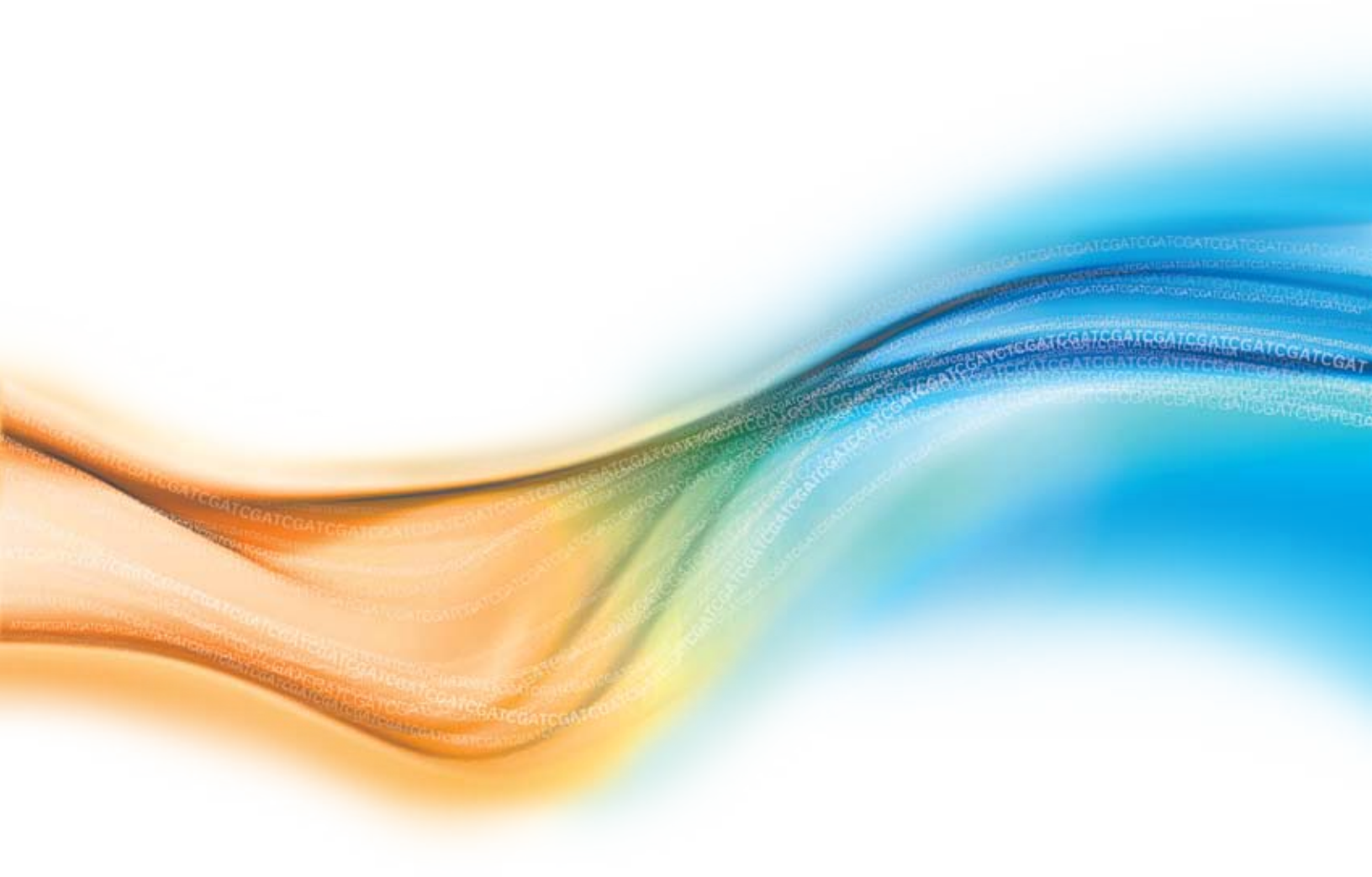
Accelerating genetics.

LIFE SCIENCES • CONSUMER GENETICS • MOLECULAR DIAGNOSTICS



2009 LETTER TO SHAREHOLDERS

illumina®

dear fellow shareholders:

In 2009, we completed another strong year for Illumina. Once again we achieved record revenue, profits, and cash flow. We successfully maintained or extended our market share in our two core markets: next-generation sequencing and DNA microarrays. Importantly, we continued to expand our portfolio of innovative products in our quest to help customers unravel the genetic underpinnings of disease.

