

ILLUMINA INC
Form S-3
May 20, 2005

Table of Contents

As filed with the Securities and Exchange Commission on May 20, 2005

Registration No. 333-_____

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

**REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933**

ILLUMINA, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

33-0804655

(I.R.S. Employer Identification No.)

**9885 Towne Centre Drive, San Diego, California 92121
(858) 202-4500**

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

**Jay T. Flatley
President and Chief Executive Officer
Illumina, Inc.**

**9885 Towne Centre Drive, San Diego, California 92121
(858) 202-4500**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

**Edward Y. Kim
Heller Ehrman LLP
275 Middlefield Road
Menlo Park, CA 94025-3506
(650) 324-7000**

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, please check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

CALCULATION OF REGISTRATION FEE

| Title of Each Class of Securities to be Registered | Amount To be Registered (1) | Proposed Maximum Offering Price Per Share (2) | Proposed Maximum Aggregate Offering Price (2) | Amount of Registration Fee |
|---|--------------------------------|---|---|-------------------------------------|
| Common Stock, par value \$0.01 per share (3) | 1,579,897 | \$9.68 | \$15,293,403 | \$1,801 |

- (1) The shares of common stock set forth in the Calculation of Registration Fee Table, and which may be offered pursuant to this registration statement, includes, pursuant to Rule 416 of the Securities Act of 1933, as amended, such additional number of shares of the registrant's common stock that may become issuable as a result of any stock splits, stock dividends or similar event.
- (2) Estimated solely for the purpose of computing the amount of the registration fee, based on the average of the high and low prices per share for the registrant's common stock as reported on the Nasdaq National Market on May 16, 2005, in accordance with Rule 457 under the Securities Act of 1933.
- (3) Each share of the registrant's common stock being registered hereunder, if issued prior to the termination by the registrant of its preferred share rights agreement, includes Series A junior participating preferred stock purchase rights. Prior to the occurrence of certain events, the Series A junior participating preferred stock purchase rights will not be exercisable or evidenced separately from the registrant's common stock and have no value except as reflected in the market price of the shares to which they are attached.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission,

acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this preliminary prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission becomes effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MAY 20, 2005

PRELIMINARY PROSPECTUS

Illumina, Inc.

1,579,897 Shares

Common Stock

This prospectus relates to 1,579,897 shares of our common stock that were originally issued by us in connection with our acquisition of CyVera Corporation. These shares may be offered and sold from time to time by our stockholders identified beginning on page 11 of this prospectus (the selling stockholders) in transactions on the open market at the prevailing market price for the shares or in negotiated transactions at prices satisfactory to them. We will not receive any portion of the proceeds for the sale of these shares.

Investing in our securities involves a high degree of risk. See Risk Factors beginning on page 3.

Our common stock currently trades on The Nasdaq National Market under the symbol ILMN. On May 18, 2005, the last reported sales price of our common stock was \$10.35 per share.

Our principal executive offices are located at 9885 Towne Centre Drive, San Diego, California 92121. Our telephone number there is (858) 202-4500.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2005

Table of Contents

TABLE OF CONTENTS

| | Page |
|--|-------------|
| <u>About this Prospectus</u> | 2 |
| <u>Risk Factors</u> | 3 |
| <u>Special Note Regarding Forward-Looking Statements</u> | 10 |
| <u>Use of Proceeds</u> | 11 |
| <u>Selling Stockholders</u> | 11 |
| <u>Plan of Distribution</u> | 16 |
| <u>Legal Matters</u> | 17 |
| <u>Experts</u> | 17 |
| <u>Where You Can Find More Information</u> | 17 |
| <u>Incorporation of Certain Information by Reference</u> | 18 |
| <u>EXHIBIT 5.1</u> | |
| <u>EXHIBIT 23.1</u> | |

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus constitutes part of the registration statement on Form S-3 filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended, utilizing a shelf registration or continuous offering process. It omits some of the information contained in the registration statement and reference is made to the registration statement for further information with respect to us and the securities we offered by the selling stockholders. Any statement contained in the prospectus concerning the provisions of any document filed as an exhibit to the registration statement or otherwise filed with the Securities and Exchange Commission is not necessarily complete, and in each instance, reference is made to the copy of the document filed.

You should rely only on information contained in or incorporated by reference in this prospectus. We have not authorized anyone to provide you with information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. These securities will not be sold in any jurisdiction where such sale is not permitted. The information contained in this prospectus is accurate only as of the date of this prospectus or earlier dates as specified herein. Our business, financial condition, results of operations and prospects may have changes since those dates.

This prospectus provides you with a general description of the common stock that will be sold pursuant to this prospectus. The registration statement filed with the Securities and Exchange Commission includes exhibits that provide more details about the matters discussed in this prospectus. You should read this prospectus and the related exhibits filed with the Securities and Exchange Commission, together with the additional information described under **Where You Can Find More Information**.

Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus to the Company, Illumina, we, us, our, or similar references mean Illumina, Inc.

Table of Contents

RISK FACTORS

You should carefully consider the following risks and uncertainties, together with all of the other information included in this prospectus and in our other filings with the SEC before you invest in our common stock. Investing in our common stock involves risk. We believe the following are the material risks and uncertainties we face at the present time. If any of the following risks or uncertainties actually occur, our business, financial condition or results of operations could be materially adversely affected. In any case, the trading price of our common stock could decline, and you could lose all or part of your investment. See also, Special Note Regarding Forward-Looking Statements.

Risks Related to Our Business

On April 8, 2005, we acquired CyVera Corporation (CyVera) as a wholly-owned subsidiary. We may not realize the expected benefits of the acquisition because of integration and other challenges, which could adversely affect our business.

We have limited experience in acquisition activities and integrating the operations, technologies, products, services, information systems and personnel of Illumina and CyVera may be a complex, time consuming and expensive process that could significantly disrupt the business of the combined company. We expect our assumption of certain liabilities and our hiring of certain employees of CyVera to result in an increase in research and development expenses and our capital expenditures. Employees and management of each of Illumina and CyVera have played a key role in creating each company and the integration of these two companies will alter prior relationships and may affect productivity. If we fail to successfully meet the challenges involved in integration or otherwise fail to realize any of the anticipated benefits of the acquisition, then the results of operations of the combined company could be seriously harmed. Realizing the benefits of the acquisition, if any, will depend in part on the successful integration of technology, operations and personnel.

