cannot be recorded until all of the following criteria have been met: 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. All revenue is recorded net of any applicable allowances for returns or discounts.

Revenue for product sales is recognized generally upon shipment and transfer of title to the customer, provided no significant obligations remain and collection of the receivables is reasonably assured. Revenue from the sale of instrumentation is recognized when earned, which is generally upon shipment. Revenue for genotyping and sequencing services is recognized when earned, which is generally at the time the genotyping or sequencing analysis data is delivered to the customer.

In order to assess whether the price is fixed and determinable, we ensure there are no refund rights. If payment terms are based on future performance or a right of return exists, we defer revenue recognition until the price becomes fixed and 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 the time collection becomes reasonably assured, which is generally upon receipt of payment. Changes in judgments and estimates regarding application of SAB No. 104 might result in a change in the timing or amount of revenue recognized.

Sales of instrumentation generally include a standard one-year warranty. We also sell separately priced maintenance (extended warranty) contracts, which are generally for one or two years, upon the expiration of the initial warranty. Revenue for extended warranty sales is recognized ratably over the term of the extended warranty period. Reserves are provided for estimated product warranty expenses at the time the associated revenue is recognized. If we were to experience an increase in warranty claims or if costs of servicing our warrantied products were greater than our estimates, gross margins could be adversely affected.

While the majority of our sales agreements contain standard terms and conditions, we do enter into agreements that contain multiple elements or non-standard terms and conditions. Emerging Issues Task Force (EITF) No. 00-21, *Revenue Arrangements with Multiple Deliverables,* provides guidance on accounting for arrangements that involve the delivery or performance of multiple products, services, or rights to use assets within contractually binding arrangements. Significant contract interpretation is sometimes required to determine the appropriate accounting, including whether the deliverables specified in a multiple element arrangement should be treated as separate units of accounting for revenue recognition purposes, and if so, how the price should be allocated among the deliverable elements, when to recognize revenue for each element, and the period over which revenue should be recognized. We recognize revenue for delivered elements only when we determine that the fair values of undelivered elements are known and there are no uncertainties regarding customer acceptance.

Investments

Effective January 1, 2008, we adopted Statement of Financial Accounting Standards (SFAS) No. 157, *Fair Value Measurement*. In February 2008, the Financial Accounting Standards Board (FASB) issued FASB Staff Position (FSP) No. SFAS 157-2, *Effective Date of FASB Statement No. 157*, which provides a one-year deferral of the effective date of SFAS No. 157 for non-financial assets and non-financial liabilities, except those that are recognized or disclosed in the financial statements at fair value at least annually. In October 2008, the FASB issued FASB FSP SFAS 157-3, *Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active*. The FSP clarifies the application of FASB Statement No. 157, *Fair Value Measurements*, in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active.

We determine fair value of our financial assets and liabilities in accordance with SFAS No. 157 and 157-3. Fair value is defined under SFAS No. 157 as 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 under SFAS No. 157 must maximize the use of observable inputs and minimize the use of unobservable inputs. The standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used 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.

In using this fair value hierarchy and the framework established by SFAS No. 157, 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, we cannot guarantee that our reserves will continue to be adequate.

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 cycle and development plans, product expiration and quality issues, historical experience and our current inventory levels. 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. Based on the information available at the balance sheet dates and through consultation with our legal counsel, we assess the likelihood of any adverse judgments or outcomes of these matters, as well as the potential ranges of probable losses. If losses are probable and reasonably estimable, we will record a liability and an expense for the estimated loss.

Goodwill and Intangible Asset Valuation

We make significant judgments in relation to the valuation of goodwill and intangible assets resulting from acquisitions and litigation settlements.

In determining the carrying amounts of our goodwill and intangible assets arising from acquisitions, we use the purchase method of accounting. The purchase method of accounting requires extensive use of accounting estimates and judgments to allocate the purchase price to the fair value of the net tangible and intangible assets acquired, including IPR&D. Goodwill and intangible assets deemed to have indefinite lives are not amortized, but are subject to at least annual impairment tests. The amounts and useful lives assigned to other acquired intangible assets impact future amortization, and the amount assigned to IPR&D is expensed immediately.

Determining the fair values and useful lives of intangible assets acquired as part of litigation settlements also requires the exercise of judgment. While there are a number of different generally accepted valuation methods to estimate the value of intangible assets, one method used by management is the discounted cash flow method. This method requires significant management judgment to forecast the future operating results used in this type of analysis. In addition, other significant estimates are required such as 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. These judgments can significantly affect our net operating results. Our judgments can also change with respect to the estimated life of intangible assets which could increase or decrease related amortization expense.

SFAS No. 142, *Goodwill and Other Intangible Assets,* requires that goodwill and certain intangible assets be assessed for impairment using fair value measurement techniques. If the carrying amount of a reporting unit exceeds its fair value, then a goodwill impairment test is performed to measure the amount of the impairment loss, if any. The goodwill impairment test compares the implied fair value of the reporting unit's goodwill with the carrying amount of that goodwill. The implied fair value of goodwill is determined in the same manner as in a business combination. Determining the fair value of the implied goodwill is judgmental in nature and often involves the use of significant estimates and assumptions. These estimates and assumptions could have a significant impact on whether or not an impairment charge is recognized and also the magnitude of any such charge. Estimates of fair value are primarily determined using discounted cash flows and market comparisons. These approaches use significant estimates and assumptions, including projection and timing of future cash flows, discount rates reflecting the risk inherent in future cash flows, perpetual growth rates, determination of appropriate market comparables, and determination of whether a premium or discount should be applied to comparables. It is reasonably possible that the plans and estimates used to value these assets may be incorrect. If our actual results, or the plans and estimates used in future impairment analyses, are lower than the original estimates used to assess the recoverability of these assets, we could incur additional impairment charges. We have performed our annual test of goodwill as of May 30, 2008 noting no impairment. No indicators have arisen since management's assessment on May 30, 2008 that would require further assessment.

Impairment of Long-Lived Assets

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets,* if indicators of impairment exist, we assess the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, we measure the future discounted cash flows associated with the use of the asset and adjust the value of the asset accordingly. Certain estimates and assumptions are used in determining the fair value of long-lived assets. These estimates and assumptions are judgmental in nature and could have a significant impact on the determination of the recognition of an impairment charge and the magnitude of any such change. If our actual results, or the plans and estimates used in future impairment analyses, are lower than the original estimates used to assess the recoverability of these assets, we could incur additional impairment charges.

Stock-Based Compensation

We account for stock-based compensation in accordance with SFAS No. 123R, *Share-Based Payment.* Under the provisions of SFAS No. 123R, stock-based compensation cost is estimated at the grant date based on the award's fair-value as calculated by the Black-Scholes-Merton (BSM) option-pricing model and is recognized as expense over the requisite service period. The BSM model requires various highly judgmental assumptions including volatility, forfeiture rates, and expected option life. If any of these assumptions used in the BSM model change significantly, stock-based compensation expense may differ materially in the future from that recorded in the current period.

Income Taxes

In accordance with SFAS No. 109, *Accounting for Income Taxes*, the provision for income taxes is computed using the asset and liability method, under which deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities, and for the expected future tax benefit to be derived from tax loss and credit carryforwards. Deferred tax assets and liabilities are determined using the enacted tax rates in effect for the years in which those tax assets are expected to be realized. A valuation allowance is established when it is more likely than not the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis, and includes a review of all available positive and negative evidence. Factors reviewed include projections of pre-tax book income over the foreseeable future, determination of cumulative pre-tax book income after

permanent differences, history of earnings, and reliability of forecasting. As of December 28, 2008, we have maintained a valuation allowance only against certain U.S. and foreign deferred tax assets that we concluded have not met the "more likely than not" threshold required under SFAS No. 109.

Due to the adoption of SFAS No. 123R, we recognize excess tax benefits associated with share-based compensation to stockholders' equity only when realized. When assessing whether excess tax benefits relating to share-based compensation have been realized, we follow the with-and-without approach, excluding any indirect effects of the excess tax deductions. Under this approach, excess tax benefits related to share-based compensation are not deemed to be realized until after the utilization of all other tax benefits available to us.

Effective January 1, 2007, we adopted FASB Interpretation (FIN) No. 48, *Accounting for Uncertainty in Income Taxes — an interpretation of FASB Statement No. 109*, which clarifies the accounting for uncertainty in tax positions. FIN No. 48 requires that 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. Any interest and penalties related to uncertain tax positions will be reflected in income tax expense.

Results of Operations

To enhance comparability, the following table sets forth audited consolidated statement of operations data for the years ended December 28, 2008, December 30, 2007 and December 31, 2006 stated as a percentage of total revenue.

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
Revenue:			
Product revenue	93%	89%	84%
Service and other revenue	7	11	16
Total revenue	100	100	100
Costs and expenses:			
Cost of product revenue	34	33	28
Cost of service and other revenue	2	3	5
Research and development	17	20	18
Selling, general and administrative	26	27	29
Impairment of manufacturing equipment	1	—	—
Amortization of intangible assets	2	1	—
Acquired in-process research and development	4	83	—
Litigation settlements	—	15	—
Total costs and expenses	86	182	80
Income (loss) from operations	14	(82)	20
Interest income	2	4	3
Interest and other expense, net	—	(1)	—
Income (loss) before income taxes	16	(79)	23
Provision (benefit) for income taxes	7	(3)	1
Net income (loss)	9%	(76)%	22%

Comparison of Years Ended December 28, 2008 and December 30, 2007

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, and September 30. The years ended December 28, 2008 and December 30, 2007 were both 52 weeks.

Revenue

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Product revenue	$532,390	$326,699	63%
Service and other revenue	40,835	40,100	2
Total revenue	$573,225	$366,799	56%

Product revenue consists of revenue from the sale of consumables, instruments, oligos and associated freight charges. The increase in product revenue was driven primarily by sales of our Infinium BeadChips, sequencing systems and sequencing consumables. Consumables and instruments constituted 63% and 35% of product revenue for the year ended December 28, 2008, respectively, compared to 59% and 37% for the year ended December 30, 2007, respectively.

Consumable revenue increased by $140.2 million over prior year. Growth in consumable revenue was primarily attributable to strong demand for our Infinium and sequencing products, which led to increased sales of $104.8 million and $35.4 million, respectively. The increase in revenue associated with our Infinium products can be mainly attributed to the strong demand for our Infinium High-Density BeadChips, particularly the Human610-Quad, which we began shipping during the first quarter of 2008. Of the overall increase in Infinium BeadChip sales, approximately 79% is due to new product introductions with higher average selling prices, while the remaining 21% can be attributed to increased volume. The increase in sequencing consumables is primarily attributable to the growth in our installed base of instruments and the progression of customer labs ramping to production scale.

Instrument revenue increased by $64.8 million over prior year, of which $63.0 million was due to increased sales of our sequencing systems. This increase in revenue can be primarily attributed to shipments of our second generation Genome Analyzer, the Genome Analyzer II (GAII). Additionally, during the second quarter of 2008, we launched the iScan System, our next-generation BeadChip scanner to replace the BeadArray Reader. Any increase in revenue resulting from shipments of this new system was offset by a reduction in sales of our BeadArray Reader as we stopped manufacturing this product upon the launch of our iScan System.

We expect to see continued growth in product revenue, which can be mainly attributed to the anticipated launch of several new products, sales of existing products and the growth of our installed base of instruments.

Service and other revenue includes revenue generated from genotyping and sequencing service contracts, extended warranty contracts, and research revenue. The increase in service and other revenue is primarily due to an increase of $3.1 million in extended warranty sales coupled with an increase of $2.0 million in sequencing service contracts. This increase was substantially offset by a decline of $4.7 million in our Fast Track genotyping service contracts as we shift more towards CSPro certified customers. CSPro is a collaborative program through which we certify third party service partners using our products to ensure delivery of performance and data quality equivalent to that available from our internal service offering. The decline in service revenue as a result of the shift to CSPro certified customers has been offset by the resulting increase in our consumable sales to these third party service providers. If product sales increase, we expect to see continued increases in the sale of our extended warranty contracts. We also expect sales from SNP genotyping and sequencing service contracts to fluctuate on a yearly and quarterly basis, depending on the mix, the number of contracts completed and the success of our certified service providers. The timing of

completion of SNP genotyping and sequencing service contracts is highly dependent on the customers' schedules for delivering the SNPs and samples to us.

Cost of Product and Service and Other Revenue

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Cost of product revenue	$192,868	$119,991	61%
Cost of service and other revenue	12,756	12,445	2
Total cost of product and service and other revenue	$205,624	$132,436	55%

Cost of revenue, which excludes impairment of manufacturing equipment and amortization of intangible assets, represents manufacturing costs incurred in the production process, including component materials, assembly labor and overhead, installation, warranty, packaging and delivery costs, as well as costs associated with performing genotyping and sequencing services on behalf of our customers.

The increase in cost of product revenue was primarily driven by higher instrument and consumable sales. Cost of product revenue as a percentage of related revenue was 36% for the year ended December 28, 2008 compared to 37% for the year ended December 30, 2007. The decrease is primarily due to favorable product mix driven by increased sales of our new High-Density Infinium Beadchips, with higher average selling prices as compared to the Infinium Beadchips sold in the prior year. This was partially offset by increased provisions for inventory obsolescence of $7.2 million for the year ended December 28, 2008 compared to $1.9 million for the year ended December 30, 2007. The increase in the inventory reserve is primarily associated with product transitions. During the year, we recorded reserves for product obsolescence associated with the launch of our new Infinium Beadchips and the launch of a new sequencing kit. Instrument cost of sales as a percentage of related revenue increased slightly over the prior year due to lower average selling prices mainly associated with promotional campaigns as we launched our next generation Beadarray Reader, the iScan in the first half of 2008.

Cost of service and other revenue increased over the prior year primarily due to higher extended warranty contract revenue. Cost of service and other revenue as a percentage of related revenue stayed consistent at 31%.

Research and Development Expenses

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Research and development	$99,963	$73,943	35%

Our research and development expenses consist primarily of salaries and other personnel-related expenses, laboratory supplies and other expenses related to the design, development, testing and enhancement of our products. We expense our research and development expenses as they are incurred.

Research and development expenses as a percentage of revenue decreased to 17% for the year ended December 28, 2008 compared to 20% for the year ended December 30, 2007. However, there was an overall increase in research and development expenditures compared to the prior year. Costs to support our BeadArray technology research activities increased $10.4 million for the year ended December 28, 2008 compared to the year ended December 30, 2007, primarily due to an overall increase in personnel-related expenses, increased lab and material expenses associated with the establishment of our manufacturing facility in Singapore and the development of new products. The continued development of our Sequencing technology resulted in increased research and development expenditures of $9.1 million for the year ended December 28, 2008 compared to the year ended December 30, 2007. In addition, non-cash stock-based compensation expense increased by $4.1 million compared to the year ended December 30, 2007. Accrued compensation expense of $1.5 million

associated with contingent consideration for the Avantome acquisition completed on August 1, 2008 and expenses related to the development of our newly created Diagnostics Business Unit of $0.9 million also contributed to the increase in research and development expense for the year ended December 28, 2008.

We believe a substantial investment in research and development is essential to remaining competitive and expanding into additional markets. Accordingly, we expect our research and development expenses to increase in absolute dollars as we expand our product base.

Selling, General and Administrative Expenses

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Selling, general and administrative	$148,014	$101,256	46%

Our selling, general and administrative expenses consist primarily of personnel costs for sales and marketing, finance, human resources, business development, legal and general management, as well as professional fees, such as expenses for legal and accounting services. Selling, general and administrative expenses as a percentage of revenue were 26% for the year ended December 28, 2008 compared to 28% for the year ended December 30, 2007. Selling, general and administrative expenses for the year ended December 28, 2008 and December 30, 2007 included stock-based compensation expenses totaling $28.5 million and $19.4 million, respectively.

Sales and marketing expenses increased $34.1 million for the year ended December 28, 2008 compared to the year ended December 30, 2007. The increase is primarily due to increases of $29.3 million attributable to personnel-related expenses, including salaries, benefits and commissions, to support the growth of our business. Included as part of these personnel- related expenses is an increase in employee travel expenses of $4.5 million due to increased headcount and continued international expansion. The remaining $4.8 million variance is comprised of increases to non-personnel-related costs of $2.9 million, consisting mainly of sales and marketing activities for our existing and new products and an increase of $1.9 million of non-cash stock-based compensation expense.

General and administrative expense increased $12.7 million during the year ended December 28, 2008 compared to the year ended December 30, 2007 due to increases of $10.4 million in personnel-related expenses associated with the growth of our business, $7.2 million of non-cash stock-based compensation expense and $0.9 million in outside consulting services offset by a decrease of $5.8 million in legal costs primarily related to the settlement of the Affymetrix litigation during the first quarter of 2008.

We expect our selling, general and administrative expenses to increase in absolute dollars as we expand our staff, add sales and marketing infrastructure and incur additional costs to support the expected growth in our business.

Impairment of Manufacturing Equipment

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Impairment of manufacturing equipment	$4,069	$—	N/A

The impairment of manufacturing equipment resulted from our assessment of recoverability on a portion of our imaging and decoding systems that were no longer being utilized due to the development of our next-generation system and our transition to the Infinium HD product line.

Amortization of Intangible Assets

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Amortization of intangible assets	$10,438	$2,429	330%

Amortization of intangible assets as a percentage of revenue was 2% and 1%, respectively, for the year ended December 28, 2008 and year ended December 30, 2007. The increase in amortization expense is primarily due to the settlement of our lawsuit with Affymetrix on January 9, 2008, resulting in the recording of an intangible asset of $36.0 million. See Note 5 of Notes to Consolidated Financial Statements for further information regarding this settlement.

