ILLUMINA INC
Form 424B2
May 19, 2006

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Filed pursuant to Rule 424(b)(2)
File No. 333-134012
A filing fee of $10,983 has been transmitted to the SEC
in connection with the securities offered pursuant to this prospectus supplement,
based on 4,025,000 shares of common stock at a proposed
maximum aggregate offering price of $102,637,500.

PROSPECTUS SUPPLEMENT TO PROSPECTUS DATED MAY 11, 2006

3,500,000 Shares

Illumina, Inc.

Common Stock

Illumina, Inc. is offering 3,500,000 shares to be sold in the offering.

Our shares are quoted on the Nasdaq National Market under the symbol ILMN. The last reported sale price of our common stock on May 18, 2006 was $25.90 per share.

See Risk Factors on page S-10 to read about factors you should consider before buying shares of the common stock.

	Per Share	Total
Public offering price	$ 25.50	$ 89,250,000
Underwriting discount	$ 1.53	$ 5,355,000
Proceeds, before expenses, to Illumina	$ 23.97	$ 83,895,000

The underwriters may also purchase up to an additional 525,000 shares from Illumina at the initial price to public less the underwriting discount.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares against payment in New York, NY on May 24, 2006.

Goldman, Sachs & Co. **Merrill Lynch & Co.**

Cowen and Company

Robert W. Baird & Co.

The date of this prospectus supplement is May 18, 2006.

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ABOUT THIS PROSPECTUS

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of the common stock we are offering. The second part, the accompanying prospectus dated May 11, 2006, gives more general information about our common stock. You should read this prospectus supplement and the accompanying prospectus, including the information incorporated by reference and any free writing prospectuses we have authorized for use in connection with this offering, in their entirety before making an investment decision.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus, along with the information contained in any permitted free writing prospectuses we have authorized for use in connection with this offering. If the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement. We have not authorized anyone to provide you with different or additional information. Under no circumstances should

the delivery to you of this prospectus supplement and the accompanying prospectus or any sale made pursuant to this prospectus supplement create any implication that the information contained in this prospectus supplement or the accompanying prospectus is correct as of any time after the respective dates of such information.

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Unless the context requires otherwise, the words Illumina, we, company, us and our refer to Illumina, Inc. and it subsidiaries, and the term you refers to a prospective investor.

This prospectus supplement and the documents incorporated by reference into this prospectus supplement include trademarks, service marks and trade names owned by us or others. All trademarks, service marks and trade names included or incorporated by reference in this prospectus supplement are the property of their respective owners. Illumina®, Making Sense Out of Life®, Sentrix®, GoldenGate®, DASL®, Oligator®, BeadArray™, Array of Arrays™, Infinium™, VeraCode™ and BeadXpress™ are trademarks of Illumina and/or one or more of our subsidiaries.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information appearing elsewhere or incorporated by reference in this prospectus supplement and accompanying prospectus and may not contain all of the information that is important to you. This prospectus supplement and the accompanying prospectus include information about the shares we are offering as well as information regarding our business and financial data. You should read this prospectus supplement and the accompanying prospectus, including the information incorporated by reference and any free writing prospectuses we have authorized for use in connection with this offering, in their entirety.

Business Overview

We are a leading developer, manufacturer and marketer of next-generation life science tools and 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 genotyping and gene expression markets, and 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.

Our products primarily serve the estimated $350 million genotyping and $800 million gene expression markets, which are expected to grow at 40% and 5-10% per year, respectively. We principally focus on the fast-growing genotyping market and are expanding our presence in the gene expression market. Growth in these markets has been primarily driven by technological improvements that have enabled a dramatic reduction in the cost per test, making large scale analysis economically feasible to a broader group of researchers. This has also enabled the ability to perform whole genome genotyping, creating a new market segment and accelerating the growth of the genotyping market. Whole genome genotyping is the ability to examine the genetic variation across the entire genome by interrogating a large number of single base variants, known as single nucleotide polymorphisms (SNPs), in the genetic code. We introduced our first whole genome genotyping products in 2005 and have experienced rapid growth as a result of the differentiated performance of our products. We believe that demand for whole genome genotyping products and services will be driven by continued large association studies by academia, as well as pharmacogenomics research by pharmaceutical and biotechnology companies. Ultimately, we believe genotyping will become the standard of care in clinical practice.