We may not successfully integrate the operations of CyVera and Illumina in a timely manner, or at all, and the combined company may not realize the anticipated benefits of the acquisition to the extent, or in the timeframe, anticipated. The anticipated benefits of the acquisition are based on projections and assumptions, including successful integration, not actual experience. In addition to the integration risks discussed above, the combined company's ability to realize those benefits could be adversely effected by practical or legal constraints on its ability to combine operations.

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.

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. While we recently settled our litigation with Applera Corporation's Applied Biosystems Group in August 2004, Affymetrix filed a complaint against us in July 2004, alleging infringement of six of its patents, and other third parties have 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 have or may obtain patents in the future 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. We may incur the same costs and diversions in enforcing our patents against others. 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. 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 could prevent us from commercializing available products, and the prohibition of sale of any of our products could materially affect our ability to grow and to attain profitability.

Table of Contents

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 profitability. If we cannot continuously develop and commercialize new products, our revenues may not grow as intended.

We compete with life sciences companies that design, manufacture and market instruments for analysis of genetic variation and function and other applications using technologies such as two-dimensional electrophoresis, capillary electrophoresis, mass spectrometry, flow cytometry, microfluidics, 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, Affymetrix recently released a 100k SNP genotyping chip and has announced a 500k chip which will compete with our SNP genotyping service and product offerings and several competitors have begun selling a single chip for whole human genome expression which may compete with our gene expression product offerings. One or more of our competitors may render our technology obsolete or uneconomical. 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 have. 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.

We may encounter difficulties in integrating future acquisitions and that could adversely affect our business.

We have limited experience in acquisition activities and may have to devote substantial time and resources in order to complete acquisitions. Further, these potential acquisitions entail risks, uncertainties and potential disruptions to our business. For example, we may not be able to successfully integrate a company's operations, technologies, products and services, information systems and personnel into our business. An acquisition may further strain our existing financial and managerial controls, and divert management's attention away from our other business concerns. There may also be unanticipated costs and liabilities associated with an acquisition that could adversely affect our operating results.

We have generated only moderate amounts of revenue from product and service offerings to date. We expect to continue to incur net losses and we may not achieve or maintain profitability.

We have incurred net losses since our inception and expect to continue to incur net losses through most of 2005. At April 3, 2005 our accumulated deficit was \$124.9 million, and we incurred a net loss of \$1.2 million for the three months ended April 3, 2005. The magnitude of our net losses will depend, in part, on the rate of growth, if any, of our revenue and on the level of our expenses. We expect to continue incurring significant expenses for research and development, for developing our manufacturing capabilities and for sales and marketing efforts to commercialize our products. In addition, we expect that our selling and marketing expenses will increase at a higher rate in the future as a result of the launch of new products. As a result, we expect that our operating expenses will increase significantly as we grow and, consequently, we will need to generate significant additional revenue to achieve profitability. Even if we achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

We have a limited history of commercial sales of systems and consumable products, and our success depends on our ability to develop commercially successful products and on market acceptance of our new and relatively unproven technologies.

We may not possess all of the resources, capability and intellectual property necessary to develop and commercialize all the products or services that may result from our technologies. Sales of our genotyping and gene expression systems only began in 2003, and some of our other technologies are in the early stages of commercialization or are still in development. You should evaluate us in light of the uncertainties and complexities affecting similarly situated companies developing tools for the life sciences and pharmaceutical industries. We must conduct a substantial amount of additional research and development before some of our products will be ready for sale and we currently have fewer resources available for research and development activities than many of our competitors. We may not be able to develop or launch new products in a timely manner, or at all, or they may not

Table of Contents

meet customer requirements or be of sufficient quality or price that enables us to compete effectively in the marketplace. Problems frequently encountered in connection with the development or early commercialization of products and services using new and relatively unproven technologies might limit our ability to develop and successfully commercialize these products and services. In addition, we may need to enter into agreements to obtain intellectual property necessary to commercialize some of our products or services.

Historically, life sciences and pharmaceutical companies have analyzed genetic variation and function using a variety of technologies. In order to be successful, our products must meet the commercial requirements of the life sciences and pharmaceutical industries as tools for the large-scale analysis of genetic variation and function.

Market acceptance will depend on many factors, including:

our ability to demonstrate to potential customers the benefits and cost effectiveness of our products and services relative to others available in the market;

the extent and effectiveness of our efforts to market, sell and distribute our products;

our ability to manufacture products in sufficient quantities with acceptable quality and reliability and at an acceptable cost; and

the willingness and ability of customers to adopt new technologies requiring capital investments.

Any inability to adequately protect 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 problems in protecting their proprietary rights abroad. These problems can be caused by the absence of rules and methods for defending intellectual property rights.

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 will 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. 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 additional 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.

We also rely upon trade secret protection for our confidential and proprietary information. We have taken security measures to protect our proprietary information. These measures, however, may not provide adequate protection for our trade secrets or other proprietary information. We seek to protect our proprietary information by entering into confidentiality agreements with employees, collaborators and consultants. Nevertheless, employees, collaborators or consultants may still disclose our proprietary information, and we may not be able to meaningfully protect our trade secrets. In addition, others may independently develop substantially equivalent proprietary information or techniques

or otherwise gain access to our trade secrets.

We have limited experience in manufacturing commercial products.

We have limited experience manufacturing our products in the volumes that will be necessary for us to achieve significant commercial sales. We have only recently begun manufacturing products on a commercial-scale and, in the past, we have experienced variations in manufacturing conditions that have temporarily reduced

Table of Contents

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, may prevent us from achieving expected performance levels or cause us to set prices that hinder wide adoption by customers.

Our sales, marketing and technical support organization may limit our ability to sell our products.

We currently have fewer resources available for sales and marketing and technical support services as compared to our primary competitors and have only recently established a small direct sales force and customer support team. In order to effectively commercialize our genotyping and gene expression systems and other products to follow, we will need to expand our sales, marketing and technical support staff both domestically and internationally. We may not be successful in establishing or maintaining either a direct sales force or distribution arrangements to market our products and services. In addition, we compete primarily with much larger companies, that have larger sales and distribution staffs and a significant installed base of products in place, and the efforts from a limited sales and marketing force may not be sufficient to build the market acceptance of our products required to support continued growth of our business.