Since the founding of the company, Illumina's goal has been to develop products that radically improve our understanding of genetics and human disease. Through rapid innovation, we have been able to change the economics of genetic research, enabling projects once considered unapproachable to now be within reach of every investigator. In 2009 alone, Illumina technology was used to help generate more than 1,220 peer-reviewed publications.

Illumina's objective for the future is to ultimately revolutionize the management of human health. By enabling genetic analysis to be performed quickly and accurately, our products are making genetic information more accessible and allowing researchers to gain a deeper understanding of the molecular biology of disease. We believe that the elucidation of an individual's unique genetic makeup will become an integral component in the future prevention and treatment of disease. Through our innovative portfolio of technologies, Illumina is working to accelerate this future vision of personalized healthcare.

2009 Achievements

Despite some challenges in our markets in 2009, we generated solid full-year results. We grew revenue by 16 percent to $666 million and produced nearly $175 million in operating cash flow. Excluding capital investments of $52 million, we generated $122 million in free cash flow, a record for Illumina. During the year, we returned $175 million to our shareholders through the purchase of over six million shares of our common stock.

Consistent with the core values of the company, product innovation remains the central driver of revenue growth at Illumina. In 2009, we launched over 60 new products or product upgrades across our microarray and sequencing business, generating nearly $200 million in revenue from products launched in the last 12 months.

In our microarray business, we introduced eight new Illumina BeadChips in 2009. The first was the HumanOmni1-Quad, a four-sample BeadChip that includes over a million markers per sample and is powered by the third-generation of our Infinium® microarray technology. It is our first array product to contain rare variant content derived from the 1,000 Genomes Project (1KGP), an endeavor in which researchers are cataloging the vast expanse of genomic diversity by sequencing over 1,000 human genomes from people with various ethnic backgrounds. Following the Omni's launch, we announced our Infinium microarray roadmap, which includes new BeadChips that will contain significantly more 1KGP rare variants. This content will provide researchers with a next-generation catalog of human genetic variation and will catalyze a new wave of genome wide association studies (GWAS).

Shortly after the close of fiscal 2009, we launched the Omni-Express and the Omni-Express Plus. The Omni-Express contains 8.4 million markers across 12 different samples on one BeadChip and is upgradable within our Infinium roadmap. The increased capacity of these third-generation arrays is a testament to the flexibility of our Infinium technology platform and our ability to design BeadChips that improve per-sample economics, while incorporating the content that our customers demand. This new generation of microarray BeadChips will support the launch of the 2.5 and 5 million marker BeadChips that will be introduced as part of our 2010 roadmap.

In 2009, we made phenomenal progress within our sequencing business. Early in the year, we launched the Genome Analyzer$_{IIx}$ (GA$_{IIx}$), a hardware and software upgrade to our

next-generation sequencing technology. We continued to improve the system over the next 10 months, ultimately enabling researchers to generate over 50 gigabases (Gb) of sequence data per run, lowering the cost per whole human genome to approximately $20,000. Early in 2010, we began shipment of early-access kits that have enabled customers to generate 95 Gb of data per run on the GA*IIx*. This will lower the cost per genome to $10,000, an important threshold in enabling the routine sequencing of whole human genome samples in complex disease research, particularly cancer.

In January 2010, we launched the most significant product in Illumina's history, the HiSeq™ 2000. The HiSeq 2000 represents the vision that inspired our acquisition of Solexa® in 2007 – the integration of sequencing by synthesis (SBS) chemistry with state-of-the-art system design and optics. It is a two flow cell, dual-surface imaging system designed and engineered from the ground up. The HiSeq 2000 has generated over 250 Gb of data per run in the hands of our customers and over 350 Gb in our own internal runs. This substantial increase in throughput will reduce the cost of whole human genome sequencing well below the $10,000 threshold, enabling Illumina to once again redefine the trajectory of sequencing and our customers' approach to disease research.

Investing in Our Future Growth

In order to support the significant growth opportunities we see in our markets, we believe it is imperative that we reinvest in our business. Recruiting top talent is critical to support our rapid growth and we are pleased to have added over 230 outstanding members to the Illumina team in 2009. We also made a number of infrastructure investments this year, the most notable of which is a new 49,000 square foot state-of-the-art research and development facility in Little Chesterford, UK.

We grew our investment in research and development (R&D) this year by over 30 percent to support the innovative product development that has enabled us to become market leaders. R&D investment is our engine of innovation and is responsible for such revolutionary products as the HiSeq 2000, the Omni-Express, and our third-generation of Infinium BeadChips.