We are able to meet the needs of a wide variety of customers in our target markets by providing flexible and cost effective solutions that are based on our patented and proprietary BeadArray technology. Our BeadArray platform is a modular system which enables researchers to design experiments according to their needs. The platform includes disposable arrays and reagents, instrumentation and software, which is used to control the systems and analyze the results of an experiment.

Our strategy is to make our BeadArray platform the industry standard for products and services utilizing array technologies for genetic analysis. We believe that by continuing to innovate, we can offer customers products with the high throughput, flexibility and customizability that they are seeking, thereby growing both our installed base and corresponding sales of our consumable products. We also believe that the discoveries our technology has enabled will create a significant long-term opportunity for us in molecular diagnostics.

Technology, Products and Services

BeadArray Technology

Our BeadArray technology utilizes microscopic beads that are covered with hundreds of thousands of oligonucleotide (oligo) probes, each a single-stranded length of synthetic nucleic acids. Our Oligator technology enables us to produce the millions of unique oligos that are required to implement our BeadArray technology on a

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cost-effective basis. Each oligo includes a short address sequence used to identify the individual bead and, in fixed content arrays, also includes another sequence, or probe, that is used to hybridize to the genomic or ribonucleic acid area of interest. To form an array, we randomly draw hundreds of thousands of coated beads into microwells, which contain on average between 15 and 30 copies of each bead type. Because the coated beads assemble randomly into the wells, we identify the position of each individual bead on the array by performing a final procedure called positional decoding, which uses the address portion of the oligo sequence to identify each bead type and location. This proprietary decoding procedure enables us to test the functionality of each bead in every microwell on every array during our manufacturing process which ensures that each array we ship to customers is of the highest quality. In addition, since our arrays contain multiple copies of a given bead type, the reliability and accuracy of the resulting data is significantly improved 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. In addition, our manufacturing process allows us to create highly customizable arrays in our two array formats, the Sentrix BeadChip and Sentrix Array Matrix.

Sentrix BeadChip and Sentrix Array Matrix

Researchers whose experiments require an examination of a large number of data points across a small number of samples use our Sentrix BeadChips, which provide a high level of multiplexing capability for both SNP genotyping and gene expression studies. Sentrix BeadChips are patterned silicon chips about the size of a microscope slide. Coated microbeads randomly assemble themselves into microwells on the silicon wafer and follow the process described above for positional decoding. The flexibility of the Sentrix BeadChip format has enabled us to develop products that can currently be used to examine up to 16 samples per chip and analyze over 500,000 genetic sequences for a given sample. For example, our latest product, the HumanHap550, allows researchers to investigate more than 550,000 SNPs per array.

For researchers examining fewer data points across many samples, our Sentrix Array Matrix combines high throughput with an extremely cost-effective format. This format contains 96 fiber optic bundles which can interrogate 1,536 unique data points and are arranged in the standard microtiter plate format. This standardized format allows researchers to conduct high throughput experiments for 96 samples simultaneously and can be easily automated using standard robotic equipment, further increasing throughput and productivity.

Infinium, GoldenGate and DASL Proprietary Assays

Our proprietary assay technologies allow users to take advantage of the BeadArray platform. We have three key assays:

Infinium A whole-genome genotyping assay designed to interrogate a large number of SNPs at unlimited levels of loci multiplexing;

GoldenGate A genotyping assay designed for lower level multiplexing; and

DASL A gene expression assay designed for focused gene studies and compatible with degraded RNA samples typical of formalin-fixed paraffin-embedded tissue samples, which are often used in oncology research.

Instrumentation

Our two array formats can be scanned with our BeadArray reader, which is the central component of our BeadStation and BeadLab systems. The BeadArray reader is a confocal laser scanner capable of scanning multiple high-density

array formats. The BeadStation system is designed as a benchtop solution that can be expanded to achieve any required level of throughput. The BeadLab system is a turnkey solution, comprised of our BeadStation system, our automation options, our Laboratory Information Management System (LIMS) and significant additional components to fully equip a laboratory to process millions of assays per day.