We began amortizing this asset during the first quarter of 2008, causing an increase in amortization of intangible assets of $7.8 million for the year ended December 28, 2008. The additional increase of $0.2 million during the year ended December 28, 2008 as compared to the year ended December 30, 2007 represents an additional month of amortization associated with the assets acquired from Solexa that we began amortizing in February 2007.

Acquired In-Process Research and Development

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Acquired in-process research and development	$24,660	$303,400	(92%)

As a result of the Avantome acquisition in August 2008 and the Solexa acquisition in January 2007, we recorded acquired IPR&D charges of $24.7 million and $303.4 million, respectively. See Note 2 of Notes to Consolidated Financial Statements for further information regarding these acquisitions.

Litigation Settlements

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Litigation settlements	$—	$54,536	(100%)

During the year ended December 30, 2007, we recorded a charge of $54.5 million associated with two settlement agreements. The total charge is comprised primarily of $54.0 million related to a $90.0 million settlement with Affymetrix entered into on January 9, 2008 for certain patent litigation between the parties. See Note 5 of Notes to Consolidated Financial Statements for further information regarding the Affymetrix settlement.

Interest Income

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Interest income	$12,519	$16,026	(22%)

Interest income on our cash and cash equivalents and investments decreased $3.5 million during the year ended December 28, 2008 compared to the year ended December 30, 2007. The decrease was primarily driven by the overall decline in interest rates due to current market conditions coupled with a change in our cash and investment portfolio to a mix of shorter duration maturities and an increased number of agency-rated investments.

Interest and Other Expense, Net

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Interest and other expense, net	$(2,070)	$(3,610)	(43%)

Interest and other expense, net, consists of interest expense and other income and expenses primarily related to net foreign currency exchange transaction gains and losses. Interest and other expense, net, increased $1.5 million for the year ended December 28, 2008 compared to the year ended December 30, 2007.

Interest expense related to our convertible debt issued in February 2007 was $4.0 million and $3.6 million, respectively, for the year ended December 28, 2008 and the year ended December 30, 2007. The increase represents an additional month and a half of interest expense recorded in the year ended December 28, 2008 compared to the year ended December 30, 2007.

In addition, we recorded $1.9 million in net foreign currency transaction gains for the year ended December 28, 2008 compared to immaterial losses recorded in the year ended December 30, 2007. The gains resulting from our net foreign currency transactions for the year ended December 28, 2008 are due to fluctuations in foreign currency exchange rates coupled with a change in our foreign entity functional currency designation from the local currency to the U.S. dollar beginning the third quarter of 2008. As a result of this change, in the third quarter we began re-measuring our foreign subsidiaries' nonmonetary assets and liabilities and related income and expense accounts to the U.S. dollar and recording the resulting net gain as income. Previously, under local functional currency designation, the effects of translation were recorded within stockholders' equity as other comprehensive income (loss).

Provision (benefit) for Income Taxes

	Year Ended December 28, 2008	Year Ended December 30, 2007	Percentage Change
	(In thousands)		
Provision (benefit) for income taxes	$40,429	$(10,426)	(488%)

The provision consists of federal, state and foreign income tax expense for the years ended December 28, 2008 and December 30, 2007, respectively. In addition for the year ended December 30, 2007, the provision was reduced by $17.1 million as a result of the release of the valuation allowance against a significant portion of our U.S. deferred tax assets.

As of December 28, 2008, we had net operating loss carryforwards for federal and state tax purposes of $87.7 million and $148.3 million, respectively, which begin to expire in 2025 and 2013, respectively, unless previously utilized. In addition, we also had U.S. federal and state research and development tax credit carryforwards of $12.6 million and $13.9 million, respectively, which begin to expire in 2018 and 2019, respectively, unless previously utilized.

Pursuant to Section 382 and 383 of the Internal Revenue Code, utilization of our net operating losses and credits may be subject to annual limitations in the event of any significant future changes in our ownership structure. These annual limitations may result in the expiration of net operating losses and credits prior to utilization. Previous limitations due to Section 382 and 383 have been reflected in the deferred tax assets as of December 28, 2008.

Based on the available evidence as of December 28, 2008, we were not able to conclude it was more likely than not certain U.S. and foreign deferred tax assets will be realized. Therefore, we have recorded a valuation allowance of $2.8 million and $12.4 million against certain U.S. and foreign deferred tax assets, respectively. At December 30, 2007, we concluded that it was more likely than not that a significant portion of our deferred tax assets will be realized and, accordingly, we released a portion of our valuation allowance, $17.1 million, of which was recorded as a reduction to the tax provision.

As of December 28, 2008, no material changes have been made to our uncertain tax positions recorded in accordance with FIN No. 48, *Accounting for Uncertainty in Income Taxes — an Interpretation of FASB Statement No. 109*.

Comparison of Years Ended December 30, 2007 and December 31, 2006

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, and September 30. The years ended December 30, 2007 and December 31, 2006 were both 52 weeks.

Revenue

	Year Ended December 30, 2007	Year Ended December 31, 2006	Percentage Change
	(In thousands)		
Product revenue	$326,699	$155,811	110%
Service and other revenue	40,100	28,775	39
Total revenue	$366,799	$184,586	99%

Product revenue consists of revenue from the sale of consumables, instruments, oligos and associated freight charges. Consumables and instruments constituted 59% and 37% of product revenue for the year ended December 30, 2007, respectively, compared to 64% and 28% for the year ended December 31, 2006, respectively. The change in sales associated with our product mix is due to increased sales in instruments primarily attributable to the Genome Analyzer, which was introduced during the first quarter of 2007. Growth in consumable revenue was primarily attributable to strong demand for our Infinium products.

Consumable revenue increased by $93.6 million over prior year, of which $81.1 million primarily represents increased sales volume of our Infinium products. The increase in revenue associated with our Infinium products can be mainly attributed to our HumanHap family of BeadChips, the Human 1M DNA Analysis BeadChip and our iSelect Infinium BeadChips for more focused content applications. Of the overall increase in Infinium BeadChip sales, approximately 82% is due to a higher volume of shipments, while the remaining 18% can be attributed to new product introductions and slightly higher average selling prices.

Instrument revenue increased by $77.6 million over prior year, of which $68.7 million was due to increased sales of our sequencing systems, particularly the Genome Analyzer and cluster stations.

Service and other revenue includes revenue generated from genotyping and sequencing service contracts, extended warranty contracts and research revenue. Service and other revenue increased $11.3 million over prior year primarily due to the completion of several significant Infinium and iSelect custom SNP genotyping service contracts and sequencing services contracts. This increase in services represented $9.9 million of the variance, while the remainder of the difference was generated by an increase in extended warranty contracts of $2.2 million offset by a decrease in grant revenue of $0.8 million. We expect sales from SNP genotyping and sequencing services contracts to fluctuate on a yearly and quarterly basis, depending on the mix and number of contracts that are completed. The timing of completion of SNP genotyping and sequencing services contracts are highly dependent on the customers' schedules for delivering the SNPs and samples to us.

Cost of Product and Service and Other Revenue

	Year Ended December 30, 2007	Year Ended December 30, 2006	Percentage Change
	(In thousands)		
Cost of product revenue	$119,991	$51,271	134%
Cost of service and other revenue	12,445	8,073	54
Total cost of product and service and other revenue	$132,436	$59,344	123%

Cost of revenue, which excludes amortization of intangible assets, represents manufacturing costs incurred in the production process, including component materials, assembly labor and overhead, installation, warranty, packaging and delivery costs, as well as costs associated with performing genotyping and sequencing services on behalf of our customers.

The increase in cost of product revenue was primarily driven by higher instrument and consumable sales. Cost of product revenue as a percentage of related revenue was 37% for the year ended December 30, 2007 compared to 33% for the year ended December 31, 2006. The increase is primarily due to the shift in product mix towards instruments mainly attributable to sales of our sequencing systems, which were introduced during the first quarter of 2007. In addition, cost of product revenue as a percentage of related revenue was adversely impacted by the increase in non-cash stock-based compensation expense as well as $0.7 million associated with the amortization of inventory revaluation costs related to our acquisition of Solexa in January 2007. Non-cash stock-based compensation expense was $4.0 million and $1.3 million for the periods ended December 30, 2007 and December 31, 2006, respectively.

Cost of service revenue increased over the prior year primarily due to higher sequencing and genotyping services revenue. Cost of service revenue as a percentage of related revenue was 31% for the year ended December 30, 2007 compared to 28% for the year ended December 31, 2006. The increase in cost of service revenue as a percentage of related revenue was primarily related to unfavorable product mix driven by higher sales of our sequencing services, which were introduced during 2007.

Research and Development Expenses

	Year Ended December 30, 2007	Year Ended December 31, 2006	Percentage Change
	(In thousands)		
Research and development	$73,943	$33,373	122%

Our research and development expenses consist primarily of salaries and other personnel-related expenses, laboratory supplies and other expenses related to the design, development, testing and enhancement of our products. We expense our research and development expenses as they are incurred.

Research and development expenses increased to $73.9 million for the year ended December 30, 2007 compared to $33.4 million for the year ended December 31, 2006. Research and development expenses as a percentage of total revenue were 20% for the year ended December 30, 2007 compared to 18% for the year ended December 31, 2006. Of the increase for the year ended December 30, 2007, $27.0 million was due to higher research and development expenses associated with our acquisition of Solexa in January 2007. Costs to support our BeadArray technology research activities increased $8.5 million for the year ended December 30, 2007 compared to the year ended December 31, 2006, primarily due to an overall increase in personnel-related expenses and increased lab and material expenses. Several new Infinium chip products, including the Human 1M DNA Analysis BeadChip, HumanCNV370-Duo BeadChip and HumanHap550-Duo BeadChip, have been introduced to the market in 2007. In addition, non-cash stock-based compensation expense increased $6.1 million compared to the year ended December 31, 2006. These increases were partially offset by a $1.0 million decrease in research and development expenses related to the VeraCode technology compared to the year ended December 31, 2006. We began shipping our BeadXpress System, which is based on our VeraCode technology, during the first quarter of 2007. As a result of completing the development of this product, the related research and development expenses have decreased.

Selling, General and Administrative Expenses

	Year Ended December 30, 2007	Year Ended December 31, 2006	Percentage Change
	(In thousands)		
Selling, general and administrative	$101,256	$54,057	87%

Our selling, general and administrative expenses consist primarily of personnel costs for sales and marketing, finance, human resources, business development, legal and general management, as well as professional fees, such as expenses for legal and accounting services. Selling, general and administrative expenses increased to $101.3 million for the year ended December 30, 2007 compared to $54.1 million for the year December 31, 2006.

Sales and marketing expense increased $24.5 million during the year ended December 30, 2007 compared to the year ended December 31, 2006. The increase is primarily due to increases of $18.6 million attributable to personnel-related expenses to support the growth of our business, $3.3 million of non-cash stock-based compensation expense and $2.6 million attributable to other non-personnel-related expenses consisting mainly of sales and marketing activities for our existing and new products.

General and administrative expense increased $22.7 million during the year ended December 30, 2007 compared to the year ended December 30, 2006 due to increases of $8.7 million in personnel-related expenses associated with the growth of our business, $7.2 million of non-cash stock-based compensation expense, $3.4 million in outside legal fees and $3.3 million in other outside service expenses, primarily due to increases in consulting fees and increased tax, audit, and other public company costs.

Amortization of Intangible Assets

	Year Ended December 30, 2007	Year Ended December 31, 2006	Percentage Change
	(In thousands)		
Amortization of intangible assets	$2,429	$—	N/A

Amortization of intangible assets totaled $2.4 million for the year ended December 30, 2007. There was no amortization of acquired intangibles for the year ended December 31, 2006. The amount amortized in 2007 represents the amortization of our intangible assets acquired from Solexa in January 2007.

Acquired In-Process Research and Development

	Year Ended December 30, 2007	Year Ended December 30, 2006	Percentage Change
	(In thousands)		
Acquired in-process research and development	$303,400	$—	N/A

During the year ended December 30, 2007, we recorded $303.4 million of acquired IPR&D resulting from the Solexa acquisition. At the acquisition date, Solexa's ongoing research and development initiatives were primarily involved with the development of its genetic analysis platform for sequencing and expression profiling. These in-process research and development projects are comprised of Solexa's reversible terminating nucleotide biochemistry platform, referred to as sequencing-by-synthesis (SBS) biochemistry, as well as Solexa's reagent, analyzer and sequencing services related technologies, which were valued at $237.2 million, $44.2 million, $19.1 million and $2.9 million, respectively, at the acquisition date. Although these projects were approximately 95% complete at the acquisition date, they had not reached technological feasibility and had no alternative future use. Accordingly, the amounts allocated to those projects were written off in the first quarter of 2007, the period the acquisition was consummated. Acquisitions of businesses, products or technologies by us in the future may result in substantial charges for acquired IPR&D that may cause fluctuations in our interim or annual operating results. There were no charges resulting from any acquisitions during the same period in fiscal 2006.

Litigation Settlements

	Year Ended December 30, 2007	Year Ended December 31, 2006	Percentage Change
	(In thousands)		
Litigation settlements	$54,536	$—	N/A

During the year ended December 30, 2007, we recorded a charge of $54.5 million associated with two settlement agreements entered into subsequent to year-end. The total charge is comprised primarily of $54.0 million related to a $90.0 million settlement with Affymetrix entered into on January 9, 2008 for certain patent litigation between the parties. See Note 5 of Notes to Consolidated Financial Statements for further information regarding this settlement.

Interest Income

	Year Ended December 30, 2007	Year Ended December 31, 2006	Percentage Change
	(In thousands)		
Interest income	$16,026	$5,368	199%

Interest income on our cash and cash equivalents and investments was $16.0 million and $5.4 million for the years ended December 30, 2007 and December 31, 2006, respectively. The increase in interest income over the prior year was primarily driven by higher cash balances from the proceeds of our February 2007 convertible debt offering, cash acquired as part of the Solexa acquisition, and improved operating cash flow. In addition, we experienced higher effective interest rates on our cash equivalents and short-term investments.

Interest and Other Expense, Net

	Year Ended December 30, 2007	Year Ended December 31, 2006	Percentage Change
	(In thousands)		
Interest and other expense, net	$(3,610)	$(560)	545%

Interest and other expense, net, consists of interest expense and other income and expenses related to net foreign currency exchange transaction gains and losses. Interest and other expense, net, increased to $3.6 million for the year ended December 30, 2007, compared to $0.6 million for the year ended December 31, 2006.

Interest expense was $3.6 million for the year ended December 30, 2007, compared to an immaterial amount for the year ended December 31, 2006. The increase is primarily related to our convertible debt offering in February 2007. For the years ended December 30, 2007 and December 31, 2006, we recorded $0.5 million and $0.4 million, respectively, in net foreign currency transaction losses, respectively. In 2007, these foreign currency exchange losses were offset by $0.5 million of foreign currency exchange gains associated with the sale of our secured convertible debentures with Genizon BioSciences, Inc. in the fourth quarter of 2007.

Provision (benefit) for Income Taxes

	Year Ended December 30, 2007	Year Ended December 31, 2006	Percentage Change
	(In thousands)		
Provision (benefit) for income taxes	$(10,426)	$2,652	(493%)

The provision (benefit) for income taxes was ($10.4) million and $2.7 million for the years ended December 30, 2007 and December 31, 2006, respectively. The provision consists of federal, state, and foreign income tax expense offset in 2007 by the release of the valuation allowance against a significant portion of our U.S. deferred tax assets.

During the year ended December 30, 2007, we utilized $72.9 million and $10.8 million of our federal and state net operating loss carryforwards, respectively, to reduce our federal and state income taxes. As of December 30, 2007, we had net operating loss carryforwards for federal and state tax purposes of $28.7 million and $99.1 million, respectively, which begin to expire in 2025 and 2015, respectively, unless previously utilized. In addition, we also had U.S. federal and state research and development tax credit

carryforwards of $9.2 million and $9.3 million respectively, which begin to expire in 2018 and 2019 respectively, unless previously utilized.

Pursuant to Section 382 and 383 of the Internal Revenue Code, utilization of our net operating losses and credits may be subject to annual limitations in the event of any significant future changes in our ownership structure. These annual limitations may result in the expiration of net operating losses and credits prior to utilization. Previous limitations due to Section 382 and 383 have been reflected in the deferred tax assets as of December 30, 2007.

As of December 30, 2007, we concluded that it is more likely than not that a significant portion of our deferred tax assets will be realized and, accordingly we released a portion of our valuation allowance, $17.1 million of which was recorded as a reduction to the tax provision. In addition, we established current and long term deferred tax assets on the consolidated balance sheets of $26.8 million and $80.1 million, respectively, and decreased the goodwill balances recorded in conjunction with the CyVera and Solexa acquisitions by $2.1 million and $18.4 million, respectively. Based upon the available evidence as of December 30, 2007, we are not able to conclude it is more likely than not certain U.S. and foreign deferred tax assets will be realized. Therefore, we have recorded a valuation allowance of $2.9 million and $25.4 million against certain U.S. and foreign deferred tax assets, respectively.