In 2008, we announced our diagnostics business strategy which included 1) the expansion of our BeadXpress® System installed base, 2) the creation of a CLIA-certified diagnostics services lab, and 3) the whole genome sequencing of cancer tumor and matching normal tissue samples to discover diagnostic oncology biomarkers. In 2009, we made investments and progress in all three areas. Specifically, we submitted the BeadXpress for 510k approval to the Food and Drug Administration (FDA) in September, and we expect to hear a response from the FDA in the first half of 2010. During the first half of 2009, we completed our diagnostics services lab and received CLIA certification. As of the end of the year, we had nearly completed sequencing 25 ovarian cancer samples in our oncology discovery program. We made these initial steps into diagnostics with the belief that this market may ultimately hold the largest long-term growth potential for Illumina. We plan to continue investing in the development of products for this emerging market and to seek additional opportunities to grow our diagnostics presence.

Whole genome sequencing is a key component of the longer-term opportunity we see in diagnostics and personalized medicine. After receiving CLIA certification of our diagnostics services lab, we introduced Illumina's personal genome sequencing service in June 2009. This service enables an individual, in consultation with an Illumina approved physician, to have their entire genome sequenced. We delivered the first whole genome sequence through this service in August and subsequently have sequenced numerous additional samples, including a tumor and normal tissue sample of a cancer patient, as well as samples from a four-person family and a centenarian. While this service is in its early days with respect to adoption and affordability, we believe that personal genome sequencing will become affordable thanks to the strides we are making in reducing the cost of sequencing, and that it will eventually become the standard of care for the delivery of personalized medicine.

Opportunities on the Horizon

Over the past three years, Illumina has lowered the cost of whole human genome sequencing by 100 times. In the past eight years, we have reduced the cost-per-microarray data point by over 3,000 times. This unprecedented pace, which dramatically outstrips Moore's Law, has resulted in a corresponding explosion of demand by researchers to interrogate genetic samples. This relationship supports our view that the demand for genetic information is essentially limitless if we can continue to lower the cost of analysis.

In the near term, this cost reduction has enabled large-scale scientific collaborations like the 1,000 Genomes Project. We believe that this new content, which will populate our third generation of microarrays, will allow researchers to interrogate thousands of disease samples and discover new and more powerful genetic markers to understand the predisposition, diagnosis, and treatment of disease.

In the longer term, it is becoming clear to us that the use of whole human genome sequencing will play a key role in the future of healthcare and enable the development of personalized medicine, particularly in cancer. Early discoveries emerging from the global research community 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 drugs that target mutations specific to an individual's cancer: the ultimate embodiment of personalized medicine.

Today, the research community is at the nexus of foundational genetic discoveries and their direct application to managing healthcare. The translation of these discoveries into actionable medical practice represents a significant challenge but also the greatest opportunity present in today's healthcare industry.