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SNP Genotyping Services

In conjunction with our sales of products for genotyping, we also provide SNP genotyping services based on our products and technologies to customers across various markets. We have had peak days in which we have generated more than 40 million SNP genotypes. To our knowledge, no other SNP genotyping platform can achieve comparable levels of throughput while delivering such high accuracy and low cost.

VeraCode Technology

The BeadArray technology is most effective in applications which require mid to high levels of multiplexing from low to high levels of throughput. We believe the molecular diagnostics market will require systems which are extremely high throughput and cost effective in the mid- to low-multiplex range. To address this market, we acquired the VeraCode technology through our acquisition of CyVera Corporation in April 2005. Based on digitally encoded microbeads, VeraCode enables low-cost multiplexing from 1 to 384-plex in a single well. We plan to implement the VeraCode technology using our newly designed BeadXpress System and our existing assays. We believe that this system will be the ideal platform for creating lower multiplex genotyping, gene expression and protein-based assays. In the research market, we expect our customers to utilize our BeadArray technology for their higher multiplex projects and then move to our BeadXpress system for their lower multiplex projects utilizing the same assays and informatics infrastructure. Additionally, we believe that the cost and multiplex advantages of the BeadXpress system using our VeraCode technology will be especially appealing in the molecular diagnostics market. We expect to launch the BeadXpress system before the end of 2006 along with several assays for the system.

Selected Current and Future Products

Application	Assay/Method	Array Format	Product Configurations
SNP Genotyping	GoldenGate (96, 384, 768, 1,536 Multiplex)	Array Matrix	Custom Assays Linkage V4 MHC Panel Cancer Panel Mouse Linkage
	Infinium (Unlimited Multiplexing)	BeadChip	Human-1 HumanHap300, HumanHap240S, HumanHap550 Copy Number Polymorphism analysis
Gene Expression	Whole Genome (Direct Hybridization)	BeadChip	Human 6, Human RefSeq 8 Mouse 6, Mouse RefSeq 8
	Focused Sets (High Sample, Moderate Number of Genes)	Array Matrix	96 Samples × 1,400 Genes
		BeadChip	16 Samples × 1,400 Genes
	DASL (Paraffin-Embedded	Array Matrix	1,536 User-defined genes Universal array

	Samples)		
SNP Genotyping / Gene Expression / Protein Analysis	GoldenGate Custom Assays	VeraCode Technology (2006 launch)	1 384 multiplex custom SNP genotyping Molecular Diagnostic Products Proteomics

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Key Advantages of Our Technology

We believe that our technology provides distinct advantages, in a variety of applications, by creating cost effective, highly miniaturized arrays and turnkey systems with the following features:

High Throughput. The miniaturization of our BeadArray technology provides very high information content per unit area. To increase sample throughput, we have formatted our array matrix in a pattern arranged to match the wells of standard microtiter plates, allowing throughput levels of up to nearly 150,000 unique assays per microtiter plate, and we use laboratory robotics to speed process time. Similarly, we have patterned our whole-genome expression BeadChips to support up to 48,000 gene expression assays for six samples with each BeadChip. Our Infinium assay is supported by full automation and LIMS to address high throughput laboratories.

Cost Effectiveness. Our array products substantially reduce the cost of our customers experiments as a result of our proprietary manufacturing process and our ability to capitalize on cost reductions generated by advances in fiber optics, plasma etching processes, digital imaging and bead chemistry. In addition, our products require smaller reagent volumes than other array technologies, thereby reducing reagent costs for our customers. Our Oligator technology further reduces reagent costs, as well as our cost of coating beads.

Flexibility. We are able to offer flexible solutions to our customers based on our ability to attach different kinds of molecules, including DNA, RNA, proteins and other chemicals, to our beads. In addition, we can have BeadChips manufactured in multiple shapes and sizes with wells organized in various arrangements to optimize them for different markets and market segments. In combination, the use of beads and etched wells provides the flexibility and scalability for our BeadArray technology to be tailored to perform many applications in many different market segments, from drug discovery to diagnostics. Our Oligator technology allows us to manufacture a wide diversity of lengths and quantities of oligos.