If we are unable to 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 currently possess only one facility capable of manufacturing our products and services for both sale to our customers and internal use. If a natural disaster were to significantly damage our facility or if other events were to cause our operations to fail, these events could prevent us from developing and manufacturing our products and services.

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 obtain the fiber optic bundles and BeadChip slides included in our products from single vendors. 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.

We may encounter difficulties in managing our growth. These difficulties could increase our losses.

We expect 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 losses could increase. 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.

We may need additional capital in the future. If additional capital is not available on acceptable terms, we may have to curtail or cease operations.

Our future capital requirements will be substantial and will depend on many factors including our ability to successfully market our genetic analysis systems and services, the need for capital expenditures to support and expand our business, the progress and scope of our research and development projects, the filing, prosecution and enforcement of patent claims, the outcome of our legal proceedings with Affymetrix 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. We anticipate that our existing capital resources will enable us to maintain currently

Table of Contents

planned operations for at least 24 months. However, we premise this expectation on our current operating plan, which may change as a result of many factors. Consequently, we may need additional funding within this timeframe. Our inability to raise capital would seriously harm our business and product development efforts. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, such as an acquisition, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity, the issuance of these securities could result in dilution to our stockholders.

We currently have no credit facility or committed sources of capital available as of May 18, 2005. To the extent operating and capital resources are insufficient to meet future requirements; we will have to raise additional funds to continue the development and commercialization of our technologies. These funds may not be available on favorable terms, or at all. If adequate funds are not available on attractive terms, we may be required to curtail operations significantly or to obtain funds by entering into financing, supply or collaboration agreements on unattractive terms.

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, David Barker, our vice president and chief scientific officer, and John Stuelpnagel, our senior vice president and chief operating officer. The loss of their services could adversely impact our ability to achieve our business objectives. In addition, as we announced in October 2004, Timothy Kish, our chief financial officer, has resigned from Illumina, effective April 29, 2005. On May 3, 2005, we announced Christian Henry had accepted our employment offer for the chief financial officer position, and is expected to start in early June. 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 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.

A significant portion of our sales are to international customers.

Approximately 52% of our revenues for the year ended January 2, 2005 and approximately 64% of our revenues for the three months ended April 3, 2005 were derived from customers outside the United States. We intend to continue to expand our international presence and export sales to international customers and we expect the total amount of non-U.S. sales to continue to grow. Export sales entail a variety of risks, including:

currency exchange fluctuations;

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

difficulties in obtaining export licenses or 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, sales to international customers typically result in longer payment cycles and greater difficulty in accounts receivable collection. 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.

Table of Contents

Our success depends upon the increasing availability of genetic information and the continued emergence and growth of markets for analysis of genetic variation and 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 initially focusing on markets for analysis of genetic variation and function, namely SNP genotyping and gene expression profiling. Both of 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 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 function. 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 achieve or sustain profitability.

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

Our revenues are 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 amount of government grant funding programs, 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 are relatively fixed, including expenses for facilities, equipment and personnel. In addition, we expect operating expenses to continue to increase significantly. Accordingly, if revenue does not grow as anticipated, we may not be able to reduce our operating losses. Approximately 30% of our revenues for the year 2004 and 16% of revenues for the first quarter of 2005 resulted from transactions that were funded under the International HapMap Project. We believe virtually all of the activities under this grant involving the Company and its customers were completed in early 2005. Although we expect that the loss of revenues resulting from the completion of the HapMap grant may be offset by the planned commercial launch of our whole genome genotyping arrays and our recently launched whole genome gene expression arrays, combined with the continued expansion of our existing product lines, any significant delays in the commercial launch 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 in 2005 or cause a sequential decline in quarterly revenues. 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 probably would decline.

Risks Related to this Offering

Our stock price is highly volatile and you may not be able to resell your shares at or above the price you pay for them.

The market price of our common stock has been, and is likely to continue to be, highly volatile. The following factors, among others, could have a significant impact on the market price of our common stock:

The factors listed above under *Risks Related to Our Business*;

announcements by us of significant acquisitions, strategic partnerships, joint ventures or capital commitments;

general economic conditions;

comments made by analysts, including changes in, or failure to achieve, financial estimates by securities analysts;

future sales of equity or debt securities by us; and

sales of our common stock by our directors, officers or significant stockholders.

Table of Contents

In addition, the stock market in general and the market for stocks of life science companies in particular, have experienced significant price and volume fluctuations. Volatility in the market price for particular companies, especially companies with smaller market capitalization, has often been unrelated or disproportionate to the operating performance of those companies. These broad market and industry factors might seriously harm the market price of our common stock, regardless of our operating performance. In addition, securities class action litigation has often been initiated following periods of volatility in the market price of a company's securities. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of management's attention and resources.

Provisions in our charter documents and under Delaware law could prevent or delay a change of control, which could reduce the market price of our common stock.

Certain provisions of our certificate of incorporation, as amended, our bylaws, as amended, and the Delaware General Corporation Law may be deemed to have an anti-takeover effect and could discourage a third party from acquiring, or make it more difficult for a third party to acquire, control of us without approval of our board of directors.

The provisions described above and provisions of the California General Corporation Law may discourage, delay or prevent a third party from acquiring us. These provisions could also limit the price that certain investors might be willing to pay in the future for shares of our common stock.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference in this prospectus, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We have based these forward-looking statements on our current expectations and projections about future events. Our actual results could differ materially from those discussed in, or implied by, these forward-looking statements. Forward-looking statements are identified by words such as believe, anticipate, expect, intend, plan, will, may and other similar expressions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. Forward-looking statements include, but are not necessarily limited to, those relating to:

the anticipated benefits of our acquisition of CyVera;

the introduction and development of new products, product improvements and new services;

the applicability and usefulness of our technologies in various markets and industries;

the success of our technologies;

emerging markets in functional genetic analysis, namely SNP genotyping, gene expression profiling and proteomics, and the future growth of these markets;

demand for increased throughput in genetic analysis;

continued advances in genomics;

the potential to derive medically valuable information from raw genetic data and the further potential to use this information to improve drugs and therapies, to customize diagnosis and treatment, and cure disease;

potential future partnerships, collaborations and acquisitions; and

growth in our research and development and general and administrative expenses.

