2010 LETTER TO SHAREHOLDERS

Redefining the trajectory of sequencing.

illumina®

Dear Fellow Shareholders:

2010 was a transformational year for Illumina. We launched the company's most successful product to date, the HiSeq™ 2000 system. We generated over $1 billion in orders, ending the year with the largest backlog in the company's history. Our financial performance was stronger than ever, with record revenues, earnings, and cash flows. Equally important, our innovative product portfolio enabled us to maintain or extend our market share in our two core markets: next-generation sequencing and microarrays.

Illumina's goal is to apply innovative technologies and revolutionary assays to the analysis of genetic variation and function, making studies possible that were not even imaginable just a few years ago. Our accomplishments in 2010 would not have been possible without a stream of new product introductions that dramatically altered the economics of genetic research. Our ability to innovate continues to open new and broader markets in the fields of genetic analysis. During 2010, we launched over 20 new products or product upgrades. These products generated approximately 35% of our 2010 revenue. Additionally, more than 2,000 peer-reviewed publications were enabled by Illumina technologies in 2010 alone.

Our ultimate goal is to revolutionize the management of human health. By enabling genetic analysis to be performed quickly, accurately, and in a more cost-effective manner, our products make genetic information more accessible, allowing researchers to gain a deeper understanding of the molecular biology of disease. We believe that in the not too distant future, the elucidation of an individual's unique genetic makeup will become an integral component in the prevention and treatment of disease. Through our innovative portfolio of technologies, Illumina is working to accelerate this vision of personalized healthcare.

2010 Achievements

In 2010, we achieved record financial results driven by the success of the HiSeq 2000 system coupled with growth in our microarray business. We grew total revenue by 35% to $903 million while delivering $1.06 of earnings per share. We generated $273 million in operating cash flow and $223 million in free cash flow, excluding $50 million in capital expenditures.

During the year we introduced eight new Illumina BeadChips, including our flagship whole-genome BeadChip, the HumanOmni2.5. This four-sample microarray has approximately 2.5 million markers per sample and includes significant rare variant content derived from the 1000 Genomes Project, an international research effort to establish the most detailed catalog of human genetic variation. We also launched the HumanOmniExpress BeadChip, a 12-sample microarray with over 700,000 markers per sample, and the HumanOmniExpress+ BeadChip, an 8-sample microarray that incorporates up to 200,000 custom variants per sample with the content on the HumanOmniExpress.

Shortly after the close of 2010, we launched the next generation of iSelect® custom genotyping products that allow researchers to design custom arrays containing from 3,000 up to 1 million markers, with the flexibility to add supplemental content to their array designs. The additional marker and add-on content capabilities enable researchers to draw on the latest advances from genome-wide association studies (GWAS), next-generation whole-genome sequencing, and exome sequencing studies for variant confirmation, fine mapping, and target validation.

During 2010 we also launched the HiScan™SQ system, the world's first instrument to integrate next-generation sequencing with genotyping and gene expression microarrays. The HiScanSQ gives researchers the flexibility to use both next-generation sequencing and microarray technology to carry out their experimental design, all in one system.

Our sequencing business experienced another exceptional year, driven by the launch of the HiSeq 2000 system. By integrating Illumina's cutting-edge sequencing by synthesis (SBS) chemistry with state-of-the-art system design and optics, the HiSeq 2000 provides industry-

leading throughput of over 200 gigabases (Gb) of sequence data per run and can sequence a whole human genome for less than $10,000. Most customers running the platform have achieved throughput levels much higher than this, and, in fact, often exceed 300 Gb per run. Early in 2011, we announced software and chemistry enhancements to the HiSeq 2000 that we expect to ship in the first half of the year that will enable our customers to generate up to 600 Gb of data per run on the system. These enhancements will lower the reagent cost of whole human genome sequencing well below $5,000, bringing us considerably closer to enabling routine sequencing of whole-genome samples in complex disease research.