Liquidity and Capital Resources

Cashflow

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
		(In thousands)	
Net cash provided by operating activities	$ 87,882	$ 56,294	$ 39,000
Net cash used in investing activities	(277,249)	(67,686)	(160,735)
Net cash provided by financing activities	337,672	148,292	109,296
Effect of foreign currency translation	3,778	(345)	3
Net increase (decrease) in cash and cash equivalents	$ 152,083	$136,555	$ (12,436)

Historically, our sources of cash have included:

- issuance of equity and debt securities, including cash generated from the issuance of our convertible notes in February 2007, our public offering of common stock in August 2008 and the exercise of stock options and participation in our Employee Stock Purchase Plan (ESPP);
- cash generated from operations; and
- interest income.

Our historical cash outflows have primarily been associated with:

- cash used for operating activities such as the purchase and growth of inventory, expansion of our sales and marketing and research and development infrastructure and other working capital needs;
- cash paid for litigation settlements;
- cash used for our stock repurchases;
- expenditures related to increasing our manufacturing capacity and improving our manufacturing efficiency;
- cash paid for acquisitions; and
- interest payments on our debt obligations.

Other factors that impact our cash inflow and outflow include:

- significant increases in our product and services revenue. As our product sales have increased significantly since 2001, operating income has increased significantly as well, providing us with an increased source of cash to finance the expansion of our operations; and
- fluctuations in our working capital.

We currently invest our funds in treasury notes, commercial paper, auction rate securities, corporate bonds and U.S. dollar-based short maturity mutual funds. We do not hold securities backed by mortgages.

As of December 28, 2008, we had cash, cash equivalents and investments of $696.0 million compared to $386.1 million as of December 30, 2007. Included in the investment balance as of December 28, 2008 were auction rate securities of $55.9 million issued primarily by municipalities and universities. The markets for auction rate securities effectively ceased when the vast majority of auctions failed in February 2008, preventing investors from selling their auction rate securities. As of December 28, 2008, the securities continued to fail auction and remained illiquid. As a result, we have recorded an unrealized loss of $8.7 million for the year ended December 28, 2008, resulting in a reduction to the fair value of our auction rate securities to $47.2 million as of December 28, 2008. This value was determined in accordance with SFAS No. 157. We used Level 3 hierarchical inputs, due to the lack of actively traded market data, including management's assumptions of pricing by market participants and assumptions about risk. We based our fair value determination on estimated discounted future cash flows of interest income over a projected period reflective of the length of time we anticipate it will take the securities to become liquid. Additionally, we classified these securities as long-term investments as of December 28, 2008 as we believe we may not be able to liquidate our investments within the next year. As of December 30, 2007, these securities were classified as short-term as the failures of these auctions did not occur until February 2008.

In November 2008, we signed a settlement agreement allowing us to sell our auction rate securities at par value to UBS at our discretion during the period of June 30, 2010 through July 2, 2012. To account for this settlement agreement, we recorded a put option of $8.7 million and recognized a corresponding gain in earnings during the fourth quarter of 2008. The fair value of the put option was determined using a discounted cash flow approach including estimates of interest rates, timing and amount of cash flow, with consideration given to UBS's financial ability to repurchase the auction rate securities beginning June 30, 2010. The fair value of the put option approximates the difference between the par value and fair value of the auction rate securities. The auction rate securities were previously classified as available-for-sale, and unrealized gains and losses were recognized in other comprehensive income. By signing the settlement agreement, we no longer have the intent of holding the auction rate securities until recovery as we will now recover any unrealized loss through the settlement agreement. Accordingly, we elected a one-time transfer of the auction rate securities from available-for-sale to trading and reclassified previously recorded unrealized losses from other comprehensive income to earnings. We will continue to recognize gains and losses in earnings approximately equal to changes in the fair value of the auction rate securities at each balance sheet date. These gains and losses will likely be offset by changes in the fair value of the put option as we elect the fair value option subject to our assessment of the counterparties ability to perform. See Part I Item 1A: "Risk Factors — Negative conditions in the global credit markets may impair the liquidity of a portion of our investment portfolio."

The primary inflow of cash during the year ended December 28, 2008 was from the sale of 8,050,000 shares of our common stock to the public in August 2008 at a public offering price of $43.75 per share, raising net proceeds to us of $342.6 million, after deducting underwriting discounts and commissions and offering expenses. Additional cash inflows during this year resulted from the sale and maturity of our investments in available-for-sale securities of $411.8 million and $44.3 million from the exercise of our stock options.

The primary cash outflows during the year ended December 28, 2008 were attributable to the purchase of available-for-sale securities for $568.7 million, the one-time payment of $90.0 million made to Affymetrix in accordance with the settlement agreement, the repurchase of an aggregate of 3.1 million shares of our

common stock for $70.8 million and $59.7 million in capital expenditures primarily for construction-in-progress associated with the expansion of our San Diego facilities, additions to manufacturing equipment as well as the development of our manufacturing facility in Singapore. Additionally, on August 1, 2008, we completed our acquisition of Avantome, Inc. As consideration for the acquisition, we paid $25.8 million in cash, including transaction costs, and may pay up to an additional $35.0 million in contingent cash consideration based on the achievement of certain milestones.

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

- our facilities expansion needs, including costs of leasing additional facilities;
- the acquisition of equipment and other fixed assets for use in our current and future manufacturing and research and development facilities;
- 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;
- potential strategic acquisitions and investments;
- the continued advancement of research and development efforts; and
- improvements in our manufacturing capacity and efficiency.

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.

Our outstanding convertible notes became convertible into cash and, if applicable, shares of our common stock as of April 1, 2008. The notes continued to be convertible through December 31, 2008. Subsequent to year end, on December 29, 2008, a noteholder converted notes in an aggregate principal amount of $10.0 million. Generally, upon conversion of a note, we must pay the conversion value of the note in cash, up to the principal amount of the note. Any excess of the conversion value over the principal amount is payable in shares of our common stock. To reduce the potential equity dilution upon conversion of the notes, we entered into a hedge transaction. See Note 8 of Notes to Consolidated Financial Statements for further discussion of the terms of the Convertible Senior Notes. Beginning January 1, 2009 the notes ceased to be convertible since the trigger for convertibility was not met during the last calendar quarter of 2008. Fluctuations in our stock price could cause the conversion feature to trigger in future quarters, resulting in an impact on our working capital.

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 twelve months, barring unforeseen circumstances. Operating needs 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 other than development of our additional facility in Little Chesterford, United Kingdom. The development of this facility is estimated to cost $14.5 million during 2009 although actual costs may vary significantly from our current estimate. Our future capital requirements and the adequacy of our available funds will depend on many factors, including:

- our ability to successfully evolve our sequencing and Veracode technologies and to expand our sequencing and SNP genotyping product lines;
- 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.

As a result of the factors listed above, we may require additional funding in the future. Our failure to raise capital on acceptable terms, when needed, could have a material adverse effect on our business.

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 (SPEs), 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 December 28, 2008, we were not involved in any "off balance sheet arrangements" within the meaning of the rules of the Securities and Exchange Commission.

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 December 28, 2008, aggregated by type (amounts in thousands):

	Payments Due by Period (1),(2)				
Contractual Obligation	**Total**	**Less Than 1 Year**	**1 – 3 Years**	**3 – 5 Years**	**More Than 5 Years**
Long-term debt obligations(3)	$413,750	$ 2,500	$ 5,000	$ 5,000	$401,250
Operating leases	158,240	11,032	22,945	23,378	100,885
Amounts due under executive deferred compensation plan	1,348	—	—	—	—
Total	$573,338	$13,532	$27,945	$28,378	$502,135

(1) Excludes $35.0 million of contingent cash consideration we may be required to pay pursuant to our purchase agreement with Avantome based on the achievement of certain milestones. We have not included this amount in the table above because the commitment does not have a fixed funding date and is subject to certain conditions. See Note 2 of Notes to the Consolidated Financial Statements for further discussion of our acquisition of Avantome.

(2) Excludes $23.8 million of uncertain tax benefits under FIN 48. We have not included this amount in the table above because we cannot make a reasonably reliable estimate regarding the timing of settlements with taxing authorities, if any. See Note 12 of Notes to the Consolidated Financial Statements for further discussion of our uncertain tax positions.

(3) The "long-term debt obligations" in the above table include the principal amount of our Convertible Senior Notes and interest payments totaling 0.625% per annum. See Note 8 of Notes to Consolidated Financial Statements for further discussion of the terms of the Convertible Senior Notes.

Recent Accounting Pronouncements

Information with respect to recent accounting pronouncements is included in Note 1 of Notes to Consolidated Financial Statements.

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

Interest Rate Sensitivity

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. 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 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. For example, if a 100 basis point change in overall interest rates were to occur in 2009, our interest income would change by approximately $6.4 million in relation to amounts we would expect to earn, based on our cash, cash equivalents, and short-term investments as of December 28, 2008.

Market Price Sensitive Instruments

In order to potentially reduce equity dilution, 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 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 have operations in the Americas, Europe and Asia-Pacific. As a result, our financial position, results of operations and cash flows can be affected by fluctuations in foreign currency exchange rates. The functional currency for each of our subsidiaries is the U.S. dollar. Accordingly, we remeasure the monetary assets and liabilities of our foreign subsidiaries to the U.S. dollar at month-end exchange rates and remeasure the nonmonetary assets and liabilities to the U.S. dollar at historical rates. Income and expense amounts related to monetary assets and liabilities are remeasured to the U.S. dollar at the weighted average exchange rates in effect during the relevant period, and income and expense accounts related to nonmonetary assets and liabilities are remeasured to the U.S. dollar at historical exchange rates. Remeasurement gains and losses are recognized as income, or expense, in the period of occurrence.

In addition, many of our reporting entities conduct a portion of their business in currencies other than the entity's U.S. functional currency. These transactions give rise to receivables and payables that are denominated in currencies other than the entity's functional currency. The value of these receivables and payables is subject to changes in exchange rates because they may become worth more or less than they were worth at the time we entered into the transaction due to changes in exchange rates. Both realized and unrealized gains or losses on the value of these receivables and payables are included in the determination of net income. The net currency exchange gain recognized on business transactions was $1.9 million for the year ended December 28, 2008 and is included in other income and expense in the consolidated statements of operations.

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

The Report of Independent Registered Public Accounting Firm, Financial Statements and Notes to Financial Statements begin on page F-1 immediately following the signature page and are incorporated herein by reference.

Item 9. ***Changes In and Disagreements with Accountants on Accounting and Financial Disclosure.***

None.

Item 9A. ***Controls and Procedures.***

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

We have carried out an evaluation, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and

operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Securities Exchange Act), as of December 28, 2008. Based upon that evaluation, our principal executive officer and principal financial officer concluded that, as of December 28, 2008, our disclosure controls and procedures were effective to ensure that (a) the information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (b) such information is accumulated and communicated to our management, including our principal executive officer and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management have concluded that the disclosure controls and procedures are effective at the reasonable assurance level. Because of inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected.

An evaluation was also performed under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, of any change in our internal control over financial reporting that occurred during the fourth quarter of 2008 and that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. The evaluation did not identify any such change.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

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

We conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in Internal Control — Integrated Framework, our management concluded that our internal control over financial reporting was effective as of December 28, 2008. The effectiveness of our internal control over financial reporting as of December 28, 2008 has been audited by Ernst & Young LLP, an independent registered accounting firm, as stated in their report which is included herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of
Illumina, Inc.

We have audited Illumina, Inc.'s internal control over financial reporting as of December 28, 2008, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Illumina, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, Illumina, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 28, 2008, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the accompanying consolidated balance sheets of Illumina, Inc. as of December 28, 2008 and December 30, 2007, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 28, 2008 of Illumina, Inc. and our report dated February 24, 2009 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
February 24, 2009

Item 9B. ***Other Information.***

None.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance.***

(a) Identification of Directors. Information concerning our directors is incorporated by reference from the section entitled "Proposal One: Election of Directors" to be contained in our definitive Proxy Statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC no later than April 27, 2009.

(b) Identification of Executive Officers. Information concerning our executive officers is set forth under "Executive Officers" in Part I of this Annual Report on Form 10-K and is incorporated herein by reference.

(c) Compliance with Section 16(a) of the Exchange Act. Information concerning compliance with Section 16(a) of the Securities Exchange Act of 1934 is incorporated by reference from the section entitled "Compliance with Section 16(a) of the Securities Exchange Act" to be contained in our definitive Proxy Statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC no later than April 27, 2009.

(d) Information concerning the audit committee financial expert as defined by the SEC rules adopted pursuant to the Sarbanes-Oxley Act of 2002 is incorporated by reference from our definitive Proxy Statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC no later than April 27, 2009.

Code of Ethics

We have adopted a code of ethics for our directors, officers and employees, which is available on our website at www.illumina.com in the Investor Information section under "Corporate." The information on, or that can be accessed from, our website is not incorporated by reference into this report.

Item 11. ***Executive Compensation.***

Information concerning executive compensation is incorporated by reference from the sections entitled "Executive Compensation and Other Information" to be contained in our definitive Proxy Statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC no later than April 27, 2009.

Item 12. ***Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.***

Information concerning the security ownership of certain beneficial owners and management and information covering securities authorized for issuance under equity compensation plans is incorporated by reference from the sections entitled "Ownership of Securities" and "Equity Compensation Plan Information" to be contained in our definitive Proxy Statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC no later than April 27, 2009.

Item 13. ***Certain Relationships and Related Transactions, and Director Independence.***

Information concerning certain relationships and related transactions, and director independence is incorporated by reference from the sections entitled "Proposal One: Election of Directors," "Executive Compensation and Other Information" and "Certain Transactions" to be contained in our definitive Proxy Statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC no later than April 27, 2009.

Item 14. ***Principal Accountant Fees and Services.***

Information concerning principal accountant fees and services is incorporated by reference from the sections entitled "Proposal Two: Ratification of Independent Registered Public Accounting Firm" to be contained in our definitive Proxy Statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC no later than April 27, 2009.

PART IV

Item 15. ***Exhibits, Financial Statement Schedules.***

(a) The following documents are filed as a part of this report:

(1) *Consolidated Financial Statements:*

(3) *Exhibits:*

Exhibit Number	Description of Document
3.1(2)	Amended and Restated Certificate of Incorporation.
3.2	Amended Bylaws.
3.3(5)	Certificate of Designation for Series A Junior Participating Preferred Stock (included as an exhibit to exhibit 4.3).
4.1(1)	Specimen Common Stock Certificate.
4.2(1)	Second Amended and Restated Stockholders Rights Agreement, dated November 5, 1999, by and among the Registrant and certain stockholders of the Registrant.
4.3(5)	Rights Agreement, dated as of May 3, 2001, between the Registrant and Equiserve Trust Company, N.A.
4.4(35)	Indenture related to the 0.625% Convertible Senior Notes due 2014, dated as of February 16, 2007, between the Registrant and the Bank of New York, as trustee.
4.5(36)	Registration Rights Agreement, dated as of February 16, 2007, between the Registrant and the Purchasers named therein.
+10.1(1)	Form of Indemnification Agreement between the Registrant and each of its directors and officers.
+10.2(1)	1998 Incentive Stock Plan.
+10.3(7)	2000 Employee Stock Purchase Plan, as amended and restated through July 20, 2006.
10.4(1)	Sublease Agreement dated August 1998 between Registrant and Gensia Sicor Inc. for the Registrant's principal offices.
10.5(37)	License Agreement dated May 1998 between Tufts and Registrant.
10.6(10)	Master Loan and Security Agreement, dated March 6, 2000, by and between Registrant and FINOVA Capital Corporation.
+10.7(20)	2000 Stock Plan, as amended and restated through March 21, 2002.