These statements are only predictions. In evaluating these statements, you should consider various factors, including the risks outlined under Risk Factors. These factors may cause actual events or our results to differ materially from those expressed or implied by any forward-looking statement. 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. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these forward-looking statements. We are under no duty and do not intend to update any of the forward-looking statements after the date of this prospectus or to conform our prior statements to actual results.

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy common stock, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy common stock in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference,

even though this prospectus is delivered or common stock is sold on a later date.

Table of Contents**USE OF PROCEEDS**

All net proceeds from the sale of the shares of our common stock covered by this prospectus will go to the selling stockholders who offer and sell their shares. We will not receive any proceeds from the sale of these shares by the selling stockholders.

SELLING STOCKHOLDERS

All of the common stock registered for sale pursuant to this prospectus are owned by the selling stockholders. All of the shares offered hereby were acquired by the selling stockholders in connection with our acquisition of CyVera and pursuant to an Agreement and Plan of Merger, dated as of February 22, 2005, among us, Semaphore Acquisition Sub, Inc. and CyVera (the Merger Agreement). Alan D. Kersey, one of the selling stockholders, is an executive officer of Illumina. Alan D. Kersey's wife is the trustee of the Kersey Family Trust, another of the selling stockholders. Certain of the selling stockholders are affiliates of CiDRA Corporation, which subleases to CyVera the property in which its offices are located. No other selling stockholder has a material relationship with us, except that certain selling stockholders are non-officer employees of Illumina.

The following table sets forth certain information known to us with respect to beneficial ownership of our common stock as of May 18, 2005, by each selling stockholder. Under SEC rules, shares of our common stock subject to options held by a selling stockholder that are either currently exercisable or exercisable within 60 days of May 18, 2005 are deemed outstanding. Such shares, however, are not deemed outstanding for the purpose of computing the percentage ownership of any other selling stockholder. Information about the selling stockholder may change over time. Any changed information given to us by the selling stockholders will be set forth in prospectus supplements if and when necessary. Because the selling stockholders may offer all or some portion of the shares, we have assumed for purposes of the table below that all shares covered by this prospectus will be sold. We are unable to determine the exact number of shares that actually will be sold. We do not know how long the selling stockholders will hold the shares before selling them and we currently have no agreements, arrangements or understandings with any of the selling stockholders regarding the sale of any of the shares, except that David R. Huber and F. Kevin Didden entered into lock-up agreements with the Company which impose restrictions on their ability to engage in transactions involving the shares beneficially owned by them, including, among others, a restriction that they cannot directly or indirectly dispose of such shares prior to July 7, 2005.

| | Number of Shares Beneficially Owned Prior to the Offering | Number of Shares Offered by this Prospectus | Shares Beneficially Owned After the Offering | |
|---|--|---|--|---------------|
| | | | Number of Shares | Percentage(1) |
| Selling Stockholders | | | | |
| David R. Huber(2) | 238,490 | 238,490 | | * |
| F. Kevin Didden (3) | 162,914 | 162,914 | | * |
| KS Teknoinvest V(2) | 120,257 | 120,257 | | * |
| First Reserve Fund VIII, L.P. (2) | 100,010 | 100,010 | | * |
| Connecticut Innovations, Incorporated(2) | 89,004 | 89,004 | | * |
| Alan D. Kersey (4)(5) | 75,797 | 67,082 | 8,715 | * |
| FOL Liquidation Trust(2) | 49,236 | 49,236 | | * |
| Axiom Venture Partners II, Limited Partnership(2) | 46,537 | 46,537 | | * |

Edgar Filing: ILLUMINA INC - Form S-3

| | | | |
|---|--------|--------|---|
| First Reserve Fund VII, Limited Partnership(2) | 42,861 | 42,861 | * |
| Didden Investment LLC(3) | 42,440 | 42,440 | * |
| Optical Capital Group, LLC(2) | 40,765 | 40,765 | * |
| Phillip E. and Mary S. Pruett Trustees for the Phillip E. and Mary S. Pruett 2002 Revocable Living Trust(3) | 35,594 | 35,594 | * |
| Michael Grillo(3) | 26,011 | 26,011 | * |
| CII/NEV LLC(2) | 25,458 | 25,458 | * |
| United Eastern Investment Corp. (2) | 22,250 | 22,250 | * |
| Coastdock & Co.(2) | 17,952 | 17,952 | * |
| Spanglestar & Co.(2) | 17,952 | 17,952 | * |

Table of Contents

| | Number of Shares Beneficially Owned Prior to the Offering | Number of Shares Offered by this Prospectus | Shares Beneficially Owned After the Offering | |
|---|--|---|--|---------------|
| | | | Number of Shares | Percentage(1) |
| Selling Stockholders | | | | |
| Optoinvest AS(3) | 17,797 | 17,797 | | * |
| The Hodson Trust(2) | 17,604 | 17,604 | | * |
| Cargolamp & Co.(2) | 17,053 | 17,053 | | * |
| KS Teknoinvest VI(2) | 16,664 | 16,664 | | * |
| John Moon(4)(6) | 16,514 | 13,690 | 2,824 | * |
| Venturos I DA(2) | 14,009 | 14,009 | | * |
| Daniel L. Gysling(3) | 13,690 | 13,690 | | * |
| Terrence J. Brennan(4)(7) | 13,248 | 9,583 | 3,665 | * |
| MSD Portfolio, L.P. Investments(2) | 12,835 | 12,835 | | * |
| Gerald L. DePardo(4)(8) | 12,342 | 9,583 | 2,759 | * |
| John V. Viega(3) | 12,320 | 12,320 | | * |
| Grosvenor Fund, L.P.(2) | 11,514 | 11,514 | | * |
| James Sirkis(4)(9) | 11,086 | 6,845 | 4,241 | * |
| Frederick J. Leonberger(2) | 10,622 | 10,622 | | * |
| Martin A. Putnam(4)(10) | 10,231 | 8,214 | 2,017 | * |
| Mark R. Fernald(3) | 9,583 | 9,583 | | * |
| Morgan Stanley Dean Witter Equity Funding, Inc.(2) | 8,527 | 8,527 | | * |
| Amerindo Technology Growth Fund II, Inc.(2) | 8,319 | 8,319 | | * |
| Sumitomo Electric Industries, Ltd.(2) | 8,269 | 8,269 | | * |
| Michael A. Davis(3) | 8,214 | 8,214 | | * |
| Robert J. Maron(3) | 8,214 | 8,214 | | * |
| Michael Sapack(3) | 8,214 | 8,214 | | * |
| Velocity Capital, LLC(2) | 5,713 | 5,713 | | * |
| Paul Rothman(3) | 5,476 | 5,476 | | * |
| Infosys Technologies Limited(2) | 5,385 | 5,385 | | * |
| Amerindo Internet Fund PLC(2) | 5,380 | 5,380 | | * |
| Emerging Technology Portfolio(2) | 5,379 | 5,379 | | * |
| Grosvenor Select, LP(2) | 4,961 | 4,961 | | * |
| Tharald Brovig(2) | 4,497 | 4,497 | | * |
| Pilot Holdings, L.P.(2) | 4,459 | 4,459 | | * |
| Wheatley Partners III, L.P.(2) | 4,228 | 4,228 | | * |
| HRLD LP(2) | 4,132 | 4,132 | | * |
| David Bellemore(3) | 4,106 | 4,106 | | * |
| Paul C. Dolan(3) | 4,106 | 4,106 | | * |
| James R. Dunphy(3) | 4,106 | 4,106 | | * |
| Arthur D. Hay(3) | 4,106 | 4,106 | | * |
| Keith R. Morley(3) | 4,106 | 4,106 | | * |
| Kim D. Larsen(2) | 3,721 | 3,721 | | * |
| MSD Select Sponsors Venture Capital Partnership, L.P.(2) | 3,590 | 3,590 | | * |