The rapidly increasing output of the HiSeq 2000 system and the commensurate reduction in the price of sequencing have accelerated demand in the research community for whole human genomes. In order to catalyze the service side of this market, we launched the Illumina Genome Network, a global partnership linking researchers interested in conducting large-scale whole-genome sequencing with leading institutions that can perform these projects using Illumina technologies. During 2010, we received a multi-hundred genome order from a major pharmaceutical company and at year end had over a 1,000 genomes in backlog from a wide range of customers.

In January 2011, we announced the MiSeq™ system, a low-cost personal sequencing system capable of going from purified DNA to analyzed data in as few as 8 hours, or generating 1.5 Gb per run in just over a day. The MiSeq system's compact footprint of approximately two feet square, intuitive user interface, simple workflow, and low capital and run price will enable applications such as amplicon sequencing, clone checking, small genome sequencing, ChIP-Seq, and RNA-Seq, all with a single, integrated instrument and at a fraction of current costs and time.

Because the MiSeq system uses the same core TruSeq™ reagents that enable the HiSeq platform, many of the software and chemistry advances made on the HiSeq system can be directly imported to improve MiSeq performance. Not only does this enable a scalability pathway to the MiSeq system, it also provides researchers the ability to develop applications on one platform and extend to the other platform depending upon the end user objective. Nowhere do we see this relationship more compelling than in clinical research and, ultimately, molecular diagnostics, where, for example, clinical applications developed and validated on the HiSeq platform can be deployed in the field to a lower cost MiSeq instrument.

Investing in Our Future Growth

In order to remain competitive, sustain our rapid growth, and take full advantage of the many exciting global market opportunities on the horizon, we must make substantial investments in our people, infrastructure, and research and development (R&D). During 2010 we added over 300 talented people to the Illumina team, including new senior leadership to oversee critical components of our business. Alex Dickson joined Illumina in April of 2010 as Senior Vice President of Polymerase Chain Reaction (PCR) Solutions as part of our acquisition of Helixis, and will oversee the development of our PCR business. Nick Naclerio joined Illumina in July as Senior Vice President of Corporate Development. He brings to Illumina an impressive track record of building successful businesses and commercializing promising scientific and technological innovations.

We also made significant investments in our global facilities. Our most notable additions were in the Netherlands, where we expanded our European distribution center approximately four-fold, and in Singapore, where we added roughly 25,000 square feet of manufacturing space. These additions will allow us to better serve our expanding customer base while realizing meaningful cost savings.

We grew investment in R&D this year by over 10% to support the innovative product development that has enabled us to become a market leader in our core markets. R&D investment is our engine of innovation and is responsible for such revolutionary products as the HiSeq 2000 and MiSeq systems, the HumanOmni2.5 BeadChip, and our next-generation of iSelect custom genotyping products.

In April, we completed the acquisition of privately held Helixis, the developer of a low-cost real-time PCR technology, and within four months we

launched the Eco™ Real-Time PCR System. Entry into the PCR market has furthered our goal of providing researchers with a broad spectrum of innovative tools for genetic analysis. The Eco system addresses a variety of markets—such as agriculture, forensics, food testing, diagnostics, and clinical applications—that rely on low-multiplex technologies for high-volume low-cost screening applications. With the launch of the Eco system, Illumina became the only life sciences company to offer a full range of systems that span the range of genomic complexity, ranging from whole-genome sequencing to array to RT-PCR–based applications.

In January 2011, we acquired Epicentre Biotechnologies, a leading provider of nucleic acid sample preparation reagents and specialty enzymes that are used broadly across Illumina's sequencing and microarray portfolio. A key Epicentre product is the Nextera™ library prep assay, which provides a step-change improvement in library prep. With the Nextera assay, we're now able to reduce our industry-leading workflow from twelve hours and nine steps to two hours and four steps.