Quality and Reproducibility. The quality of our products is dependent upon each element in the system, the array, the assay used to perform the experiment and the instrumentation and software used to capture the results. Each array is manufactured with a high density of beads, which enables us to have multiple copies of each individual bead type. We measure the copies simultaneously and combine them into one data point. This allows us to make a comparison of each bead against its own population of identical beads, which permits the statistical calculation of a more reliable and accurate value for each data point. Finally, the manufacture of the array includes a proprietary decoding step that also functions as a quality control test of every bead on every array, improving the overall quality of the data. When we develop the assays used with our products, we focus on performance, cost and ease of use. By developing assays that are easy to use, we can reduce the potential for the introduction of error into the experiment. We believe that this enables researchers to obtain high quality and reproducible data from their experiments. Additionally, we manufacture substantially all of the reagents used in our assays, allowing us to control the quality of the product delivered to the customer.

Our Corporate Information

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, and our telephone number is (858) 202-4500. We maintain an Internet website at *www.illumina.com.* We have not incorporated by reference into this prospectus supplement or accompanying prospectus the information in, or that can be accessed through, our website, and you should not consider it to be a part of this prospectus supplement or accompanying prospectus.

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The Offering

Common stock we are offering	3,500,000 shares
Common stock outstanding as of April 2, 2006, as adjusted for this offering	45,196,733 shares
Risk factors	See Risk Factors on page S-10 and the other information included or incorporated by reference in this prospectus supplement or accompanying prospectus for a discussion of the factors you should consider before you make an investment decision.
Nasdaq National Market symbol	ILMN
Use of proceeds	See Use of Proceeds on page S-18 for information on how we expect to use the net proceeds from this offering.

The number of shares of our common stock outstanding as adjusted for this offering is based on 41,696,733 shares outstanding as of April 2, 2006 and excludes:

- 8,139,647 shares of our common stock issuable upon exercise of options outstanding as of April 2, 2006, at a weighted average exercise price of $9.91 per share, of which options to purchase 2,792,545 shares were exercisable as of that date; and
- 6,879,757 shares of our common stock available for future grant under our equity incentive plans as of April 2, 2006.

Unless we specifically state otherwise, the information in this prospectus supplement assumes that the underwriters do not exercise their option to purchase up to 525,000 additional shares of our common stock.

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Summary Consolidated Financial Data

The following summary consolidated financial data for each of the three fiscal years ended January 1, 2006, January 2, 2005 and December 28, 2003 is derived from our audited consolidated financial statements incorporated by reference into this prospectus supplement. The following summary consolidated financial data as of April 2, 2006 and for the three months ended April 2, 2006 and April 3, 2005 is derived from our unaudited interim condensed consolidated financial statements, which are incorporated by reference into this prospectus supplement.

This information is only a summary and should be read together with the consolidated financial statements, the related notes and other financial information incorporated by reference into this prospectus supplement and on file with the SEC. For more details on how you can obtain our SEC reports incorporated by reference into this prospectus supplement, see Where You Can Find More Information.

	Year Ended			(Unaudited) Three Months Ended	
	January 1, 2006	January 2, 2005	December 28, 2003	April 2, 2006	April 3, 2005
	(in thousands, except per share data)				
Statement of Operations Data					
Revenue:					
Product revenue	$ 57,752	$ 40,497	$ 18,378	$ 23,261	$ 12,165
Service and other revenue	13,935	8,075	6,496	5,267	2,691
Research revenue	1,814	2,011	3,161	574	292
Total revenue	73,501	50,583	28,035	29,102	15,148
Costs and expenses:					
Cost of product revenue	19,920	11,572	7,437	7,676	3,937
Cost of service and other revenue	3,261	1,687	2,600	1,617	662
Research and development	27,809	21,462	23,800	8,216	5,893
Selling, general and administrative	28,158	25,576	20,064	12,134	6,035
Acquired in-process research and development	15,800				
Litigation judgment (settlement), net		(4,201)	756		
Total costs and expenses	94,948	56,096	54,657	29,643	16,527
Loss from operations	(21,447)	(5,513)	(26,622)	(541)	(1,379)
Interest and other income (loss), net	573	(712)	(441)	568	195
Income (loss) before income taxes	(20,874)	(6,225)	(27,063)	27	(1,184)
Provision for income taxes				131	51
Net loss	$ (20,874)	$ (6,225)	$ (27,063)	$ (104)	$ (1,235)
Net loss per share, basic and diluted	$ (0.52)	$ (0.17)	$ (0.85)	$ 0.00	$ (0.03)
Shares used in calculating net loss per share, basic and diluted	40,147	35,845	31,925	41,475	38,347