Exhibit Number	Description of Document
10.8(12)	Eastgate Pointe Lease, dated July 6, 2000, between Diversified Eastgate Venture and Registrant.
10.9(19)	Option Agreement and Joint Escrow Instructions, dated July 6, 2000, between Diversified Eastgate Venture and Registrant.
10.10(4)	First Amendment to Joint Development Agreement dated March 27, 2001 between Registrant and PE Corporation, now known as Applied Biosystems Group (with certain confidential portions omitted).
10.11(6)	First Amendment to Option Agreement and Escrow Instructions dated May 25, 2001 between Diversified Eastgate Venture and Registrant.
10.12(13)	Second Amendment to Option Agreement and Escrow Instructions dated July 18, 2001 between Diversified Eastgate Venture and Registrant.
10.13(14)	Third Amendment to Option Agreement and Escrow Instructions dated September 27, 2001 between Diversified Eastgate Venture and Registrant.
10.14(15)	First Amendment to Eastgate Pointe Lease dated September 27, 2001 between Diversified Eastgate Venture and Registrant.
10.15(8)	Replacement Reserve Agreement, dated as of January 10, 2002, between the Registrant and BNY Western Trust Company as Trustee for Washington Capital Joint Master Trust Mortgage Income Fund.
10.16(17)	Loan Assumption and Modification Agreement, dated as of January 10, 2002, between the Registrant, Diversified Eastgate Venture and BNY Western Trust Company as Trustee for Washington Capital Joint Master Trust Mortgage Income Fund.
10.17(18)	Tenant Improvement and Leasing Commission Reserve Agreement, dated as of January 10, 2002, between the Registrant and BNY Western Trust Company as Trustee for Washington Capital Joint Master Trust Mortgage Income Fund.
+10.18(42)	Solexa Share Option Plan for Consultants.
+10.19(43)	Solexa Enterprise Management Incentive Plan.
10.20(21)	Non-exclusive License Agreement dated January 2002 between Amersham Biosciences Corp. and Registrant (with certain confidential portions omitted).
10.21(22)	License Agreement dated June 2002 between Dade Behring Marburg GmbH and Registrant (with certain confidential portions omitted).
10.22(23)	Purchase and Sale Agreement and Escrow Instructions dated June 18, 2004 between Bernardo Property Advisors, Inc. and Registrant.
10.23(24)	Single Tenant Lease dated August 18, 2004 between BMR-9885 Towne Centre Drive LLC and Registrant.
10.24(25)	Settlement and Cross License Agreement dated August 18, 2004 between Applera Corporation and Registrant (with certain confidential portions omitted).
10.25	Amended Solexa 2005 Equity Incentive Plan
10.26	Amended Solexa 1992 Stock Option Plan
10.27(41)	Solexa Unapproved Company Share Option Plan
10.28(26)	Collaboration Agreement dated December 17, 2004 between Invitrogen Corporation and Registrant (with certain confidential portions omitted).
10.29(27)	Offer letter for Christian O. Henry dated April 26, 2005.
10.30(28)	Forms of Stock Option Agreement under 2000 Stock Plan.
10.31(29)	Secured Convertible Debenture Indenture between Genizon BioSciences Inc., Computershare Trust Company of Canada and the Registrant, dated March 24, 2006.
10.32(30)	Joint Development and Licensing Agreement dated May 15, 2006 between deCODE genetics, ehf. and Registrant (with certain confidential portions omitted).
10.33	Amended and Restated Change in Control Severance Agreement between the Registrant and Jay T Flatly.
10.34	Form of Change in Control Severance Agreement between the Registrant and its executive officers.
10.35	Form of Restricted Stock Unit Agreement for Non-Employee Directors under 2005 Stock and Incentive Plan.
10.36	[Reserved]
10.37	[Reserved]
10.38	[Reserved]
10.39(34)	Securities Purchase Agreement, dated as of November 12, 2006, between Solexa, Inc. and the Registrant.
10.40(50)	Lease between The Irvine Company LLC and the Registrant, dated September 29, 2006.
10.41(37)	Amended and Restated Lease between BMR-9885 Towne Centre Drive LLC and the Registrant for the 9885 Towne Centre Drive property, dated January 26, 2007.
10.42(37)	Lease between BMR-9885 Towne Centre Drive LLC and the Registrant for the 9865 Towne Centre Drive property, dated January 26, 2007.

Exhibit Number	Description of Document
10.43	Amended and Restated 2005 Stock and Incentive Plan.
10.44(9)	Settlement and Release Agreement between Affymetrix, Inc. and the Registrant, dated January 9, 2008.
10.45(44)	Confirmation of Convertible Bond Hedge Transaction, dated February 12, 2007, by and between the Registrant and Goldman, Sachs & Co.
10.46(45)	Confirmation of Convertible Bond Hedge Transaction, dated February 12, 2007, by and between the Registrant and Deutsche Bank AG London.
10.47(46)	Confirmation Issuer Warrant Transaction, dated February 12, 2007, by and between the Registrant and Goldman, Sachs & Co.
10.48(47)	Confirmation Issuer Warrant Transaction, dated February 12, 2007, by and between the Registrant and Deutsche Bank AG London.
10.49(48)	Amendment to the Confirmation of Issuer Warrant Transaction, dated February 13, 2007, by and between the Registrant and Goldman, Sachs & Co.
10.50(49)	Amendment to the Confirmation of Issuer Warrant Transaction, dated February 13, 2007, by and between the Registrant and Deutsche Bank AG London.
10.51(11)	New Hire Stock and Incentive Plan.
10.52(11)	Executive Transition Agreement between the Registrant and John R. Stuelpnagel, dated March 21, 2008.
10.53	[Reserved]
10.54	[Reserved]
10.55(3)	Indemnification Agreement between the Registrant and Gregory F. Heath.
10.56(3)	Indemnification Agreement between the Registrant and Joel McComb.
14	Code of Ethics.
21.1	Subsidiaries of the Registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
24.1	Power of Attorney (included on the signature page).
31.1	Certification of Jay T. Flatley pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Christian O. Henry pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Jay T. Flatley pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Christian O. Henry pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

+ Management contract or corporate plan or arrangement

(1) Incorporated by reference to the same numbered exhibit filed with our Registration Statement on Form S-1 (File No. 333-33922) filed April 3, 2000, as amended.

(2) Incorporated by reference to exhibit 3.1 filed with our Form 8-K (File No. 000-30361) filed on September 23, 2008.

(3) Incorporated by reference to the same numbered exhibit filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended June 29, 2008 filed July 25, 2008.

(4) Incorporated by reference to exhibit 10.13 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended March 31, 2001 filed May 8, 2001.

(5) Incorporated by reference to the same numbered exhibit filed with our Registration Statement on Form 8-A (File No. 000-30361) filed May 14, 2001.

(6) Incorporated by reference to exhibit 10.15 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended June 30, 2001 filed August 13, 2001.

(7) Incorporated by reference to exhibit 10.3 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended October 1, 2006 filed October 30, 2006.

(8) Incorporated by reference to exhibit 10.18 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended March 31, 2002 filed May 13, 2002.

(9) Incorporated by reference to exhibit 10.44 filed with our Form 10-K (File No. 000-30361) for the fiscal year ended December 30, 2007 filed February 26, 2008.

(10) Incorporated by reference to exhibit 10.9 filed with our Registration Statement on Form S-1/A (File No. 333-33922) filed July 3, 2000.

(11) Incorporated by reference to the same numbered exhibit filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended March 30, 2008 filed April 28, 2008.

(12) Incorporated by reference to exhibit 10.11 filed with our Registration Statement on Form S-1/A (File No. 333-33922) filed July 19, 2000.

(13) Incorporated by reference to exhibit 10.16 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended September 30, 2001 filed November 14, 2001.

(14) Incorporated by reference to exhibit 10.17 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended September 30, 2001 filed November 14, 2001.

(15) Incorporated by reference to exhibit 10.18 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended September 30, 2001 filed November 14, 2001.

(16) Incorporated by reference to exhibit 2.1 filed with our Form 8-K (File No. 000-30361) filed November 13, 2006.

(17) Incorporated by reference to exhibit 10.19 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended March 31, 2002 filed May 13, 2002.

(18) Incorporated by reference to the exhibit 10.20 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended March 31, 2002 filed May 13, 2002.

(19) Incorporated by reference to exhibit 10.12 filed with our Registration Statement on Form S-1 (File No. 333-33922) filed July 19, 2000.

(20) Incorporated by reference to the exhibit 10.22 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended March 31, 2002 filed May 13, 2002.

(21) Incorporated by reference to exhibit 10.24 filed with Amendment No. 1 to our Registration Statement on Form S-3 (File No. 333-111496) filed March 2, 2004.

(22) Incorporated by reference to exhibit 10.23 filed with our Amendment No. 1 to our Registration Statement on Form S-3 (File No. 333-111496) filed March 2, 2004.

(23) Incorporated by reference to exhibit 10.25 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended June 27, 2004 filed August 6, 2004.

(24) Incorporated by reference to exhibit 10.26 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended October 3, 2004 filed November 12, 2004.

(25) Incorporated by reference to exhibit 10.27 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended October 3, 2004 filed November 12, 2004.

(26) Incorporated by reference to exhibit 10.28 filed with our Form 10-K (File No. 000-30361) for the year ended January 2, 2005 filed March 8, 2005.

(27) Incorporated by reference to exhibit 10.33 filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended July 3, 2005 filed August 8, 2005.

(28) Incorporated by reference to exhibit 10.29 filed with our Form 10-K (File No. 000-30361) for the year ended January 2, 2005 filed March 8, 2005.

(29) Incorporated by reference to the same numbered exhibit filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended April 2, 2006 filed May 8, 2006.

(30) Incorporated by reference to the same numbered exhibit filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended July 2, 2006 filed August 2, 2006.

(31) [Reserved]

(32) [Reserved]

(33) [Reserved]

(34) Incorporated by reference to exhibit 10.1 filed with our Form 8-K (File No. 000-30361) filed November 13, 2006.

(35) Incorporated by reference to exhibit 4.1 filed with our Form 8-K (File No. 000-30361) filed February 16, 2007.

(36) Incorporated by reference to exhibit 4.2 filed with our Form 8-K (File No. 000-30361) filed February 16, 2007.

(37) Incorporated by reference to the same numbered exhibit filed with our Form 10-Q (File No. 000-30361) for the quarterly period ended April 1, 2007 filed May 3, 2007.

(38) [Reserved]

(39) [Reserved]

(40) [Reserved]

(41) Incorporated by reference to exhibit 99.3 filed with our Form 8-K (File No. 000-30361) filed November 26, 2007.

(42) Incorporated by reference to exhibit 99.4 filed with our Form 8-K (File No. 000-30361) filed November 26, 2007.

(43) Incorporated by reference to exhibit 99.5 filed with our Form 8-K (File No. 000-30361) filed November 26, 2007.

(44) Incorporated by reference to exhibit 10.1 filed with our Form 8-K (File No. 000-30361) filed February 16, 2007.

(45) Incorporated by reference to exhibit 10.2 filed with our Form 8-K (File No. 000-30361) filed February 16, 2007.

(46) Incorporated by reference to exhibit 10.3 filed with our Form 8-K (File No. 000-30361) filed February 16, 2007.

(47) Incorporated by reference to exhibit 10.4 filed with our Form 8-K (File No. 000-30361) filed February 16, 2007.

(48) Incorporated by reference to exhibit 10.5 filed with our Form 8-K (File No. 000-30361) filed February 16, 2007.

(49) Incorporated by reference to exhibit 10.6 filed with our Form 8-K (File No. 000-30361) filed February 16, 2007.

(50) Incorporated by reference to the same numbered exhibit filed with our Annual Report on Form 10-K (File No. 000-30361) for the year ended December 31, 2006 filed February 28, 2007.

Supplemental Information

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

SIGNATURES

Pursuant to the requirements of the Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 25, 2009.

ILLUMINA, INC.

BY /s/ JAY T. FLATLEY
Jay T. Flatley
President and Chief Executive Officer

February 25, 2009

POWER OF ATTORNEY

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

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

/s/ JAY T. FLATLEY Jay T. Flatley	President, Chief Executive Officer and Director (Principal Executive Officer)	February 25, 2009
/s/ CHRISTIAN O. HENRY Christian O. Henry	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	February 25, 2009
/s/ WILLIAM H. RASTETTER William H. Rastetter	Chairman of the Board of Directors	February 25, 2009
/s/ A. BLAINE BOWMAN A. Blaine Bowman	Director	February 25, 2009
/s/ DANIEL M. BRADBURY Daniel M. Bradbury	Director	February 25, 2009
/s/ KARIN EASTHAM Karin Eastham	Director	February 25, 2009

/s/ JACK GOLDSTEIN Jack Goldstein	Director	February 25, 2009
/s/ PAUL GRINT Paul Grint	Director	February 25, 2009
/s/ DAVID R. WALT David R. Walt	Director	February 25, 2009

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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 December 28, 2008 and December 30, 2007, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 28, 2008. Our audits also included the financial statement schedule listed in the Index at Item 15(a)(2). 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 December 28, 2008 and December 30, 2007, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 28, 2008, 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.

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 December 28, 2008, 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 24, 2009 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
February 24, 2009

ILLUMINA, INC.

CONSOLIDATED BALANCE SHEETS

	December 28, 2008	December 30, 2007
	(In thousands)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 327,024	$ 174,941
Short-term investments	313,051	211,141
Accounts receivable, net	133,266	83,119
Inventory, net	73,431	53,980
Deferred tax assets — current portion	8,635	26,934
Prepaid expenses and other current assets	9,530	12,640
Total current assets	864,937	562,755
Property and equipment, net	89,436	46,274
Long-term investments	55,900	—
Goodwill	228,734	228,734
Intangible assets, net	47,755	58,116
Deferred tax assets — long term portion	78,321	80,245
Other assets, net	12,017	11,608
Total assets	$1,377,100	$ 987,732
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 29,204	$ 24,311
Litigation settlements payable	—	90,536
Accrued liabilities	80,355	50,852
Current portion of long-term debt	399,999	16
Total current liabilities	509,558	165,715
Long-term debt, less current portion	—	400,000
Deferred gain on sale of land and building	2,314	2,485
Other long-term liabilities	16,632	7,854
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.01 par value, 10,000,000 shares authorized, no shares issued and outstanding at December 28, 2008 and December 30, 2007	—	—
Common stock, $0.01 par value, 320,000,000 shares authorized, 138,936,582 shares issued and outstanding at December 28, 2008, 125,607,354 shares issued and outstanding at December 30, 2007	1,389	1,256
Additional paid-in capital	1,499,708	1,043,674
Accumulated other comprehensive income	2,406	1,347
Accumulated deficit	(332,500)	(382,977)
Treasury stock, at cost (17,927,983 shares at December 28, 2008 and 14,819,090 shares at December 30, 2007)	(322,407)	(251,622)
Total stockholders' equity	848,596	411,678
Total liabilities and stockholders' equity	$1,377,100	$ 987,732

See accompanying notes to consolidated financial statements

ILLUMINA, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
	(In thousands, except per share amounts)		
Revenue			
Product revenue	$532,390	$ 326,699	$155,811
Service and other revenue	40,835	40,100	28,775
Total revenue	573,225	366,799	184,586
Costs and expenses:			
Cost of product revenue (excluding impairment of manufacturing equipment and amortization of intangible assets)	192,868	119,991	51,271
Cost of service and other revenue	12,756	12,445	8,073
Research and development	99,963	73,943	33,373
Selling, general and administrative	148,014	101,256	54,057
Impairment of manufacturing equipment	4,069	—	—
Amortization of intangible assets	10,438	2,429	—
Acquired in-process research and development	24,660	303,400	—
Litigation settlements	—	54,536	—
Total costs and expenses	492,768	668,000	146,774
Income (loss) from operations	80,457	(301,201)	37,812
Interest income	12,519	16,026	5,368
Interest and other expense, net	(2,070)	(3,610)	(560)
Income (loss) before income taxes	90,906	(288,785)	42,620
Provision (benefit) for income taxes	40,429	(10,426)	2,652
Net income (loss)	$ 50,477	$(278,359)	$ 39,968
Net income (loss) per basic share	$ 0.43	$ (2.57)	$ 0.45
Net income (loss) per diluted share	$ 0.38	$ (2.57)	$ 0.41
Shares used in calculating basic net income (loss) per share	116,855	108,308	89,002
Shares used in calculating diluted net income (loss) per share	133,607	108,308	97,508

See accompanying notes to consolidated financial statements

ILLUMINA, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-In	Deferred	Accumulated Other Comprehensive	Accumulated	Treasury Stock		Total Stockholders'
	Shares	Amount	Capital	Compensation	Income	Deficit	Shares	Amount	Equity
					(In thousands)				
Balance as of January 1, 2006	82,588	$ 826	$ 216,353	$(354)	$ 258	$(144,586)	—	$ —	$ 72,497
Issuance of common stock	11,126	112	114,384	—	—	—	—	—	114,496
May 2006 offering costs	—	—	(6,530)	—	—	—	—	—	(6,530)
Stock-based compensation	—	—	14,082	354	—	—	—	—	14,436
Incremental tax benefit related to stock options exercised	—	—	1,439	—	—	—	—	—	1,439
Comprehensive income:									
Unrealized gain on available-for-sale securities, net of deferred tax	—	—	—	—	10,693	—	—	—	10,693
Unrealized loss on hedging contracts	—	—	—	—	(10)	—	—	—	(10)
Foreign currency translation adjustment	—	—	—	—	353	—	—	—	353
Net income	—	—	—	—	—	39,968	—	—	39,968
Comprehensive income									51,004
Balance as of December 31, 2006	93,714	$ 938	$ 339,728	$ —	$ 11,294	$(104,618)	—	$ —	$ 247,342
Issuance of common stock	4,654	46	30,044	—	—	—	—	—	30,090
Issuance of common stock for the acquisition of Solexa, Inc.	26,442	264	530,460	—	—	—	—	—	530,724
Fair value of options assumed from Solexa, Inc.	—	—	75,334	—	—	—	—	—	75,334
Convertible note hedge	—	—	(139,040)	—	—	—	—	—	(139,040)
Warrants issued in connection with the convertible debt issuance	—	—	92,440	—	—	—	—	—	92,440
Warrants exercised	798	8	6,067	—	—	—	—	—	6,075
Stock-based compensation	—	—	33,926	—	—	—	—	—	33,926
Incremental tax benefit related to stock options exercised	—	—	20,086	—	—	—	—	—	20,086
Incremental tax benefit related to convertible debt issuance	—	—	54,629	—	—	—	—	—	54,629
Repurchases of common stock	—	—	—	—	—	—	(14,819)	(251,622)	(251,622)
Comprehensive loss:									
Unrealized loss on available-for-sale securities, net of deferred tax	—	—	—	—	(10,529)	—	—	—	(10,529)
Foreign currency translation adjustment	—	—	—	—	582	—	—	—	582
Net loss	—	—	—	—	—	(278,359)	—	—	(278,359)
Comprehensive loss									(288,306)
Balance as of December 30, 2007	125,608	$1,256	$1,043,674	$ —	$ 1,347	$(382,977)	(14,819)	$(251,622)	$ 411,678
Issuance of common stock in conjunction with secondary offering, net of issuance costs	8,050	80	342,570	—	—	—	—	—	342,650
Issuance of common stock under employee stock plans	4,923	49	44,281	—	—	—	—	—	44,330
Warrants exercised	356	4	2,987	—	—	—	—	—	2,991
Stock-based compensation	—	—	47,695	—	—	—	—	—	47,695
Incremental tax benefit related to stock options exercised	—	—	18,501	—	—	—	—	—	18,501
Repurchases of common stock	—	—	—	—	—	—	(3,109)	(70,785)	(70,785)
Comprehensive income:									
Unrealized gain on available-for-sale securities, net of deferred tax	—	—	—	—	920	—	—	—	920
Foreign currency translation adjustment	—	—	—	—	139	—	—	—	139
Net income	—	—	—	—	—	50,477	—	—	50,477
Comprehensive income									51,552
Balance as of December 28, 2008	138,937	$1,389	$1,499,708	$ —	$ 2,406	$(332,500)	(17,928)	$(322,407)	$ 848,596