Opportunities on the Horizon

Back in early 2007, we accomplished what was then a major milestone in our company's history: achieving more than 1 Gb of high-quality data per run on our high-throughput Genome Analyzer™ sequencing instrument. During the past four years we have delivered an unprecedented pace of innovation, increasing data per run to over 600 Gb and lowering the cost of sequencing whole human genomes to less than $5,000 in reagent costs. The exponential improvement in the economics of genetic research has resulted in a corresponding explosion of demand by researchers to interrogate genetic samples. We expect this trend to continue as far out as we are able to model. As the cost of sequencing decreases, the demand for genetic information is essentially limitless and the markets for our products will continue to expand.

On the array side, our business is stable and continues to demonstrate a valuable and complimentary relationship to our sequencing portfolio. This year we will launch the HumanOmni5 BeadChip, which will contain up to 5 million markers per sample, including the majority of rare variant content from the 1000 Genomes Project. We continue to believe that rare variant–based discovery will renew the growth of GWAS in the back half of 2011 as we see results of ongoing proof-of-principle studies and launch our HumanOmni5 BeadChip.

Over the longer term, we believe whole human genome sequencing will play a key role in healthcare by enabling the development of personalized medicine and other therapies, particularly in cancer. Early discoveries emerging from global research suggest that whole-genome sequencing is perhaps the most powerful tool available to determine the mechanistic pathways of cancer. By understanding the genetics of these affected pathways, we believe that one day physicians will be able to routinely monitor cancers via whole-genome sequencing and prescribe treatments that target mutations specific to an individual's cancer—the ultimate embodiment of personalized medicine.

In the near future, quantifying an individual's genetic predisposition to disease will allow their physician to perform routine screening and enable early diagnosis. Determining an individual's response to a therapeutic by understanding their genome will prevent adverse reactions and increase drug efficacy. We believe that one day, each individual will carry their genetic information alongside their electronic medical records so that these benefits of genetic information will help to improve human health and eliminate extraneous cost from our healthcare system.

During 2010, we made significant progress in making the individual's genome more accessible through our Individual Genome Sequencing service. We lowered the price of this service from $48,000 to $19,500 per genome, or $14,500 for groups of 5 or more participants using the same physician. For individuals whose physicians have determined that whole-genome sequencing could provide potential direct clinical value in light of their serious medical conditions, we set a price of $9,500 per genome. To date we have sequenced dozens of genomes under this service and patients have received approval for insurance reimbursement in two separate cases. As the cost of sequencing continues to decline, we expect the market for individual genomes to continue to expand and present Illumina with a significant opportunity.

In addition to the opportunities in human health and genetics, Illumina will continue to actively pursue opportunities in the plant and animal market. The same sequencing and microarray solutions that are helping to advance personalized human medicine are enabling researchers to improve breeding practices for food crops and animals. We generated over $115 million in agriculture and livestock related orders in 2010, and expect to see continued growth in this area as the cost of genetic analysis declines further.