Edgar Filing: ILLUMINA INC - Form S-3

| | | | |
|----------------------------------|-------|-------|---|
| VPF CiDRA Investments II, LLC(2) | 3,016 | 3,016 | * |
| David A. Volgel(2) | 2,862 | 2,862 | * |
| Quarry OM Partners, LLC(2) | 2,862 | 2,862 | * |
| Thomas Lips(2) | 2,829 | 2,829 | * |
| John Biesak(3) | 2,737 | 2,737 | * |
| Allen R. Davis(3) | 2,737 | 2,737 | * |
| John J. Grunbeck(3) | 2,737 | 2,737 | * |
| Hay Asset Management LLC(3) | 2,737 | 2,737 | * |
| Ann Iseley(3) | 2,737 | 2,737 | * |

12

Table of Contents

| | Number of Shares Beneficially Owned Prior to the Offering | Number of Shares Offered by this Prospectus | Shares Beneficially Owned After the Offering | |
|--|--|--|---|----------------------|
| | | | Number of Shares | Percentage(1) |
| Selling Stockholders | | | | |
| Kersey Family Trust(3) | 2,737 | 2,737 | | * |
| Laurie Lombardi(3) | 2,737 | 2,737 | | * |
| Pratt & Whitney Division of United Technologies Corporation(3) | 2,737 | 2,737 | | * |
| Paul Sanders(3) | 2,737 | 2,737 | | * |
| Jian-Qun Wu(3) | 2,737 | 2,737 | | * |
| Lene AS(2) | 2,705 | 2,705 | | * |
| Venturos Holdings AS(2) | 2,380 | 2,380 | | * |
| Glastad Capital AS(2) | 2,380 | 2,380 | | * |
| David Fournier(4)(11) | 2,221 | 1,368 | 853 | * |
| The David R. Huber Grantor Retained Annuity Trust(2) | 2,139 | 2,139 | | * |
| Langdøla Invest AS(2) | 1,904 | 1,904 | | * |
| Asmund Slogedal(2) | 1,837 | 1,837 | | * |
| Gezina AS(2) | 1,817 | 1,817 | | * |
| Damac Technology Partners, LP(2) | 1,795 | 1,795 | | * |
| Bayview 2000, L.P.(2) | 1,795 | 1,795 | | * |
| Connecticut Innovations/Webster LLC(2) | 1,795 | 1,795 | | * |
| Grosvenor Venture Partners III, L.P.(2) | 1,596 | 1,596 | | * |
| Francis Bostick(3) | 1,368 | 1,368 | | * |
| Robert Crawford(3) | 1,368 | 1,368 | | * |
| L. Jan Didden(3) | 1,368 | 1,368 | | * |
| Thomas W. Engel(3) | 1,368 | 1,368 | | * |
| David Galas(3) | 1,368 | 1,368 | | * |
| Richard T. Jones(3) | 1,368 | 1,368 | | * |
| Paul Kaplan(3) | 1,368 | 1,368 | | * |
| Ruth O Connell(3) | 1,368 | 1,368 | | * |
| Anthony Rauseo(3) | 1,368 | 1,368 | | * |
| Robert A. Rubino(3) | 1,368 | 1,368 | | * |
| Xiaomin Zhao(3) | 1,368 | 1,368 | | * |
| Engelsen Invest AS(2) | 1,316 | 1,316 | | * |
| Wheatley Partners, L.P. (2) | 1,237 | 1,237 | | * |
| Svennevik Invest AS(2) | 1,198 | 1,198 | | * |
| HRLD Corporation(2) | 1,165 | 1,165 | | * |
| Mengshoel Invest AS(2) | 1,000 | 1,000 | | * |
| Wheatley Associates III, L.P. (2) | 925 | 925 | | * |
| Wheatley Foreign Partners III, L.P. (2) | 904 | 904 | | * |
| VPF CiDRA Investments, LLC(2) | 897 | 897 | | * |
| Damac Investors (XI) Inc. (2) | 897 | 897 | | * |
| Damac Investors (XVII) Inc. (2) | 897 | 897 | | * |
| Kane & Co. (2) | 897 | 897 | | * |

Edgar Filing: ILLUMINA INC - Form S-3

| | | | |
|--------------------------------------|-----|-----|---|
| Valhalla Capital, L.P. (2) | 897 | 897 | * |
| Langeland Mølle AS(2) | 855 | 855 | * |
| Velocity Equity Partners I, L.P. (2) | 814 | 814 | * |
| Vertex Capital II, LLC(2) | 805 | 805 | * |
| Ole Christian Sand(2) | 753 | 753 | * |
| James W. Wohlgemuth(2) | 718 | 718 | * |
| Selvaag Invest AS(2) | 718 | 718 | * |
| Steinar Engelsen(2) | 680 | 680 | * |
| Wheatley Partners II, L.P. (2) | 676 | 676 | * |