See accompanying notes to consolidated financial statements

ILLUMINA, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
		(In thousands)	
Cash flows from operating activities:			
Net income (loss)	$ 50,477	$(278,359)	$ 39,968
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Acquired in-process research and development	24,660	303,400	—
Amortization of increase in inventory valuation	—	942	—
Amortization of intangible assets	10,438	2,429	—
Amortization of debt issuance costs	1,374	1,176	—
Depreciation expense	17,285	11,464	6,032
Loss on disposal of property and equipment	262	15	116
Impairment of manufacturing equipment	4,069	—	—
Stock-based compensation expense	47,688	33,746	14,304
Incremental tax benefit related to stock options exercised	(18,501)	(20,086)	(1,439)
Amortization of gain on sale of land and building	(170)	(187)	(375)
Changes in operating assets and liabilities:			
Accounts receivable	(57,672)	(37,060)	(21,733)
Inventory	(19,560)	(27,130)	(9,728)
Prepaid expenses and other current assets	2,322	(6,127)	(1,591)
Deferred income taxes	38,692	(11,408)	(548)
Other assets	(1,815)	2,612	(5,212)
Accounts payable	4,840	12,262	2,438
Litigation settlements payable	(54,536)	54,536	—
Accrued income taxes	2,377	1,586	1,809
Accrued liabilities	29,339	15,901	9,066
Other long-term liabilities	6,313	(3,418)	5,893
Net cash provided by operating activities	87,882	56,294	39,000
Cash flows from investing activities:			
Cash (paid for) obtained in acquisition, including cash paid for transaction costs	(24,666)	72,075	—
Investment in secured convertible debentures	—	—	(3,036)
Sale of secured convertible debentures	—	3,593	—
Investment in Solexa	—	—	(50,000)
Purchases of available-for-sale securities	(568,707)	(598,383)	(236,331)
Sales and maturities of available-for-sale securities	411,817	479,415	143,846
Purchase of property and equipment	(59,693)	(24,301)	(15,114)
Cash paid for intangible assets	(36,000)	(85)	(100)
Net cash used in investing activities	(277,249)	(67,686)	(160,735)
Cash flows from financing activities:			
Payments on long-term debt	(15)	(95)	(109)
Proceeds from issuance of convertible debt, net of issuance costs	—	390,269	—
Purchase of convertible note hedges	—	(139,040)	—
Proceeds from warrant exercises	2,991	98,515	—
Common stock repurchases	(70,785)	(251,622)	—
Proceeds from secondary offering, net of issuance cost	342,650	—	—
Proceeds from issuance of common stock	44,330	30,179	107,966
Incremental tax benefit related to stock options exercised	18,501	20,086	1,439
Net cash provided by financing activities	337,672	148,292	109,296
Effect of foreign currency translation on cash and cash equivalents	3,778	(345)	3
Net increase (decrease) in cash and cash equivalents	152,083	136,555	(12,436)
Cash and cash equivalents at beginning of the year	174,941	38,386	50,822
Cash and cash equivalents at end of the year	$ 327,024	$ 174,941	$ 38,386
Supplemental disclosures of cash flow information:			
Cash paid for interest	$ 2,553	$ 1,378	$ 11
Cash (refunded) paid for income taxes	$ (1,653)	$ 2,581	$ 1,392

See accompanying notes to consolidated financial statements

1. Organization and Summary of Significant Accounting Policies

Organization and Business

Illumina, Inc. (the Company) was incorporated on April 28, 1998. The Company is a leading developer, manufacturer and marketer of integrated systems for the large-scale analysis of genetic variation and biological function. Using the Company's proprietary technologies, the Company provides a comprehensive line of products and services that currently serve the sequencing, genotyping and gene expression markets. The Company also expects to enter the market for molecular diagnostics. The Company's customers include leading genomic research centers, pharmaceutical companies, academic institutions, clinical research organizations and biotechnology companies. The Company's tools provide researchers around the world with the performance, throughput, cost effectiveness and flexibility necessary to perform the billions of genetic tests needed to extract valuable medical information from advances in genomics and proteomics. The Company believes this information will enable researchers to correlate genetic variation and biological function, which will enhance drug discovery and clinical research, allow diseases to be detected earlier and permit better choices of drugs for individual patients.

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, and September 30. The years ended December 28, 2008, December 30, 2007 and December 31, 2006 were all 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 and expenses and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Cash Equivalents and Investments

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

Short-term investments consist of U.S. Treasury and U.S. government agency securities, municipal notes, corporate notes and bonds and commercial paper. All short-term investments have been designated as available-for-sale securities recorded at estimated fair value with the related unrealized gains and losses included in accumulated other comprehensive income, a component of stockholders' equity. The Company accounts for investments in debt and equity instruments in accordance with SFAS, No. 115, *Accounting for Certain Investments in Debt and Equity Securities* and FASB Staff Position, or FSP, No. 115-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments*, or FSP 115-1. Management determines the appropriate classification of such securities at the time of purchase and reevaluates such classification as of each balance sheet date. The Company follows the guidance provided by FSP 115-1, to assess whether investments with unrealized loss positions are other than temporarily impaired. 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 Interest and other expense, net in the consolidated statements of operations.

Long-term investments are comprised of the Company's auction rate securities and a put option related to the Company's settlement agreement with UBS that gives the Company the right to sell its auction rate securities to UBS at par value at a future date. Both the auction rate securities and the put option are recorded at estimated fair value and unrealized gains and losses, if any, are recognized in Interest income on the consolidated statements of operations. Historically, the Company's auction rate securities were classified as available-for-sale securities, however, during the fourth quarter of fiscal 2008, the Company reclassified the auction rate securities from available-for-sale to trading securities. See Note 4 for further detailed discussion.

Fair Value of Financial Instruments

The carrying amounts of financial instruments such as cash equivalents, foreign cash accounts, accounts receivable, prepaid expenses and other current assets, accounts payable, accrued expenses and other current liabilities 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 fair value of the Company's convertible notes at December 28, 2008 and December 30, 2007 are $473.0 million and $596.3 million, respectively.

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 December 28, 2008 were deposited with financial institutions in the United States and 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 securities issued by the U.S government and money market funds. The Company has historically not experienced significant credit losses from investments and accounts receivable. The Company performs a regular review of customer activity and associated credit risks.

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.

Shipments to customers outside the United States comprised 51%, 43% and 44% of the Company's revenue for the years ended December 28, 2008, December 30, 2007 and December 31, 2006, respectively. Customers outside the United States represented 61% and 46% of the Company's net accounts receivable balance as of December 28, 2008 and December 30, 2007, 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.

Inventories

Inventories are 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 provided based on product life cycle and development plans, product expiration and quality issues, historical experience and inventory levels.

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. 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 unless the expected benefit pattern is declining, in which case an accelerated method is used.

The Company regularly performs reviews to determine if the carrying values of the long-lived assets are impaired. In accordance with SFAS 142, *Goodwill and Other Intangible Assets,* goodwill and other intangible assets that have indefinite useful lives 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 Company performed its annual impairment test of goodwill as of May 30, 2008, utilizing a test that begins with an estimate of the fair value of the reporting unit or intangible asset, noting no impairment and has determined there has been no impairment indicators for goodwill through December 28, 2008. 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 in accordance with SFAS 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. If indicators of impairment exist, the Company assesses the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, the Company measures the future discounted cash flows associated with the use 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 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 instrumentation. At the time revenue is recognized, the Company establishes an accrual for estimated warranty expenses associated with system sales. This expense is recorded as a component of cost of revenue.

Revenue Recognition

The Company's revenue is generated primarily from the sale of products and services. Product revenue consists of sales of arrays, reagents, flow cells, instrumentation, oligonucleotides (oligos) and associated freight charges. Service and other revenue 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 applicable allowances for returns or discounts.

Revenue for product sales is recognized generally upon shipment and transfer of title to the customer, provided no significant obligations remain and collection of the receivables is reasonably assured. Revenue from the sale of instrumentation is recognized when earned, which is generally upon shipment. Revenue for genotyping and sequencing services is recognized when earned, which is generally at the time the genotyping or sequencing analysis data is delivered to the customer.

In order to assess whether the price is fixed and determinable, the Company ensures there are no refund rights. If payment terms are based on future performance, the Company defers revenue recognition until the price becomes fixed and 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 the time collection becomes reasonably assured, which is generally upon receipt of payment.

Sales of instrumentation generally include a standard one-year warranty. The Company also sells separately priced maintenance (extended warranty) contracts, which are generally for one or two years, upon the expiration of the initial warranty. Revenue for extended warranty sales is recognized ratably over the term of the extended warranty period. Reserves are provided for estimated product warranty expenses at the time the associated revenue is recognized. If the Company were to experience an increase in warranty claims or if costs of servicing its warrantied products were greater than its estimates, gross margins could be adversely affected.

While the majority of its sales agreements contain standard terms and conditions, the Company does enter into agreements that contain multiple elements or non-standard terms and conditions. Emerging Issues Task Force (EITF) No. 00-21, *Revenue Arrangements with Multiple Deliverables,* provides guidance on accounting for arrangements that involve the delivery or performance of multiple products, services, or rights to use assets within contractually binding arrangements. For arrangements with multiple elements, revenue recognition is based on the individual units of accounting determined to exist in the arrangement. A delivered item is considered a separate unit of accounting when the delivered item has value to the customer on a stand-alone basis and there is objective and reliable evidence of the fair value of the undelivered items. 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. The fair value of an item is generally the price charged for the product, if the item is regularly sold on a stand-alone basis. When objective and reliable evidence of fair value exists for all units of accounting in an arrangement, the arrangement consideration is generally allocated to each unit

of accounting based upon its relative fair value. In those instances when objective and reliable evidence of fair value exists for the undelivered items but not for the delivered items, the residual method is used to allocate the arrangement consideration. Under the residual method, the amount of arrangement consideration allocated to the delivered items equals the total arrangement consideration less the aggregate fair value of the undelivered items. When the Company is unable to establish stand-alone value for delivered items or when fair value of undelivered items has not been established, revenue is deferred until all elements are delivered and services have been performed, or until fair value can objectively be determined for any remaining undelivered elements. The Company recognizes revenue for delivered elements only when it determines that the fair values of undelivered elements are known and there are no uncertainties regarding customer acceptance.

Shipping and Handling Expenses

Shipping and handling expenses are included in cost of product revenue and totaled $3.7 million, $2.2 million and $1.8 million for the years ended December 28, 2008, December 30, 2007 and December 31, 2006, respectively.

Research and Development

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

Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs were $3.4 million, $2.8 million and $1.9 million for the years ended December 28, 2008, December 30, 2007 and December 31, 2006, respectively.

Income Taxes

In accordance with SFAS No. 109, *Accounting for Income Taxes*, the provision for income taxes is computed using the asset and liability method, under which deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities, and for the expected future tax benefit to be derived from tax loss and credit carryforwards. Deferred tax assets and liabilities are determined using the enacted tax rates in effect for the years in which those tax assets are expected to be realized. A valuation allowance is established when it is more likely than not the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis, and includes a review of all available positive and negative evidence. Factors reviewed include projections of pre-tax book income over the foreseeable future, determination of cumulative pre-tax book income after permanent differences, history of earnings, and reliability of forecasting. As of December 28, 2008, the Company maintained a valuation allowance only against certain U.S. and foreign deferred tax assets that the Company concluded did not meet the “more likely than not” threshold required under SFAS No. 109.

Due to the adoption of SFAS No. 123R, the Company recognizes excess tax benefits associated with share-based compensation to stockholders’ equity only when realized. When assessing whether excess tax benefits relating to share-based compensation have been realized, the Company follows the with-and-without approach excluding any indirect effects of the excess tax deductions. Under this approach, excess tax benefits related to share-based compensation are not deemed to be realized until after the utilization of all other tax benefits available to the Company.

Effective January 1, 2007, the Company adopted FASB Interpretation (FIN) No. 48, *Accounting for Uncertainty in Income Taxes — an interpretation of FASB Statement No. 109*, which clarifies the accounting for uncertainty in tax positions. FIN No. 48 requires recognition of the impact of a tax position in the Company's financial statements only if that position is more likely than not of being sustained upon examination by taxing authorities, based on the technical merits of the position. Any interest and penalties related to uncertain tax positions will be reflected in income tax expense.

Functional Currency

Historically, the Company identified the local currency as the functional currency in each of its foreign subsidiaries, and the effects of translation were recorded as other comprehensive income (loss). During the third quarter of 2008, the Company reorganized its international structure to execute a more efficient relationship between product development, product manufacturing and sales. The reorganization increased the 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, the Company reassessed the primary economic environment of its foreign subsidiaries and determined the subsidiaries are more U.S. dollar based, resulting in a U.S. dollar functional currency determination. As a result of this change, beginning in the third quarter of 2008, the Company remeasures its foreign subsidiaries' assets and liabilities and income and expense accounts related to nonmonetary assets and liabilities to the U.S. dollar and records the net gains or losses resulting from remeasurement in its consolidated statements of operations within interest and other expense, net.

Stock-Based Compensation

The Company accounts for share-based compensation using the fair value recognition provisions of SFAS 123(R), *Share-Based Payment* using the Black-Scholes-Merton option-pricing model to estimate the fair value of stock options granted and stock purchases under the Employee Stock Purchase Plan (ESPP). This model incorporates various assumptions including volatility, expected life, and interest rates. Historically, the Company used an expected stock-price volatility assumption that was primarily based on historical realized volatility of the underlying stock during a period of time. Beginning the third quarter of 2007, volatility was determined by equally weighing the historical and implied volatility of the Company's common stock. The historical volatility of the Company's common stock over the most recent period is generally commensurate with the estimated expected life of the Company's stock options, adjusted for the impact of unusual fluctuations not reasonably expected to recur and other relevant factors. The implied volatility is calculated from the implied market volatility of exchange-traded call options on the Company's common stock. The expected life of an award is based on historical experience and on the terms and conditions of the stock awards granted to employees.

The assumptions used for the specified reporting periods and the resulting estimates of weighted-average fair value per share of options granted and for stock purchases under the ESPP during those periods are as follows:

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
Interest rate — stock options	2.31 - 3.52%	3.68 - 4.90%	4.73%
Interest rate — stock purchases	1.88 - 4.71%	4.71 - 4.86%	4.08 - 4.85%
Volatility — stock options	51 - 65%	55 - 70%	76%
Volatility — stock purchases	53 - 69%	69 - 76%	76 - 90%
Expected life — stock options	5 - 6 years	6 years	6 years
Expected life — stock purchases	6 - 12 months	6 - 12 months	6 - 12 months
Expected dividend yield	0%	0%	0%
Weighted average fair value per share of options granted	$18.31	$12.86	$9.44
Weighted average fair value per share of employee stock purchases	$11.45	$7.33	$2.38

The fair value of restricted stock units granted during the years ended December 28, 2008 and December 30, 2007 was based on the market price of our common stock on the date of grant. No restricted stock units were granted during the year ended December 31, 2006.

As of December 28, 2008, $152.8 million of total unrecognized compensation cost related to stock options, restricted stock and ESPP shares issued to date is expected to be recognized over a weighted-average period of approximately 1.9 years.

Total share-based compensation expense for employee stock options and stock purchases consists of the following (in thousands, except per share data):

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
Cost of product revenue	$ 4,710	$ 4,045	$ 1,289
Cost of service and other revenue	400	279	235
Research and development	14,086	10,016	3,891
Selling, general and administrative	28,492	19,406	8,889
Share-based compensation expense before taxes	47,688	33,746	14,304
Related income tax benefits	(15,844)	(11,005)	—
Share-based compensation expense, net of taxes	$ 31,844	$ 22,741	$14,304
Net share-based compensation expense per share of common stock:			
Basic	$ 0.27	$ 0.21	$ 0.16
Diluted	$ 0.24	$ 0.21	$ 0.15

Net Income (Loss) per Share

On July 22, 2008, the Company announced a two-for-one stock split in the form of a 100% stock dividend with a record date of September 10, 2008 and a distribution date of September 22, 2008. Share and per share amounts have been restated to reflect the stock split for all periods presented.