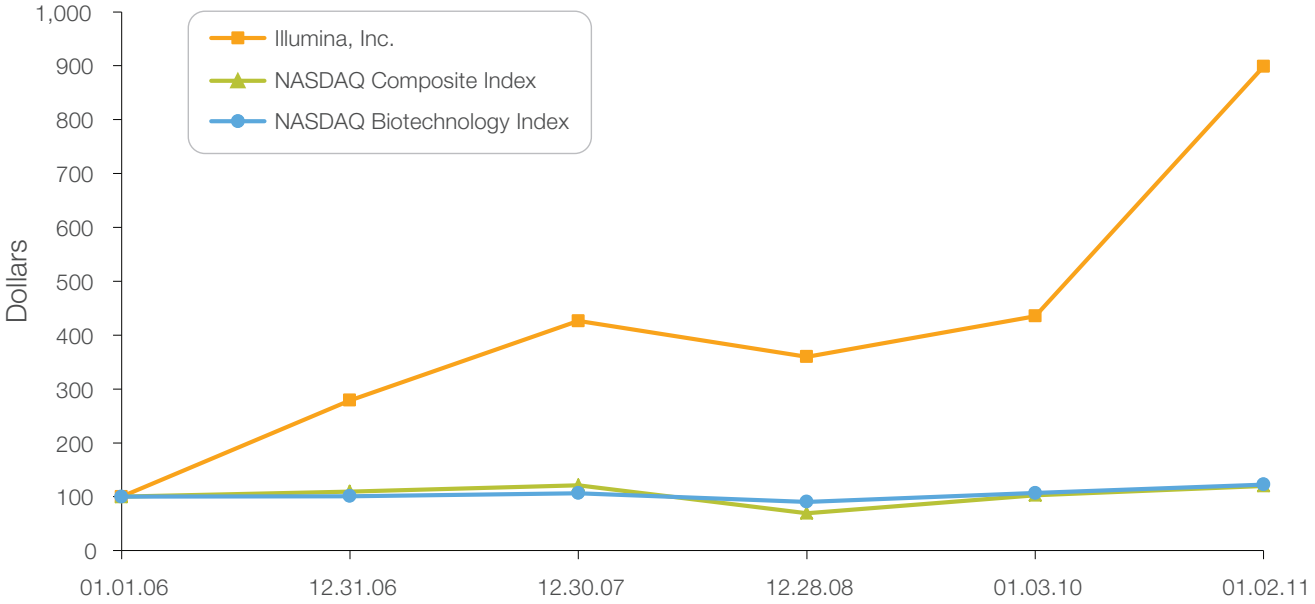
None of Illumina's achievements is the result of individual efforts; rather, they are the sum of an extraordinary level of passion, motivation, and collaboration by more than 2,000 dedicated employees across the globe. I would like to thank my incredibly talented colleagues who make Illumina the unique company it is. Already, 2011 is shaping up to be another strong year of innovation, growth, and success. I also want to thank the Board of Directors for their extraordinary level of commitment to this company and its future. Together, we'll ensure that Illumina continues to play a central role in the improvement of healthcare, agriculture, and science, for the benefit of people everywhere.

Best regards,

Jay T. Flatley
President and Chief Executive Officer

illumina®

Compare 5-Year Cumulative Total Return Among Illumina, Inc., NASDAQ Composite Index and NASDAQ Biotechnology Index



The graph depicted above shows a comparison of cumulative total stockholder returns for our common stock, the NASDAQ Composite Index and the NASDAQ Biotechnology Index, from January 1, 2006 through January 2, 2011. The graph assumes that $100 was invested on January 1, 2006 in our common stock and in each index. 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.

corporate information

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FORM 10-K

The Company's Form 10-K can be found on the Investor Relations website in the "financial reports" section at: http://investor.illumina.com/

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ANNUAL MEETING

The Company's 2011 Annual Meeting will be hosted live via the Internet only at 9:00 a.m. PDT on May 10, 2011. Any stockholder can listen to the meeting and participate live via the Internet at www.virtualshareholdermeeting.com/ILMN2011.

SELECTED COMMON STOCK DATA

The Company's common stock, par value $0.01, has been traded under the symbol ILMN since July 28, 2000 on The NASDAQ Global Select Market.

USE OF FORWARD LOOKING STATEMENTS

This letter contains projections, information about our financial outlook, and other forward-looking statements that involve risks and uncertainties. These forward-looking statements are based on our expectations as of the date of this letter and may differ materially from actual future events or results. Among the important factors that could cause actual results to differ materially from those in any forward-looking statements are (i) our ability to develop and commercialize further our BeadArray™, VeraCode®, and Solexa® technologies and to deploy new sequencing, gene expression, and genotyping products and applications for our technology platforms, (ii) our ability to increase our manufacturing capacity and produce robust instrumentation and reagents, and (iii) reductions in the funding levels to our primary customers, including as a result of the timing and amount of funding provided by the American Recovery and Reinvestment Act of 2009, together with other factors detailed in our filings with the Securities and Exchange Commission, including our most recent filings on Forms 10-K and 10-Q, or in information disclosed in public conference calls, the date and time of which are released beforehand. We undertake no obligation, and do not intend, to update these forward-looking statements, to review or confirm analysts' expectations, or to provide interim reports or updates on the progress of the current financial quarter.

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