Table of Contents

| | Number of Shares Beneficially Owned Prior to the Offering | Number of Shares Offered by this Prospectus | Shares Beneficially Owned After the Offering | |
|---------------------------------------|--|--|---|----------------------|
| | | | Number of Shares | Percentage(1) |
| Selling Stockholders | | | | |
| Marc Weiss(2) | 646 | 646 | | * |
| Double Mako Investments, LLC(2) | 627 | 627 | | * |
| Tintoretto Investments, LLC(2) | 627 | 627 | | * |
| Haakon A. Sand(2) | 484 | 484 | | * |
| K. Nicolai Sand(2) | 484 | 484 | | * |
| Lillian E. Sand(2) | 484 | 484 | | * |
| O. Christian Sand(2) | 484 | 484 | | * |
| Anthony Ciulla(2) | 484 | 484 | | * |
| Bjorn Bjora(2) | 468 | 468 | | * |
| Werner Hein(2) | 449 | 449 | | * |
| Originators Investment Plan, L.P. (2) | 448 | 448 | | * |
| Glastad Invest AS(2) | 421 | 421 | | * |
| Aknaton(2) | 347 | 347 | | * |
| Furuholmen Invest AS(2) | 338 | 338 | | * |
| Huber Exemption Trust(2) | 322 | 322 | | * |
| Tore Mengshoel(2) | 318 | 318 | | * |
| MSD EC I, LLC(2) | 269 | 269 | | * |
| Eiken Invest 98 AS(2) | 269 | 269 | | * |
| Gjarm Invest 98 AS(2) | 255 | 255 | | * |
| Magne Nygaard(2) | 227 | 227 | | * |
| Vertex Capital III, LLC(2) | 179 | 179 | | * |
| Bencas Capital Partners, L.P.(2) | 179 | 179 | | * |
| Fin M. W. Caspersen(2) | 179 | 179 | | * |
| AIG Private Bank LTD(2) | 169 | 169 | | * |
| Eiken Invest 99 AS(2) | 165 | 165 | | * |
| James Chris Huber(2) | 161 | 161 | | * |
| Joaquin Garcia-Larrieu(2) | 161 | 161 | | * |
| Lowell M. Huber(2) | 161 | 161 | | * |
| Eiken Invest AS(2) | 146 | 146 | | * |
| Hands On Management AS(2) | 107 | 107 | | * |
| Wheatley Foreign Partners, L.P.(2) | 105 | 105 | | * |
| Eiken Invest 2000 AS(2) | 73 | 73 | | * |
| Daniel Chapey(2) | 58 | 58 | | * |
| Private Ventures LTD.(2) | 54 | 54 | | * |
| Mitchell P. Bartlett(2) | 48 | 48 | | * |
| James Stableford(2) | 44 | 44 | | * |
| William F. Hartfiel, III(2) | 44 | 44 | | * |
| Andreas Mollatt(2) | 18 | 18 | | * |
| Associates Investors LLC(2) | 11 | 11 | | * |

* Represents less than 1%

- (1) Based upon 40,232,431 shares of our common stock outstanding as of the close of business on May 18, 2005.
- (2) Approximately 16.4% of the shares beneficially owned prior to this offering and the shares offered by this prospectus were not issued to the selling stockholder, but to F. Kevin Didden, as stockholder representative, and are held in an escrow account pursuant to the terms of the Merger Agreement and an Escrow Agreement, dated as of April 8, 2005, among Illumina, Comerica Bank and F. Kevin Didden, as stockholder representative (the Escrow Agreement).

Table of Contents

- (3) Approximately 23.5% of the shares beneficially owned prior to this offering and the shares offered by this prospectus were not issued to the selling stockholder, but to F. Kevin Didden, as stockholder representative, and are held in an escrow account pursuant to the terms of the Merger Agreement and the Escrow Agreement.
- (4) Excluding the shares subject to options, approximately 23.5% of the shares beneficially owned prior to this offering and the shares offered by this prospectus were not issued to the selling stockholder, but to F. Kevin Didden, as stockholder representative, and are held in an escrow account pursuant to the terms of the Merger Agreement and the Escrow Agreement.
- (5) The number of shares beneficially owned prior to the offering includes 8,715 shares of our common stock subject to options currently exercisable or exercisable within 60 days of May 18, 2005.
- (6) The number of shares beneficially owned prior to the offering includes 2,824 shares of our common stock subject to options currently exercisable or exercisable within 60 days of May 18, 2005.
- (7) The number of shares beneficially owned prior to the offering includes 3,665 shares of our common stock subject to options currently exercisable or exercisable within 60 days of May 18, 2005.
- (8) The number of shares beneficially owned prior to the offering includes 2,759 shares of our common stock subject to options currently exercisable or exercisable within 60 days of May 18, 2005.
- (9) The number of shares beneficially owned prior to the offering includes 4,241 shares of our common stock subject to options currently exercisable or exercisable within 60 days of May 18, 2005.
- (10) The number of shares beneficially owned prior to the offering includes 2,017 shares of our common stock subject to options currently exercisable or exercisable within 60 days of May 18, 2005.
- (11) The number of shares beneficially owned prior to the offering includes 853 shares of our common stock subject to options currently exercisable or exercisable within 60 days of May 18, 2005.

Table of Contents

PLAN OF DISTRIBUTION

Shares of common stock covered hereby may be offered and sold from time to time by the selling stockholders. The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. The selling stockholders (i) may sell the shares being offered hereby (A) on The Nasdaq National Market, or otherwise at prices and at terms then prevailing or at prices related to the then current market price; or (B) in private sales at negotiated prices directly or through a broker or brokers, who may act as agent or as principal or by a combination of such methods of sale; (ii) subject to applicable law and our insider trading policy, may enter into derivative or other hedging transactions with financial institutions, which financial institutions may in turn engage in sales of common stock to hedge their position, deliver this prospectus in connection with some or all of those sales and use the shares being offered hereby to close out any short position created in connection with those sales; (iii) subject to applicable law and our insider trading policy, may sell the shares being offered hereby short using this prospectus and deliver common stock covered by this prospectus to close out such short positions, or loan or pledge common stock to financial institutions that in turn may sell such shares; and (iv) subject to applicable law and our insider trading policy, may pledge or grant a security interest in some or all of the shares being offered hereby to support a derivative or hedging position or other obligation and, if the selling stockholder defaults in the performance of its obligations, the pledges or secured parties may offer and sell the shares from time to time pursuant to this prospectus. The selling stockholders and any underwriter, dealer or agent who participate in the distribution of such shares may be deemed to be underwriters under the Securities Act of 1933 (the Securities Act), and any discount, commission or concession received by such persons might be deemed to be an underwriting discount or commission under the Securities Act. We have agreed to indemnify the selling stockholders against certain liabilities arising under the Securities Act and the selling stockholders have agreed to indemnify us against certain liabilities arising under the Securities Act.