Basic and diluted net income (loss) per share of common stock is presented in conformity with SFAS No. 128, *Earnings per Share,* for all periods presented. In accordance with SFAS No. 128, basic net income (loss) per share is computed using the weighted-average number of shares of common stock outstanding during the period, less shares held in treasury and shares subject to repurchase. Diluted net income (loss) per share is computed using the weighted average number of common and dilutive common equivalent shares from the Company's Convertible Senior Notes, equity awards, warrants sold in connection with the Convertible Senior Notes and warrants assumed in the acquisition of Solexa, Inc. (Solexa) using the treasury stock method. The following table presents the calculation of weighted-average shares used to calculate basic and diluted net income (loss) per share (in thousands):

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
Weighted-average shares outstanding	116,855	108,328	89,074
Less: Weighted-average shares of common stock subject to repurchase	—	(20)	(72)
Weighted-average shares used in calculating basic net income (loss) per share	116,855	108,308	89,002
Plus: Effect of dilutive Convertible Senior Notes	6,653	—	—
Plus: Effect of dilutive equity awards	5,373	—	8,506
Plus: Effect of dilutive warrants sold in connection with the Convertible Senior Notes	2,487	—	—
Plus: Effect of dilutive warrants assumed in the acquisition of Solexa	2,239	—	—
Weighted-average shares used in calculating diluted net income (loss) per share	133,607	108,308	97,508
Weighted average shares excluded from calculation due to anti-dilutive effect	370	42,882	401

Comprehensive Income

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). Other comprehensive income (loss) includes unrealized gains and losses on the Company's available-for-sale securities and foreign currency translation adjustments. The Company has disclosed comprehensive income as a component of stockholders' equity.

The components of accumulated other comprehensive income are as follows (in thousands):

	December 28, 2008	December 30, 2007
Foreign currency translation adjustments	$2,103	$1,183
Unrealized gain on available-for-sale securities, net of deferred tax	303	164
Total other comprehensive income	$2,406	$1,347

Recent Accounting Pronouncements

Adopted Accounting Pronouncements

During fiscal 2008, the Company adopted SFAS No. 157, "*Fair Value Measurements*". In February 2008, the FASB issued Staff Position No. FSP 157-2, "*Effective Date of FASB Statement No. 157*" (FSP 157-2), which provides a one year deferral of the effective date of SFAS No. 157 for non-financial assets and non-financial liabilities, except those that are recognized or disclosed in the financial statements at fair value at least annually. Therefore, the Company has adopted the provisions of SFAS No. 157 with respect to its financial assets and liabilities only. The adoption of this statement did not have a material impact on the Company's consolidated statements of operations or financial condition. On October 10, 2008, the FASB issued FSP No. 157-3, "*Determining the Fair Value of a Financial Asset When the Market for That Asset is Not Active*" (FSP 157-3) that clarifies the application of SFAS No. 157 in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial assets is not active. FSP 157-3 is effective for all periods presented in accordance with SFAS No. 157. The Company considered the additional guidance with respect to the valuation of its financial assets and liabilities and their corresponding designation within the fair value hierarchy. All short-term investments were valued using quoted prices in active markets or Level 1 hierarchical inputs. Long-term investments were valued using Level 3 hierarchical inputs due to the lack of trading in the secondary market of these instruments. Refer to Notes 3 and 4.

During fiscal 2008, the Company adopted SFAS No. 159 "*The Fair Value Option for Financial Assets and Financial Liabilities*". SFAS No. 159 allows an entity the irrevocable option to elect fair value for the initial and subsequent measurement for specified financial assets and liabilities on a contract-by-contract basis. The objective of the guidance is to improve financial reporting by providing entities with the opportunity to mitigate volatility in reported earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. The adoption of SFAS No. 159 impacted the accounting for the put option recorded as a result of the signed settlement agreement with UBS AG (UBS) in November 2008. Refer to Note 4.

New Accounting Pronouncements

SFAS No. 141(R), *Business Combinations*, was issued in December of 2007. SFAS No. 141(R) establishes principles and requirements for how the acquirer of a business recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquiree. SFAS No. 141(R) also provides guidance for recognizing and measuring the goodwill acquired in the business combination and sets forth what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. The guidance will become effective for fiscal years beginning after December 15, 2008. The Company is currently evaluating the impact the adoption of this pronouncement will have on the Company's consolidated financial statements.

SFAS No. 160, *Interests in Consolidated Financial Statements — an amendment of ARB No. 51,* which impacts the accounting for minority interest in the consolidated financial statements of filers, was also issued in December 2007. The statement requires the reclassification of minority interest to the equity section of the balance sheet and the results from operations attributed to minority interest to be included in net income. The related minority interest impact on earnings would then be disclosed in the summary of other comprehensive income. The statement is applicable for all fiscal years beginning on or after December 15, 2008 and earlier adoption is prohibited. The adoption of this standard will require prospective treatment. The Company is currently evaluating the impact, if any, the adoption of this pronouncement will have on the Company's consolidated financial statements.

In December 2007 the Financial Accounting Standards Board (FASB) ratified EITF Issue 07-1, *Accounting for Collaborative Arrangements*. EITF Issue 07-1 focuses on defining a collaborative arrangement as well as the accounting for transactions between participants in a collaborative arrangement and between the participants in the arrangement and third parties. The EITF concluded that both types of transactions should be reported in each participant's respective income statement. EITF Issue 07-1 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years and should be applied retrospectively to all prior periods presented for all collaborative arrangements existing as of the effective date. The Company is currently evaluating the impact, if any, the adoption of this pronouncement will have on the Company's consolidated financial statements.

In May 2008, the FASB issued FASB Staff Position (FSP) Accounting Principles Board Opinions (APB) 14-1, *Accounting for Convertible Debt Instruments that May be Settled in Cash upon Conversion (Including Partial Cash Settlement)* (FSP APB 14-1 or the FSP) that significantly impacts the accounting for convertible debt. The FSP requires issuers of convertible debt that may be settled fully or partially in cash upon conversion to account separately for the liability and equity components of the convertible debt. The liability component is measured so that the effective interest expense associated with the convertible debt reflects the issuer's borrowing rate at the date of issuance for similar debt instruments without the conversion feature. This FSP applies to our Convertible Senior Notes and will be effective for us beginning on December 29, 2009. This FSP will be applied retrospectively to all periods that will be presented in our consolidated financial statements beginning after December 29, 2009. Upon adoption, we will retrospectively record a decrease in the book value of our 0.625% Convertible Senior Notes of approximately $150.0 million as of December 28, 2008, an increase in additional paid-in capital and a cumulative effect of a change in accounting principles in our consolidated financial statements, and we will begin recording an additional non-cash interest expense ranging from approximately $20.0 million to 30.0 million per year. The additional interest expense, net of taxes, will reduce net income by a range of approximately $13.0 million to $20.0 million per year. We will continue to record this additional interest expense over the expected life of the debt. These amounts represent management's best estimates of the effects the adoption of this pronouncement will have on the Company's consolidated financial statements, however actual amounts may vary significantly from our current estimate.

In October 2008, the FASB issued FASB FSP SFAS 157-3, *Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active*. The FSP clarifies the application of FASB Statement No. 157, *Fair Value Measurements*, in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active. The FSP is effective upon issuance, including for prior periods for which financial statements have not been issued. Revisions resulting from a change in the valuation technique or its application should be accounted for as a change in accounting estimate following the guidance in FASB Statement No. 154, *Accounting Changes and Error Corrections*. However, the disclosure provisions in Statement 154 for a change in accounting estimate are not required for revisions resulting from a change in valuation technique or its application. The Company believes the impact of this pronouncement on the Company's consolidated financial statements to be immaterial.

2. Acquisitions

Avantome, Inc.

On August 1, 2008, the Company completed its acquisition of Avantome, Inc. (Avantome), a privately-held Delaware corporation. As consideration for the acquisition, the Company paid $25.8 million in cash, including transaction costs, and may pay up to an additional $35.0 million in contingent cash consideration based on the achievement of certain milestones. The Company assumed $1.1 million in net assets, and recorded a charge of $24.7 million for purchased in-process research and development (IPR&D) primarily associated with the development of Avantome's low-cost, long read-length sequencing technology. The amount

allocated to IPR&D was expensed upon acquisition as it was determined that the underlying project had not reached technological feasibility and had no alternative future use. The Company has assessed the contingent consideration payable in accordance with the provisions of SFAS No. 141, *Business Combinations*, and EITF 95-8, *Accounting for Contingent Consideration Paid to the Shareholders of an Acquired Enterprise in a Purchase Business Combination.* Contingent consideration of $11.0 million will be recorded as compensation expense over a three-year period as this consideration is earned by the former primary shareholders of Avantome contingent upon their employment with the Company for three years. The remaining contingent consideration of $24.0 million will be recorded as additional purchase price if and when certain milestones are achieved or the amount due is determinable beyond a reasonable doubt.

The results of Avantome's operations have been included in the Company's consolidated financial statements since the acquisition date of August 1, 2008. Pro forma results of operations have not been presented because the effects of the acquisition were not material.

Solexa, Inc.

On January 26, 2007, the Company completed its acquisition of Solexa, a Delaware corporation, in a stock-for-stock merger transaction. The Company issued 26.2 million shares of its common stock as consideration for this merger.

The purchase price of the acquisition is as follows (in thousands):

Fair market value of securities issued	$527,067
Fair market value of change of control bonuses and related taxes	8,182
Transaction costs not included in Solexa net tangible assets acquired	8,138
Fair market value of vested stock options, warrants and restricted stock assumed	75,334
Total purchase price	$618,721

Based on the estimated fair values at the acquisition date, the Company allocated $303.4 million to IPR&D, $62.2 million to tangible assets acquired and liabilities assumed and $24.4 million to intangible assets. The remaining excess of the purchase price over the fair value of net assets acquired of $228.7 million was allocated to goodwill.

The results of Solexa's operations have been included in the Company's consolidated financial statements since the acquisition date of January 26, 2007. The following unaudited pro forma information shows the results of the Company's operations for the specified reporting periods as though the acquisition had occurred as of the beginning of that period (in thousands, except per share data):

	Year Ended December 30, 2007	Year Ended December 31, 2006
Revenue	$366,854	$187,103
Net income (loss)	$ 17,388	$ (38,957)
Net income (loss) per share, basic	$ 0.16	$ (0.34)
Net income (loss) per share, diluted	$ 0.15	$ (0.34)

The pro forma results have been prepared for comparative purposes only and are not necessarily indicative of the actual results of operations had the acquisition taken place as of the beginning of the period presented, or the results that may occur in the future. The pro forma results exclude the $303.4 million non-cash acquired IPR&D charge recorded upon the closing of the acquisition during the first quarter of 2007.

3. Balance Sheet Account Details

The following is a summary of short-term investments (in thousands):

	December 28, 2008			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. Treasury securities and obligations of U.S. government agencies	$218,964	$1,544	$ —	$220,508
Corporate debt securities	92,301	547	(305)	92,543
Total	$311,265	$2,091	$(305)	$313,051

	December 30, 2007			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. Treasury securities and obligations of U.S. government agencies	$ 42,648	$108	$ —	$ 42,756
Debt securities issued by the states of the United States and political subdivisions of the states	14,675	—	—	14,675
Corporate debt securities	153,547	252	(89)	153,710
Total	$210,870	$360	$(89)	$211,141

Gross realized losses on sales of available-for-sale securities were immaterial for the years ended December 28, 2008, December 30, 2007 and December 31, 2006. Gross realized gains on sales of available-for-sale securities totaled $0.6 million for the year ended December 28, 2008 and were immaterial for the years ended December 30, 2007 and December 31, 2006. As of December 28, 2008, all of the Company's investments in a gross unrealized loss position had been in such position for less than twelve months. Impairments are not considered other than temporary as the Company has the intent and ability to hold these investments until maturity.

Contractual maturities of short-term investments at December 28, 2008 were as follows (in thousands):

	Estimated Fair Value
Due within one year	$204,774
After one but within five years	108,277
Total	$313,051

Accounts receivable consist of the following (in thousands):

	December 28, 2008	December 30, 2007
Accounts receivable from product and service sales	$132,564	$82,144
Other receivables	1,840	1,515
	134,404	83,659
Allowance for doubtful accounts	(1,138)	(540)
Total	$133,266	$83,119

Inventory, net, consists of the following (in thousands):

	December 28, 2008	December 30, 2007
Raw materials	$32,501	$27,098
Work in process	34,063	20,321
Finished goods	6,867	6,561
Total	$73,431	$53,980

Property and equipment consist of the following (in thousands):

	December 28, 2008	December 30, 2007
Leasehold improvements	$ 26,637	$ 4,531
Manufacturing and laboratory equipment	83,317	50,384
Computer equipment and software	27,490	18,772
Furniture and fixtures	4,167	3,691
	141,611	77,378
Accumulated depreciation and amortization	(52,175)	(31,104)
Total	$ 89,436	$ 46,274

Depreciation expense was $17.3 million, $11.5 million and $6.0 million for the years ended December 28, 2008, December 30, 2007 and December 31, 2006, respectively.

Accrued liabilities consist of the following (in thousands):

	December 28, 2008	December 30, 2007
Compensation	$30,330	$17,410
Short-term deferred revenue	15,862	7,541
Taxes	9,456	8,298
Reserve for product warranties	8,203	3,716
Customer deposits	6,583	5,266
Accrued royalties	2,695	1,867
Legal and other professional fees	1,708	4,276
Other	5,518	2,478
Total	$80,355	$50,852

4. Long-term Investments

The Company has $55.9 million (at cost) in auction rate securities issued primarily by municipalities and universities. The auction rate securities are held in a brokerage account with UBS. These securities are debt instruments with a long-term maturity and with an interest rate that is reset in short intervals through auctions. The Company's entire auction rate portfolio is currently rated AAA or AA by a rating agency.

The markets for auction rate securities effectively ceased when the vast majority of auctions failed in February 2008, preventing investors from selling their auction rate securities. As of December 28, 2008, the securities continued to fail auction and remained illiquid. As a result, the Company recorded an unrealized loss of $8.7 million for the year ended December 28, 2008, resulting in a reduction to the fair value of the

Company's auction rate securities to $47.2 million. This unrealized loss was determined in accordance with SFAS No. 157, *Fair Value Measurements*.

As a basis for considering market participant assumptions in fair value measurements, SFAS No. 157 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels including the following:

- *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 fair value hierarchy gives the highest priority to Level 1 and the lowest priority to Level 3. In determining the fair value of the Company's auction rate securities, the Company considered trades in the secondary market. However, due to the recent auction failures of the auction rate securities in the marketplace and the lack of trading in the secondary market of these instruments, there was insufficient observable auction rate security market information available to directly determine the fair value of the Company's investments. As a result, the value of these auction rate securities and resulting unrealized loss was determined using Level 3 hierarchical inputs. These inputs include management's assumptions of pricing by market participants, including assumptions about risk. In accordance with SFAS No. 157, the Company used the concepts of fair value based on estimated discounted future cash flows of interest income over a projected five year period reflective of the length of time until the Company's securities are expected to become liquid or potentially get repurchased. In preparing this model, the Company used historical data of the rates upon which a majority of the auction rate securities' contractual rates were based, such as the LIBOR and average trailing twelve-month 90-day Treasury interest rate spreads, to estimate future interest rates. The Company also considered the discount factors, taking into account the credit ratings of the auction rate securities, using a discount rate of 5%. The Company obtained information from multiple sources, including UBS, to determine a reasonable range of assumptions to use in valuing the auction rate securities. The Company's model was corroborated by a separate comparable cash flow analysis prepared by UBS. To understand the sensitivity of the Company's valuation, the liquidity factor and estimated remaining life was varied. Variations in those results were evaluated and it was determined the factors and valuation method chosen were reasonable and representative of the Company's auction rate security portfolio.

The Company classified these securities as long-term assets since the Company believes it may not be able to liquidate its investments without significant loss within the next year. As of December 30, 2007, these securities were classified as short-term since the failures of these auctions did not occur until February 2008.

As a result of the auction rate failures, various regulatory agencies initiated investigations into the sales and marketing practices of several banks and broker-dealers, including UBS, which sold auction rate securities, alleging violations of federal and state laws. Along with several other broker-dealers, UBS subsequently reached a settlement with the federal and state regulators that required them to repurchase auction rate securities from certain investors at par at some future date. In November 2008 the Company signed a settlement agreement to sell its auction rate securities at par value to UBS during the period of June 30, 2010 through July 2, 2012 (the Settlement). In accepting the Settlement, the Company released UBS from any claims relating to the marketing and sale of auction rate securities. Although the Company expects to sell its auction rates securities under the Settlement, if the Settlement is not exercised before July 2, 2012, it will expire and UBS will have no further rights or obligation to buy the Company's auction rate securities. In lieu of the acceptance of the Settlement, the auction rate securities will continue to accrue interest as

determined by the auction process or the terms outlined in the prospectus of the auction rate securities if the auction process fails. In addition to offering to repurchase the Company's auction rate securities, as part of the Settlement, UBS has agreed to provide the Company with a "no net cost" loan up to 75% of the par value of the auction rate securities until June 30, 2010. Per the terms of the Settlement, the interest rate on the loan will approximate the weighted average interest or dividend rate payable to the Company by the issuer of any auction rate securities pledged as collateral.

UBS's obligations under the Settlement are not secured by its assets and do not require UBS to obtain any financing to support its performance obligations under the Settlement. UBS has disclaimed any assurance that it will have sufficient financial resources to satisfy its obligations under the Settlement.

To account for the Settlement, the Company recorded a separate freestanding asset (put option) of $8.7 million and recognized a corresponding gain in earnings during the fourth quarter of 2008. The fair value of the put option is included in long-term investments on the balance sheet as of December 28, 2008 with the corresponding gain classified as interest income in the consolidated statement of operations for the year ended December 28, 2008. The put option does not meet the definition of a derivative instrument under SFAS No. 133, therefore, the Company elected to measure the put option at fair value under SFAS No. 159. The Company valued the put option using a discounted cash flow approach including estimates of interest rates, timing and amount of cash flow, with consideration given to UBS's financial ability to repurchase the auction rate securities beginning June 30, 2010. These assumptions are volatile and subject to change as the underlying sources of these assumptions and market conditions change.