On January 1, 2006, we adopted Statement of Financial Accounting Standards (SFAS) No. 123R (revised 2004), *Share-Based Payment.* We have elected to use the modified prospective transition method as permitted by SFAS No. 123R and, accordingly, prior periods have not been restated to reflect the impact of SFAS No. 123R. We recorded $3.1 million of non-cash stock-based compensation expense during the three months ended April 2, 2006 as a result of the adoption of SFAS No. 123R. This non-cash stock-based compensation expense reduced our net income per share by $0.07 on a basic and diluted basis for the three months ended April 2, 2006. Excluding the impact of non-cash stock-based compensation expense, net income would have been approximately $3.0 million, or $0.07 per share on a basic and diluted per share basis, for the three months ended April 2, 2006. As a result of our

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adoption of SFAS No. 123R, certain prior period amounts have been reclassified to conform with current period presentation.

We believe that the presentation of results excluding items such as non-cash stock compensation expense provides meaningful supplemental information to both management and investors that is indicative of our core operating results and facilitates the comparison of operating results across reporting periods. We use these non-GAAP measures when evaluating our financial results, as well as for internal planning and forecasting purposes. In addition, management s bonus compensation is based on our performance against these non-GAAP measures. These non-GAAP measures should not be viewed as a substitute for our GAAP results.

	As of April 2, 2006	
	Actual	As adjusted[(1)]
	(Unaudited) (in thousands)	
Balance sheet data		
Cash and cash equivalents	$ 49,044	$ 132,614
Working capital	59,892	143,462
Total assets	112,526	196,096
Long-term debt, less current portion	25	25
Stockholders equity	78,722	162,292

(1) As adjusted to give effect to the sale of 3,500,000 shares of common stock we are offering pursuant to this prospectus supplement at a public offering price of $25.50 per share, after deducting underwriting discounts and commissions and estimated offering expenses to be paid by us.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. In addition to the other information included and incorporated by reference in this prospectus or accompanying prospectus supplement or in any free writing prospectus we have authorized for use in connection with this offering, you should carefully consider the risks described below before purchasing our common stock. If any of the following risks actually occurs, our business, results of operations and financial condition will likely suffer, the trading price of our common stock may decline, and you might lose part or all of your investment.

Risks Related to Our Business

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 the ability to protect our own intellectual property. As described in this prospectus supplement under Business Legal Proceedings, Affymetrix, Inc. filed a complaint against us in July 2004, alleging infringement of six of its patents.

On April 20, 2006, a claims construction hearing was held as part of this proceeding. We expect a ruling related to the claims construction within the next several weeks, but there is no fixed time for such a ruling. At issue is the meaning of 15 terms, and depending on the court s ruling on each of the 15 terms, or a mix of rulings across all the terms, an advantage (or at least the perception of an advantage) may be obtained by one party or the other as to one or more issues. We are not able to predict the timing or the substance of the court s rulings. Any adverse ruling or perception of an adverse ruling may have an adverse impact on our stock price, and such impact may be disproportionate to the actual import of the ruling itself.

Including Affymetrix, third parties have asserted or may assert that we are employing their proprietary technology without authorization. As we enter new markets, we expect that competitors will likely assert 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 and claim that 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. Furthermore, parties making claims against us may be able to obtain injunctive or other relief, which effectively could block our ability to further develop, 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. We may not be able to obtain these licenses at a reasonable cost, or at all. We could incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins. In that event, 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 to attain profitability.

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 achieve 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 such as two-dimensional electrophoresis, capillary electrophoresis, mass spectrometry, flow cytometry, microfluidics, 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, the life sciences and pharmaceutical companies, which are our potential customers and strategic partners, could develop competing products. 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.

Our manufacturing capacity may limit our ability to sell our products.

We are currently ramping up our capacity to meet our anticipated demand for our products. Although we have significantly increased our manufacturing capacity and we believe that we have sufficient plans in place to ensure we have adequate capacity to meet our business plan in 2006, 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 facility 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.

We have not yet achieved annual operating profitability and may not be able to do so.