Any broker-dealer participating in such transactions as agent may receive commissions from the selling stockholders (and, if acting as agent for the purchaser of such shares, from such purchaser). Usual and customary brokerage fees will be paid by the selling stockholders. Broker-dealers may agree with the selling stockholders to sell a specified number of shares at a stipulated price per share, and, to the extent such a broker-dealer is unable to do so acting as agent for the selling stockholders, to purchase as principal any unsold shares at the price required to fulfill the broker-dealer commitment to the selling stockholders. Broker-dealers who acquire shares as principal may thereafter resell such shares from time to time in transactions (which may involve crosses and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above) in the over-the-counter market, in negotiated transactions or by a combination of such methods of sale or otherwise at market prices prevailing at the time of sale or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such shares commissions computed as described above.

We have advised the selling stockholders that the anti-manipulation rules under the Securities Exchange Act of 1934 (the Exchange Act) may apply to sales of the shares offered hereby in the market and to the activities of the selling stockholders and their affiliates. The selling stockholders have advised us that during such time as the selling stockholders may be engaged in the attempt to sell shares registered hereunder, they will:

not engage in any stabilization activity in connection with any of our securities;

not bid for or purchase any of our securities or any rights to acquire our securities, or attempt to induce any person to purchase any of our securities or rights to acquire our securities other than as permitted under the Exchange Act;

not effect any sale or distribution of the shares offered hereby until after the prospectus shall have been appropriately amended or supplemented, if required, to set forth the terms thereof; and

effect all sales of the shares offered hereby in broker's transactions through broker-dealers acting as agents, in transactions directly with market makers, or in privately negotiated transaction where no broker or other third party (other than the purchaser) is involved.

The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares offered hereby against certain liabilities, including liabilities arising under the Securities Act. Any commissions paid or any discounts or concessions allowed to any such broker-dealers, and any profits received on the resale of such shares, may be deemed to be underwriting discounts and commissions under the Securities Act if

Table of Contents

any such broker-dealers purchase shares as principal. To the extent required, this prospectus may be amended from time to time to describe a specific plan of distribution.

In order to comply with the securities laws of certain states, if applicable, our common stock will be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states, the common stock may not be sold unless such shares have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and the sale of such shares complies with such exemption or qualification requirements.

We have agreed to use our commercially reasonable efforts to maintain the effectiveness of this registration statement with respect to the shares of common stock offered hereunder by the selling stockholders for such period as set forth in the Merger Agreement. No sales may be made pursuant to this prospectus after such period unless we amend or supplement this prospectus to indicate that we have agreed to extend such period of effectiveness. There can be no assurance that the selling stockholders will sell all or any of the shares of common stock offered hereunder.

LEGAL MATTERS

The validity of the common stock offered hereby will be passed upon for us by Heller Ehrman LLP.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedule included in our Annual Report on Form 10-K/A for the year ended January 2, 2005, and management's assessment of the effectiveness of our internal control over financial reporting as of January 2, 2005, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and schedule and management's assessment are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a Registration Statement on Form S-3 that we filed with the Securities and Exchange Commission. Certain information in the Registration Statement has been omitted from this prospectus in accordance with the rules of the Securities and Exchange Commission. We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission. You can inspect and copy the Registration Statement as well as reports, proxy statements and other information we have filed with the Securities and Exchange Commission at the Public Reference Room maintained by the Securities and Exchange Commission at 450 Fifth Street, NW, Washington, D.C. 20549. You can obtain copies from the public reference room of the Securities and Exchange Commission at 450 Fifth Street, NW, Washington, D.C. 20549 upon payment of certain fees. You can call the Securities and Exchange Commission at 1-800-732-0330 for further information about the public reference room. We are also required to file electronic versions of these documents with the Securities and Exchange Commission, which may be accessed through the Securities and Exchange Commission's World Wide Web site at <http://www.sec.gov>. Most of our Securities and Exchange Commission filings are also available to you free of charge at our web site at <http://www.illumina.com>.

Our common stock is quoted on The Nasdaq National Market. Reports, proxy and information statements and other information concerning Illumina, Inc. may be inspected at The Nasdaq Stock Market at 1735 K Street, NW,

Washington, D.C. 20006.

Table of Contents

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The Securities and Exchange Commission allows us to incorporate by reference certain of our publicly-filed documents into this prospectus, which means that information included in those documents is considered part of this prospectus. Information that we file with the Securities and Exchange Commission subsequent to the date of this prospectus will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the Securities and Exchange Commission under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, until the termination of this offering.

The following documents previously filed by us with the Securities and Exchange Commission are hereby incorporated by reference in this prospectus and made a part hereof:

Our Annual Report on Form 10-K for the year ended January 2, 2005, as filed with the SEC on March 8, 2005;

Amendment No. 1 to our Annual Report on Form 10-K/A, as filed with the SEC on March 29, 2005;

Amendment No. 2 to our Annual Report on Form 10-K/A, as filed with the SEC on April 28, 2005;

Our Quarterly Report on Form 10-Q for the quarterly periods ended April 3, 2005, as filed with the SEC on April 29, 2005;

Our Current Reports on Form 8-K, as filed with the SEC on February 22, 2005 (but only as to Item 1.01), March 3, 2005, April 14, 2005, April 15, 2005, and May 4, 2005, and our Current Report on Form 8-K/A, as filed with the SEC on February 24, 2005;

Our definitive proxy statement on Schedule 14A, as filed with the SEC on May 17, 2005;

The description of our common stock contained in our registration statement on Form 8-A filed with the SEC on April 14, 2000 under the Securities Exchange Act of 1934, as amended, including any amendment or report filed for the purpose of updating such description; and

The description of our preferred stock purchase rights contained in our registration statement on Form 8-A filed with the SEC on May 14, 2001 under the Securities Exchange Act of 1934, as amended, including any amendment or report filed for the purpose of updating such description.