Prior to accepting the UBS offer, the Company recorded its auction rate securities as available-for-sale investments, and therefore recorded resulting unrealized gains or losses in accumulated other comprehensive income in its statements of stockholders' equity. By signing the settlement agreement, the Company no longer had the intent of holding the auction rate securities until recovery as management now has the intent to exercise its put option during the period June 30, 2010 to July 3, 2012. As a result, the Company elected a one-time transfer of the auction rate securities from available-for-sale to trading in accordance with SFAS No. 115. Prior to its agreement with UBS, management's intent was to hold the auction rate securities until the earlier of anticipated recovery in market value or maturity. Upon transfer to trading securities, the Company immediately recognized a loss of $8.7 million, included in interest income for the amount of the unrealized loss not previously recognized in earnings. The Company will continue to recognize gains and losses in earnings approximating the changes in the fair value of the auction rate securities at each balance sheet date. These gains and losses are expected to be approximately offset by changes in the fair value of the put option.

5. Intangible Assets

The Company's intangible assets are comprised primarily of acquired core technology and customer relationships from the acquisition of Solexa and licensed technology from the Affymetrix settlement entered into on January 9, 2008. As a result of this settlement, the Company agreed, without admitting liability, to make a one-time payment to Affymetrix of $90.0 million. In return, Affymetrix agreed to dismiss with prejudice all lawsuits it had brought against the Company, and the Company agreed to dismiss with prejudice its counterclaims in the relevant lawsuits. Affymetrix also agreed not to sue the Company or its affiliates or customers for making, using or selling any of the Company's current products, evolutions of those products or services related to those products. In addition, Affymetrix agreed that, for four years, it will not sue the Company for making, using or selling the Company's products or services that are based on future technology developments. The covenant not to sue covers all fields other than photolithography, the process by which Affymetrix manufactures its arrays and a field in which the Company does not operate.

Of the total $90.0 million payment made on January 25, 2008, $36.0 million was recorded as licensed technology and classified as an intangible asset. The remaining $54.0 million was charged to expense during

the fourth quarter of 2007. This allocation was determined in accordance with SFAS No. 5, *Accounting for Contingencies*, and EITF 00-21 using the concepts of fair value based on the past and estimated future revenue streams related to the products covered by the patents previously under dispute. The value of the licensed technology is the benefit derived, calculated using estimated discounted cash flows and future revenue projections, from the perpetual covenant not to sue for damages related to the sale of the Company's current products. The Company utilized an annual discount rate of 9.25% when preparing this model. The effective life of the licensed technology extends through 2015, the final expiry date of all patents considered in valuing the intangible asset. The related amortization is based on the higher of the percentage of usage or the straight-line method. The percentage of usage was determined using actual and projected revenues generated from products covered by the patents previously under dispute.

Acquired core technology and customer relationships are being amortized on a straight-line basis over their effective useful lives of ten and three years, respectively. The amortization of the Company's intangible assets is excluded from cost of product revenue and is separately classified as amortization of intangible assets on the Company's consolidated statements of operations.

The following is a summary of the Company's amortizable intangible assets as of the respective balance sheet dates (in thousands):

	December 28, 2008			December 30, 2007		
	Gross Carrying Amount	Accumulated Amortization	Intangibles, Net	Gross Carrying Amount	Accumulated Amortization	Intangibles, Net
Licensed technology	$36,000	$ (7,788)	$28,212	$36,000	$ —	$36,000
Core technology	23,500	(4,504)	18,996	23,500	(2,154)	21,346
Customer relationships	900	(575)	325	900	(275)	625
License agreements	1,154	(932)	222	1,029	(884)	145
Total intangible assets, net	$61,554	$(13,799)	$47,755	$61,429	$(3,313)	$58,116

Amortization expense associated with the intangible assets was $10.4 million and $2.4 million for the years ended December 28, 2008 and December 30, 2007, respectively. There was no amortization of intangibles for the year ended January 1, 2006.

The estimated annual amortization of intangible assets for the next five years is shown in the following table (in thousands). Actual amortization expense to be reported in future periods could differ from these estimates as a result of acquisitions, divestitures, asset impairments and other factors.

2009	$ 6,749
2010	6,462
2011	6,425
2012	6,618
2013	6,518
Thereafter	14,983
Total	$47,755

6. Impairment of Manufacturing Equipment

During fiscal 2008, the Company implemented next-generation imaging and decoding systems to be used in manufacturing. These systems were developed to increase existing capacity and allow the Company to transition to the Infinium High-Density (HD) product line. As a result of this transition, the demand for products manufactured on the previous infrastructure was reduced and certain systems were no longer being

utilized. In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, a non-cash impairment charge of $4.1 million was recorded in the second quarter of fiscal 2008 for the excess machinery. This charge is included as a separate line item in the Company's consolidated statement of operations. There was no change to useful lives and related depreciation expense of the remaining assets as the Company believes these estimates are currently reflective of the period the assets will be used in operations.

7. Warranties

The Company generally provides a one-year warranty on sequencing, genotyping and gene expression systems. At the time revenue is recognized, the Company establishes an accrual for estimated warranty expenses associated with system sales. This expense is recorded as a component of cost of product revenue. Estimated warranty expenses associated with extended maintenance contracts are recorded as cost of revenue ratably over the term of the maintenance contract.

Changes in the Company's reserve for product warranties from January 1, 2006 through December 28, 2008 are as follows (in thousands):

Balance as of January 1, 2006	$ 751
Additions charged to cost of revenue	1,379
Repairs and replacements	(1,134)
Balance as of December 31, 2006	996
Additions charged to cost of revenue	4,939
Repairs and replacements	(2,219)
Balance as of December 30, 2007	3,716
Additions charged to cost of revenue	13,044
Repairs and replacements	(8,557)
Balance as of December 28, 2008	$ 8,203

8. Convertible Senior Notes

On February 16, 2007, the Company issued $400.0 million principal amount of 0.625% Convertible Senior Notes due 2014 (the Notes), which included the exercise of the initial purchasers' option to purchase up to an additional $50.0 million aggregate principal amount of Notes. The net proceeds from the offering, after deducting the initial purchasers' discount and offering expenses, were $390.3 million. The Company will 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 Company made interest payments of $1.3 million and $1.2 million on February 15, 2008 and August 15, 2008, respectively. The Notes mature on February 15, 2014.

The Notes will be convertible into cash and, if applicable, shares of the Company's common stock, $0.01 par value per share, based on a conversion rate, subject to adjustment, of 45.8058 shares per $1,000 principal amount of Notes (which represents a conversion price of $21.83 per share), only in the following circumstances and to the following extent: (1) during the five business-day period after any five consecutive trading period (the measurement period) in which the trading price per Note for each day of such measurement period was less than 97% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such day; (2) during any calendar quarter after the calendar quarter ending March 30, 2007, if the last reported sale price of the Company's common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the last trading day of the immediately

preceding calendar quarter exceeds 130% of the applicable conversion price in effect on the last trading day of the immediately preceding calendar quarter; (3) upon the occurrence of specified events; and (4) the Notes will be convertible at any time on or after November 15, 2013 through the third scheduled trading day immediately preceding the maturity date. The requirements of the second condition above were satisfied during the first, second and third quarters of 2008. Accordingly, the Company's outstanding convertible notes became convertible into cash and, if applicable, shares of common stock, during the period from, and including April 1, 2008 through, and including, December 31, 2008. During the fourth quarter of 2008, the requirements of this same condition were no longer satisfied, accordingly, the Notes will no longer be convertible during the period from, and including January 1, 2009 through, and including March 31, 2009 unless another conversion condition is satisfied during this period. Generally, upon conversion of a Note, the Company will pay the conversion value of the Note in cash, up to the principal amount of the Note. Any excess of the conversion value over the principal amount is payable in shares of the Company's common stock. As of December 28, 2008, the principal amount of these Notes was classified as current liabilities as the Notes were still convertible through December 31, 2008.

In connection with the offering of the Notes in February 2007, the Company entered into convertible note hedge transactions (the hedge) with the initial purchasers and/or their affiliates (the counterparties) entitling the Company to purchase up to 18,322,320 shares of the Company's common stock at a strike price of $21.83 per share, subject to adjustment. In addition, the Company sold to these counterparties warrants (the warrants) exercisable, on a cashless basis, for up to 18,322,320 shares of the Company's common stock at a strike price of $31.435 per share, subject to adjustment. The cost of the hedge that was not covered by the proceeds from the sale of the warrants was $46.6 million and was reflected as a reduction of additional paid-in capital. The hedge is expected to reduce the potential equity dilution upon conversion of the Notes to the extent the Company exercises the note hedges to purchase shares from the counterparties to deliver to converting noteholders. However, the warrants could have a dilutive effect on the Company's earnings per share to the extent that the price of the Company's common stock exceeds the strike price of the warrants on the exercise dates of the warrants, which occur during 2014, and the warrants are exercised.

9. Commitments

Operating Leases

The Company leases office and manufacturing facilities under various noncancellable operating lease agreements. Facilities leases generally provide for periodic rent increases, and many contain escalation clauses and renewal options. Certain leases require the Company to pay property taxes and routine maintenance. The Company is headquartered in San Diego, California and leases facilities in Hayward, California, the United Kingdom, The Netherlands, Japan, Singapore, Australia and China.

Annual future minimum payments under these operating leases as of December 28, 2008 were as follows (in thousands):

2009	$ 11,032
2010	11,122
2011	11,823
2012	11,920
2013	11,458
Thereafter	100,885
Total	$158,240

Rent expense, net of amortization of the deferred gain on sale of property, was $10.7 million, $7.7 million and $4.7 million for the years ended December 28, 2008, December 30, 2007 and December 31, 2006, respectively.

10. Stockholders' Equity

Common Stock

On July 22, 2008, the Company announced a two-for-one stock split in the form of a 100% stock dividend with a record date of September 10, 2008 and a distribution date of September 22, 2008. Share and per share amounts have been restated to reflect the stock split for all periods presented.

On August 12, 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 the Company of $342.6 million, after deducting underwriting discounts and commissions and offering expenses.

On December 28, 2008, the Company had 121,008,599 shares of common stock outstanding.

Stock Options

In June 2005, the stockholders of the Company approved the 2005 Stock and Incentive Plan (the 2005 Stock Plan). Upon adoption of the 2005 Stock Plan, issuance of options under the Company's existing 2000 Stock Plan ceased. Additionally, in connection with the acquisition of Solexa, the Company assumed stock options granted under the 2005 Solexa Equity Incentive Plan (the 2005 Solexa Equity Plan). The 2005 Stock Plan and the 2005 Solexa Equity Plan initially provided that an aggregate of up to 24,571,238 shares of the Company's common stock be reserved and available to be issued. The 2005 Stock Plan provides for an automatic annual increase in the shares reserved for issuance by the lesser of 5% of the outstanding shares of the Company's common stock on the last day of the immediately preceding fiscal year, 2,400,000 shares or such lesser amount as determined by the Company's board of directors. Additionally, during the Company's Annual Meeting of Stockholders held on May 16, 2008, the stockholders ratified an amendment to increase the maximum number of shares of common stock authorized for issuance under the 2005 Stock Plan by 2,400,000 shares. As of December 28, 2008, options to purchase 6,777,903 shares remained available for future grant under the 2005 Stock Plan and 2005 Solexa Equity Plan.

On January 29, 2008, the Company's board of directors approved the New Hire Stock and Incentive Plan, which provides for the issuance of options and shares of restricted stock to newly hired employees. There is no set number of shares reserved for issuance under this Plan.

The Company's stock option activity under all stock option plans from January 1, 2006 through December 28, 2008 is as follows:

	Options	Weighted-Average Exercise Price
Outstanding at January 1, 2006	14,650,862	$ 3.98
Granted	5,242,100	$13.62
Exercised	(2,546,238)	$ 3.64
Cancelled	(628,484)	$ 6.22
Outstanding at December 31, 2006	16,718,240	$ 6.97
Options assumed through business combination	2,848,664	$10.69
Granted	7,569,016	$20.32
Exercised	(4,358,572)	$ 6.03
Cancelled	(1,929,480)	$11.19
Outstanding at December 30, 2007	20,847,868	$12.13
Granted	3,091,108	$34.23
Exercised	(4,571,855)	$ 8.52
Cancelled	(1,232,917)	$19.93
Outstanding at December 28, 2008	18,134,204	$16.26

The following is a further breakdown of the options outstanding as of December 28, 2008:

Range of Exercise Prices	Options Outstanding	Weighted Average Remaining Life in Years	Weighted Average Exercise Price	Options Exercisable	Weighted Average Exercise Price of Options Exercisable
$0.05-3.95	2,195,626	4.14	$ 2.94	1,706,512	$ 2.91
$3.97-4.85	1,813,554	5.38	$ 4.34	1,023,641	$ 4.37
$4.94-10.49	2,907,761	6.27	$ 8.44	1,496,162	$ 8.28
$10.66-16.19	1,890,491	7.35	$13.79	787,957	$13.50
$16.27-19.61	2,619,364	7.81	$18.24	893,047	$18.24
$19.71-20.04	2,227,638	7.22	$20.03	701,138	$20.04
$20.12-29.78	1,819,970	8.80	$24.51	336,421	$24.62
$30.09-33.80	1,840,600	9.12	$32.61	218,044	$32.51
$34.43-42.02	589,200	9.33	$38.51	5,000	$41.75
$44.38	230,000	9.60	$44.38	—	$ —
$0.05-44.38	18,134,204	7.06	$16.26	7,167,922	$10.94

The weighted average remaining life in years of options exercisable is 6.37 years as of December 28, 2008.

The aggregate intrinsic value of options outstanding and options exercisable as of December 28, 2008 was $192.4 million and $105.4 million, respectively. Aggregate intrinsic value represents the difference between the Company's closing stock price per share on the last trading day of the fiscal period, which was $25.36 as of December 26, 2008, and the exercise price multiplied by the number of options outstanding. Total intrinsic value of options exercised was $136.6 million, $72.1 million and $34.0 million for the years ended December 28, 2008, December 30, 2007 and December 31, 2006, respectively.

Employee Stock Purchase Plan

In February 2000, the board of directors and stockholders adopted the 2000 ESPP. A total of 15,467,426 shares of the Company's common stock have been reserved for issuance under the ESPP. The ESPP permits eligible employees to purchase common stock at a discount, but only through payroll deductions, during defined offering periods.

The price at which stock is purchased under the ESPP is equal to 85% of the fair market value of the common stock on the first or last day of the offering period, whichever is lower. The initial offering period commenced in July 2000. In addition, beginning with fiscal 2001, the ESPP provides for annual increases of shares available for issuance by the lesser of 3% of the number of outstanding shares of the Company's common stock on the last day of the immediately preceding fiscal year, 3,000,000 shares or such lesser amount as determined by the Company's board of directors. Shares totaling 276,198, 266,962 and 532,788 were issued under the ESPP during fiscal 2008, 2007 and 2006, respectively. As of December 28, 2008, there were 10,794,162 shares available for issuance under the ESPP.

Restricted Stock Units

In 2007 the Company began granting restricted stock units pursuant to its 2005 Stock and Incentive Plan as part of its periodic employee equity compensation review program. Restricted stock units are share awards that, upon vesting, will deliver to the holder shares of the Company's common stock. Restricted stock units granted during 2007 vest over four years as follows: 15% vest on the first and second anniversaries of the grant date, 30% vest on the third anniversary of the grant date and 40% vest on the fourth anniversary of the grant date. Effective January 2008, the Company changed the vesting schedule for grants of new restricted stock units. Currently, restricted stock units vest 15% on the first anniversary of the grant date, 20% on the second anniversary of the grant date, 30% on the third anniversary of the grant date and 35% on the fourth anniversary of the grant date.

A summary of the Company's restricted stock unit activity and related information in the fiscal year ended December 28, 2008 is as follows:

	Restricted Stock Units(1)
Outstanding at December 31, 2006	—
Awarded	395,500
Vested	—
Cancelled	(1,000)
Outstanding at December 30, 2007	394,500
Awarded	1,287,504
Vested	(55,638)
Cancelled	(47,090)
Outstanding at December 28, 2008	1,579,276

(1) Each stock unit represents the fair market value of one share of common stock.

The weighted average grant-date fair value per share for the restricted stock units was $34.53 and $25.69 for the years ended December 28, 2008 and December 30, 2007, respectively. No restricted stock units were outstanding as of December 31, 2006.

Based on the closing price per share of the Company's common stock of $25.36 on December 26, 2008, the total pretax intrinsic value of all outstanding restricted stock units on that date was $40.0 million.

Warrants

In conjunction with its acquisition of Solexa, Inc. on January 26, 2007, the Company assumed 4,489,686 warrants issued by Solexa prior to the acquisition. During the year ended December 28, 2008, there were 401,362 warrants exercised, resulting in cash proceeds to the Company of $3.0 million. As of December 28, 2008, 252,164 of the assumed warrants had expired.

A summary of all warrants outstanding as of December 28, 2008 is as follows:

Number of Shares	Exercise Price	Expiration Date
238,510	$ 7.27	4/25/2010
864,040	$ 7.27	7/12/2010
809,246	$10.91	11/23/2010
1,125,734	$10.91	1/19/2011
18,322,320(1)	$31.44	2/15/2014
21,359,850		

(1) Represents warrants sold in connection with the offering of the Company's Convertible Senior Notes (See Note 8).