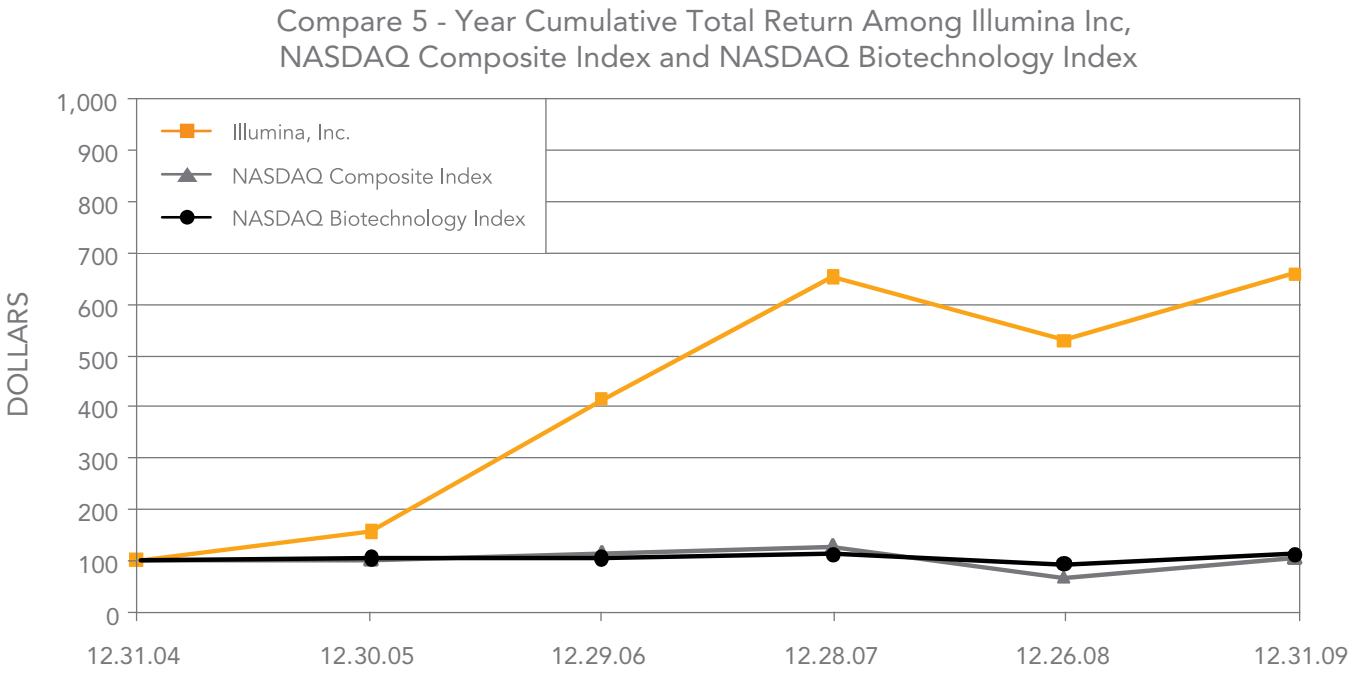
In addition to the opportunities in human health and genetics, Illumina will continue to actively pursue opportunities in the plant and animal market. The same sequencing and microarray solutions that are helping personalize medicine are allowing researchers to improve breeding practices of food crops and animals. We generated over $90 million in agricultural-related orders in 2009. In early 2010, we introduced our next generation BeadChip for livestock research, the BovineHD, which contains over 700,000 markers from 20 different international bovine breeds. As we lower the cost of genetic analysis, we expect to see a corresponding increase in the applications and opportunities of our products by researchers in the plant and animal market.

In conclusion, none of Illumina's achievements are the result of single, individual efforts but rather the passion, motivation and collaboration of a highly effective team. I would like to thank all of our incredibly talented employees who make Illumina the unique company it is. Already, 2010 is shaping up to be one of the most exciting product years in the company's history. After a year of some uncertainty in 2009, our markets and the collective scientific funding environment look to be better than ever. The company is well capitalized with nearly $700 million of cash on our balance sheet and poised to take advantage of the significant opportunities that lie ahead of us.

Best regards,

Jay T. Flatley
President and Chief Executive Officer

illumina®



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 December 31, 2004 through December 31, 2009. The graph assumes that $100 was invested on December 31, 2004 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

BOARD OF DIRECTORS

Jay T. Flatley
President and Chief Executive Officer

William H. Rastetter, Ph.D.
Chairman

Blaine Bowman
Director

Daniel M. Bradbury
Director

Karin Eastham
Director

Jack Goldstein, Ph.D.
Director

Paul Grint, M.D.
Director

David R. Walt, Ph.D.
Director

Roy Whitfield
Director

EXECUTIVE OFFICERS

Jay T. Flatley
President and Chief Executive Officer

Christian O. Henry
Senior Vice President, Chief Financial Officer and General Manager, Life Sciences Business Unit

Christian G. Cabou
Senior Vice President and General Counsel

Gregory F. Heath, Ph.D.
Senior Vice President and General Manager, Diagnostics Business

Tristan B. Orpin
Senior Vice President, Commercial Operations

Mostafa Ronaghi
Senior Vice President and Chief Technology Officer

TRANSFER AGENT

Computershare
250 Royall Street
Canton, MA 02121
www.computershare.com
+1.781.575.3400

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/

INDEPENDENT ACCOUNTANTS

Ernst & Young LLP
San Diego, CA 92122

LEGAL COUNSEL

Dewey & LeBoeuf LLP
New York, NY 10019

ANNUAL MEETING

The Company's 2010 Annual Meeting will be hosted live via the Internet only at 9:00 a.m. PDT on May 12, 2010. Any stockholder can listen to the meeting and participate live via the Internet at www.virtualshareholdermeeting.com/ILMN.

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 and expectations about our business and other forward-looking statements that involve risks and uncertainties. These forward-looking statements are made 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 manufacture 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 after the date of this letter."

WORLDWIDE HEADQUARTERS

Illumina, Inc.

9885 Towne Centre Drive
San Diego, CA 92121 USA
1.800.809.4566 toll-free
1.858.202.4566 tel
1.858.202.4766 fax
www.illumina.com

For local offices and international distributors,
visit www.illumina.com/locations

TRADEMARK INFORMATION

illumina®