Treasury Stock

In connection with its issuance of $400.0 million principal amount of 0.625% Convertible Senior Notes due 2014 on February 16, 2007, the Company repurchased 11.6 million shares of its outstanding common stock for $201.6 million in privately negotiated transactions concurrently with the offering.

On February 20, 2007, the Company executed a Rule 10b5-1 trading plan to repurchase up to $75.0 million of its outstanding common stock over a period of six months. The Company repurchased 3.2 million shares of its common stock under this plan for $50.0 million. As of December 30, 2007, this plan had expired.

On October 23, 2008, the board of directors authorized a $120.0 million stock repurchase program. As of December 28, 2008 the Company had repurchased 3.1 million shares for $70.8 million under the plan in open-market transactions or through privately negotiated transactions in compliance with Rule 10b-18 under the Securities Exchange Act of 1934. As of December 28, 2008, $49.2 million remains authorized for future repurchases under the program.

Stockholder Rights Plan

On May 3, 2001, the board of directors of the Company declared a dividend of one preferred share purchase right (a Right) for each outstanding share of common stock of the Company. The dividend was payable on May 14, 2001 (the Record Date) to the stockholders of record on that date. Each Right entitles the registered holder to purchase from the Company one unit consisting of one-thousandth of a share of its Series A Junior Participating Preferred Stock at a price of $100 per unit. The Rights will be exercisable if a person or group hereafter acquires beneficial ownership of 15% or more of the outstanding common stock of the Company or announces an offer for 15% or more of the outstanding common stock. If a person or group acquires 15% or more of the outstanding common stock of the Company, each Right will entitle its holder to purchase, at the exercise price of the right, a number of shares of common stock having a market value of two times the exercise price of the right. If the Company is acquired in a merger or other business combination transaction after a person acquires 15% or more of the Company's common stock, each Right will entitle its holder to purchase, at the Right's then-current exercise price, a number of common shares of the acquiring

company which at the time of such transaction have a market value of two times the exercise price of the right. The board of directors will be entitled to redeem the Rights at a price of $0.01 per Right at any time before any such person acquires beneficial ownership of 15% or more of the outstanding common stock. The rights expire on May 14, 2011 unless such date is extended or the rights are earlier redeemed or exchanged by the Company.

11. Litigation Settlements

In the recent past, the Company incurred substantial costs in defending against patent infringement claims and expects, going forward, to devote substantial financial and managerial resources to protect the Company's intellectual property and to defend against any future claims asserted against the Company. From time to time, the Company may also be parties to other litigation in the ordinary course of business. While the results of any litigation are uncertain, management does not believe the ultimate resolution of its legal matters will result in a material adverse impact to the Company.

Applied Biosystems Litigation

On December 26, 2006, Applied Biosystems Inc. (Applied Biosystems), formerly known as Applera Corporation (currently known as Applied Biosystems LLC, a wholly owned subsidiary of Life Technologies Corporation), filed suit in California Superior Court, Santa Clara County, against Solexa (which was acquired by the Company on January 26, 2007). This State Court action related to the ownership of several patents assigned in 1995 to Solexa's predecessor company (Lynx Therapeutics) by a former employee (Dr. Stephen Macevicz), who is the inventor of these patents and is named as a co-defendant in the suit. The Macevicz patents are directed to methods for sequencing DNA (US Pat. Nos. 5,750,341 and 6,306,597) using successive rounds of oligonucleotide probe ligation (sequencing-by-ligation), and to a probe (5,969,119) used in connection with these sequencing methods. Lynx was originally a unit of Applied Biosystems but was spun out in 1992. On May 31, 2007, Applied Biosystems filed a second suit, this time against the Company, in the U.S. District Court for the Northern District of California. This second suit sought a declaratory judgment of non-infringement of the Macevicz patents that were the subject of the State Court action mentioned above. Both suits were later consolidated in the U.S. District Court for the Northern District of California, San Francisco Division. By these consolidated actions, Applied Biosystems was seeking ownership of the three Macevicz patents, unspecified costs and damages, and a declaration of non-infringement and invalidity of these patents. Applied Biosystems was not asserting any claim for patent infringement against the Company.

On January 5, 2009, the case went to trial in two phases. The first phase addressed the determination of ownership of the patents-in-suit, and the second phase addressed whether these patents were infringed and valid. On January 14, 2009, at the end of the first phase, a federal jury determined that Solexa was the rightful owner of all three Macevicz patents. On January 27, 2009, the same jury found that Applied Biosystems did not infringe the '119 probe patent, and that the '119 patent was valid. In August 2008, the court had ruled that Applied Biosystems' two-base system did not infringe the '341 and '597 patents. Prior to the jury finding of non-infringement of the '119 patent, Applied Biosystems conceded that its one-base system infringed claim 1 of the '597 patent and Solexa conceded invalidity of that same claim under the court's construction of that claim. Both parties reserved the right to appeal the court's construction of claim 1 of the '597 patent, among other things.

The Company's Genome Analyzer products use a different technology, called Sequencing-by-Synthesis (SBS), which is not covered by any of the Macevicz patents. In addition, the Company has no plans to use any of the Sequencing-by-Ligation technologies covered by these patents.

12. Income Taxes

The income (loss) before income taxes summarized by region is as follows (in thousands):

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
United States	$64,424	$ 58,445	$42,612
Foreign	26,482	(347,230)	8
Total income (loss) before income taxes	$90,906	$(288,785)	$42,620

The provision (benefit) for income taxes consists of the following (in thousands):

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
Current:			
Federal	$13,868	$ 18,564	$1,125
State	2,134	4,801	1,177
Foreign	5,042	(2,172)	903
Total current provision	21,044	21,193	3,205
Deferred:			
Federal	17,656	(20,254)	—
State	2,103	(11,622)	—
Foreign	(374)	257	(553)
Total deferred provision	19,385	(31,619)	(553)
Total tax provision (benefit)	$40,429	$(10,426)	$2,652

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

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
Tax at federal statutory rate	$31,817	$(101,075)	$ 14,945
State, net of federal benefit	4,242	(9,672)	1,963
Alternative minimum tax	—	—	1,125
Research and other credits	(4,060)	(3,118)	(3,096)
Acquired in-process research & development	9,508	116,916	—
Adjustments to deferred tax balances	—	—	(3,258)
Change in valuation allowance	(149)	(17,125)	(10,038)
Permanent differences	1,449	653	573
Foreign rate adjustments	(2,619)	3,160	430
Other	241	(165)	8
Total tax provision (benefit)	$40,429	$ (10,426)	$ 2,652

Significant components of the Company's deferred tax assets and liabilities are as follows (in thousands):

	December 28, 2008	December 30, 2007
Deferred tax assets:		
Net operating losses	$ 18,557	$ 34,277
Tax credits	19,139	11,465
Accrued litigation settlements	—	21,427
Other accruals and reserves	11,341	6,326
Stock compensation	15,962	8,166
Convertible debt	42,456	49,137
Other	13,268	12,322
Total deferred tax assets	120,723	143,120
Valuation allowance on deferred tax assets	(15,200)	(28,343)
Net deferred tax assets	105,523	114,777
Deferred tax liabilities:		
Purchased intangible amortization	(5,985)	(7,084)
Accrued litigation settlements	(11,084)	—
Other	(1,498)	(514)
Total deferred tax liabilities	(18,567)	(7,598)
Net deferred tax assets	$ 86,956	$107,179

A valuation allowance is established when it is more likely than not the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis, and includes a review of all available positive and negative evidence. Based on the available evidence as of December 28, 2008, the Company was not able to conclude it is more likely than not certain U.S. and foreign deferred tax assets will be realized. Therefore, the Company recorded a valuation allowance of $2.8 million and $12.4 million against certain U.S. and foreign deferred tax assets, respectively. At December 30, 2007, the Company had concluded that it is more likely than not that a significant portion of its deferred tax assets will be realized and, accordingly the Company released a portion of its valuation allowance, $17.1 million of which was recorded as a reduction to the tax provision.

As of December 28, 2008, the Company had net operating loss carryforwards for federal and state tax purposes of $87.7 million and $148.3 million, respectively, which begin to expire in 2025 and 2013, respectively, unless previously utilized. In addition, the Company also had U.S. federal and state research and development tax credit carryforwards of $12.6 million and $13.9 million, respectively, which begin to expire in 2018 and 2019, respectively, unless previously utilized.

As of December 28, 2008, the valuation allowance includes $14.0 million of pre-acquisition deferred tax assets of Solexa. Prior to the adoption of SFAS 141(R) to the extent any of these assets were recognized, the adjustment would have been applied first to reduce to zero any goodwill related to the acquisition, and then an a reduction to the tax provision.

Pursuant to Section 382 and 383 of the Internal Revenue Code, utilization of the Company's net operating losses and credits may be subject to annual limitations in the event of any significant future changes in its ownership structure. These annual limitations may result in the expiration of net operating losses and credits prior to utilization. Previous limitations due to Section 382 and 383 have been reflected in the deferred tax assets as of December 28, 2008.

Due to the adoption of SFAS No. 123R, the Company recognizes excess tax benefits associated with share-based compensation to stockholders' equity only when realized. When assessing whether excess tax benefits relating to share-based compensation have been realized, the Company follows the with-and-without approach excluding any indirect effects of the excess tax deductions. Under this approach, excess tax benefits related to share-based compensation are not deemed to be realized until after the utilization of all other tax benefits available to the Company. During 2008, the Company realized $18.5 million of such excess tax benefits, and accordingly recorded a corresponding credit to additional paid in capital. As of December 28, 2008, the Company has $36.5 million of unrealized excess tax benefits associated with share-based compensation. These tax benefits will be accounted for as a credit to additional paid-in capital, if and when realized, rather than a reduction of the tax provision.

The Company's manufacturing operations in Singapore operate under various tax holidays and incentives that begin to expire in 2018. For the year ended December 28, 2008, these tax holidays and incentives resulted in an approximate $1.9 million decrease to the tax provision and an increase to net income per diluted share of $0.01.

Residual U.S. income taxes have not been provided on $14.7 million of undistributed earnings of foreign subsidiaries as of December 28, 2008, since the earnings are considered to be indefinitely invested in the operations of such subsidiaries.

Effective January 1, 2007, the Company adopted FIN No. 48, *Accounting for Uncertainty in Income Taxes — an interpretation of FASB Statement No. 109*, which clarifies the accounting for uncertainty in tax positions. FIN No. 48 requires recognition of the impact of a tax position in the Company's 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. The adoption of FIN No. 48 did not result in an adjustment to the Company's opening stockholders' equity since there was no cumulative effect from the change in accounting principle.

The following table summarizes the gross amount of the Company's uncertain tax positions (in thousands):

Balance at December 31, 2007	$21,376
Increases related to current year tax positions	2,402
Balance at December 28, 2008	$23,778

As of December 28, 2008, $7.7 million of the Company's uncertain tax positions would reduce the Company's annual effective tax rate, if recognized.

The Company does not expect its uncertain tax positions to change significantly over the next 12 months. Any interest and penalties related to uncertain tax positions will be reflected in income tax expense. As of December 28, 2008, no interest or penalties have been accrued related to the Company's uncertain tax positions. Tax years 1992 to 2008 remain subject to future examination by the major tax jurisdictions in which the Company is subject to tax.

13. Employee Benefit Plans

Retirement Plan

The Company has a 401(k) savings plan covering substantially all of its employees. Company contributions to the plan are discretionary. During the years ended December 28, 2008, December 30, 2007 and December 31, 2006, the Company made matching contributions of $2.6 million, $1.4 million and $0.4 million, respectively.

Executive Deferred Compensation Plan

For the Company's executives and members of the board of directors, the Company adopted the Illumina, Inc. Deferred Compensation Plan (the Plan) that became effective January 1, 2008. Eligible participants can contribute up to 80% of their base salary and 100% of all other forms of compensation into the Plan, including bonus, commission and director fees. The Company has agreed to credit the participants' contributions with earnings that reflect the performance of certain independent investment funds. On a discretionary basis, the Company may also make employer contributions to participant accounts in any amount determined by the Company. The vesting schedules of employer contributions are at the sole discretion of the Compensation Committee. However, all employer contributions shall become 100% vested upon the occurrence of the participant's disability, death or retirement or a change in control of the Company. The benefits under this plan are unsecured. Participants are generally eligible to receive payment of their vested benefit at the end of their elected deferral period or after termination of their employment with the Company for any reason or at a later date to comply with the restrictions of Section 409A. As of December 28, 2008, no employer contributions were made to the Plan.

In January 2008, the Company also established a rabbi trust for the benefit of its directors and executives under the Plan. In accordance with FASB Interpretation (FIN) No. 46, *Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51*, and EITF 97-14, *Accounting for Deferred Compensation Arrangements Where Amounts Earned Are Held in a Rabbi Trust and Invested*, the Company has included the assets of the rabbi trust in its consolidated balance sheet since the trust's inception. As of December 28, 2008, the assets of the trust and liabilities of the Company were $1.3 million. The assets and liabilities are classified as other assets and accrued liabilities, respectively, on the Company's balance sheet as of December 28, 2008. Changes in the values of the assets held by the rabbi trust accrue to the Company.

14. Segment Information, Geographic Data and Significant Customers

During the first quarter of 2008, the Company reorganized its operating structure into a newly created Life Sciences Business Unit, which includes all products and services related to the research market, namely the BeadArray, BeadXpress and Sequencing product lines. The Company also created a Diagnostics Business Unit to focus on the emerging opportunity in molecular diagnostics. For the year ended December 28, 2008, the Company had limited activity related to the Diagnostics Business Unit, and operating results were reported on an aggregate basis to the chief operating decision maker of the Company, the chief executive officer. In accordance with SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*, the Company operated in one reportable segment for the year ended December 28, 2008.

The Company had revenue in the following regions for the years ended December 28, 2008, December 30, 2007 and December 31, 2006 (in thousands):

	Year Ended December 28, 2008	Year Ended December 30, 2007	Year Ended December 31, 2006
United States	$280,064	$207,692	$103,043
United Kingdom	67,973	34,196	22,840
Other European countries	127,397	75,360	32,600
Asia-Pacific	72,740	35,155	15,070
Other markets	25,051	14,396	11,033
Total	$573,225	$366,799	$184,586

Net revenues are attributable to geographic areas based on the region of destination.

The majority of our product sales consist of consumables and instruments. For the years ended December 28, 2008, December 30, 2007, and December 31, 2006, consumable sales represented 58%, 53% and 54%, respectively, of total revenues and instrument sales comprised 32%, 33% and 23%, respectively, of total revenues. Our customers include leading genomic research centers, pharmaceutical companies, academic institutions, clinical research organizations and biotechnology companies. The Company had no customers that provided more than 10% of total revenue in the years ended December 28, 2008, December 30, 2007 and December 31, 2006.

Net long-lived assets exclude goodwill and other intangible assets since they are not allocated on a geographic basis. The Company had net long-lived assets consisting of property and equipment in the following regions as of December 28, 2008 and December 30, 2007 (in thousands):

	Year Ended December 28, 2008	Year Ended December 30, 2007
United States	$65,630	$40,972
United Kingdom	9,849	4,809
Other European countries	1,055	230
Singapore	12,586	—
Other Asia-Pacific countries	316	263
Total	$89,436	$46,274

15. Quarterly Financial Information (unaudited)

The following financial information reflects all normal recurring adjustments, except as noted below, which are, in the opinion of management, necessary for a fair statement of the results and cash flows of interim periods. Summarized quarterly data for fiscal 2008 and 2007 are as follows (in thousands except per share data):

	First Quarter(1)	Second Quarter	Third Quarter	Fourth Quarter
2008:				
Total revenue	$ 121,861	$140,177	$ 150,260	$160,927
Total cost of revenue (excluding impairment of manufacturing equipment and amortization of intangible assets)	46,081	50,459	54,430	54,654
Net income (loss)	13,428	15,398	(7,288)	28,939
Net income (loss) per share, basic	0.12	0.14	(0.06)	0.24
Net income (loss) per share, diluted	0.11	0.12	(0.06)	0.22
Net cash (used in) provided by operating activities	(26,755)	37,222	27,298	50,117
Net cash used in investing activities	(44,123)	(37,384)	(164,520)	(31,222)
Net cash provided by (used in) financing activities	15,979	14,171	356,936	(49,414)
2007:				
Total revenue	$ 72,150	$ 84,535	$ 97,510	$112,604
Total cost of revenue (excluding amortization of intangible assets)	25,120	30,141	37,078	40,097
Net income (loss)	(298,076)	9,264	14,503	(4,050)
Net income (loss) per share, basic	(2.79)	0.09	0.14	(0.04)
Net income (loss) per share, diluted	(2.79)	0.08	0.12	(0.04)
Net cash provided by operating activities	14,643	24,482	5,316	11,853
Net cash used in investing activities	(34,410)	(69,514)	(32,143)	68,381
Net cash provided by financing activities	104,950	2,464	10,433	30,445

(1) The Company reclassified $36.0 million from cash provided by operating activities to cash used in investing activities in the first quarter of 2008 for the portion of the litigation payment relating to intangible assets.

SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

	Allowance for Doubtful Accounts	Reserve for Inventory
	(In thousands)	
Balance as of January 1, 2006	$ 313	$ 1,095
Charged to expense	179	127
Utilizations	(154)	(372)
Balance as of December 31, 2006	338	850
Acquired through business acquisition	—	439
Charged to expense	237	1,863
Utilizations	(35)	(1,063)
Balance as of December 30, 2007	540	2,089
Charged to expense	893	7,154
Utilizations	(295)	(2,812)
Balance as of December 28, 2008	$1,138	$ 6,431