All reports and other documents that we subsequently file under Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act prior to the filing of a post-effective amendment, which indicates that all securities offered under this registration statement have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this registration statement and to be a part of this registration statement from the date of filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference into this registration statement shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained in this registration statement or in any subsequently filed document which also is deemed to be incorporated by reference in this registration statement modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Upon written or oral request, we will provide without charge to each person to whom a copy of the prospectus is delivered a copy of the documents incorporated by reference herein (other than exhibits to such documents unless such exhibits are specifically incorporated by reference herein). You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: Illumina, Inc., 9885 Towne Centre Drive, San Diego, California

92121, attn: Corporate Secretary, (858) 202-4500.

We have authorized no one to provide you with any information that differs from that contained in this prospectus. Accordingly, you should only rely on the information contained or incorporated by reference in this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of the front cover of this prospectus.

Table of Contents**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution.**

Illumina will bear no expenses in connection with any sale or other distribution by the selling stockholders of the shares being registered other than the expenses of preparation and distribution of this registration statement and the prospectus included in this registration statement. Such expenses are set forth in the following table. All of the amounts shown except the SEC registration fee are estimates.

| | |
|---|-----------|
| Securities and Exchange Commission registration fee | \$ 1,801 |
| Accounting fees and expenses | 10,000 |
| Legal fees and expenses | 30,000 |
| Miscellaneous | 3,199 |
| Total: | \$ 45,000 |

Item 15. Indemnification of Officers and Directors.

We are subject to Section 145 of the Delaware General Corporation Law (Section 145). Section 145 permits indemnification of officers and directors of the Company under certain conditions and subject to certain limitations. Section 145 also provides that a corporation has the power to maintain insurance on behalf of our officers and directors against any liability asserted against such person and incurred by him or her in such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify him or her against such liability under the provisions of Section 145.

Article VI, Section 6.1, of our Bylaws provides for mandatory indemnification of our directors and officers and permissible indemnification of employees and other agents to the maximum extent not prohibited by the Delaware General Corporation Law. The rights to indemnity thereunder continue as to a person who has ceased to be a director, officer, employee or agent and inure to the benefit of the heirs, executors and administrators of the person. In addition, expenses incurred by a director or executive officer in defending any civil, criminal, administrative or investigative action, suit or proceeding by reason of the fact that he or she is or was a director or officer of (or was serving at our request as a director or officer of another corporation) shall be paid by us in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by us as authorized by the relevant section of the Delaware General Corporation Law.

As permitted by Section 102(b)(7) of the Delaware General Corporation Law, our Certificate of Incorporation provides that, pursuant to Delaware law, our directors shall not be personally liable for monetary damages for breach of the directors' fiduciary duty as directors to us and our stockholders. This provision in the Certificate of Incorporation does not eliminate the directors' fiduciary duty, and in appropriate circumstances equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each director will continue to be subject to liability for breach of the director's duty of loyalty for acts or omission not in good faith or involving international misconduct, for knowing violations of law, for actions leading to improper personal benefit to the director, and for payment of dividends or approval of stock repurchases or redemptions that are unlawful under Section 174 of the Delaware General Corporation Law. The provision also does not affect a director's

responsibilities under any other law, such as the federal securities laws or state or federal environmental laws.

We have entered into indemnification agreements with each of our directors and executive officers. Generally, the indemnification agreements attempt to provide the maximum protection permitted by Delaware law as it may be amended from time to time. Moreover, the indemnification agreements provide for certain additional indemnification. Under such additional indemnification provisions, however, an individual will not receive indemnification for judgments, settlements or expenses if he or she is found liable to us (except to the extent the court determines he or she is fairly and reasonably entitled to indemnity for expenses), for settlements not approved

II-1

Table of Contents

by us or for settlements and expenses if the settlement is not approved by the court. The indemnification agreements provide for us to advance to the individual any and all reasonable expenses (including legal fees and expenses) incurred in investigating or defending any such action, suit or proceeding. In order to receive an advance of expenses, the individual must submit to us copies of invoices presented to him or her for such expenses. Also, the individual must repay such advances upon a final judicial decision that he or she is not entitled to indemnification. We also maintain directors and officers liability insurance.

Item 16. Exhibits.

The following documents are filed herewith (unless otherwise indicated) and made a part of this registration statement.

| Exhibit | Description of Document |
|----------------|---|
| 2.1(1) | Form of Merger Agreement between Illumina, Inc., a California corporation, and Illumina, Inc., a Delaware corporation. |
| 3.3(2) | 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) | Amended and Restated Investors Rights Agreement, dated November 5, 1999, by and among the Registrant and certain stockholders of the Registrant. |
| 4.3(2) | Rights Agreement, dated as of May 3, 2001, between the Company and Equiserve Trust Company, N.A. |
| 5.1 | Opinion of Heller Ehrman LLP. |
| 23.1 | Consent of Independent Registered Public Accounting Firm. |
| 23.2 | Consent of Heller Ehrman LLP (contained in Exhibit 5.1). |
| 24.1 | Power of Attorney (included on the signature page of this registration statement). |
| <hr/> | |
| (1) | Incorporated by reference to the same numbered exhibit filed with our Registration Statement on Form S-1 (333-33922) filed April 3, 2000, as amended. |
| (2) | Incorporated by reference to the same numbered exhibit filed with our Registration Statement on Form 8-A (000-30361) filed May 14, 2001. |

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

II-2

Table of Contents

- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offering therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 15 above, or otherwise, Registrant has been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Table of Contents**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the city of San Diego, state of California, on May 20, 2005.

ILLUMINA, INC.

By: /s/ JAY T. FLATLEY
 Jay T. Flatley
 President, Chief Executive Officer,
 acting Chief Financial Officer and
 Director

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Jay T. Flatley and John R. Stuelpnagel, and each of them acting individually, as his true and lawful attorneys-in-fact and agents, each with full power of substitution, for him in any and all capacities, to sign any and all amendments to this registration statement on Form S-3 and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, with full power of each to act alone, 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 for 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 his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement on Form S-3 has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

| Signature | Title | Date |
|---|---|--------------|
| <u>/s/ JAY T. FLATLEY</u> Jay T. Flatley | President, Chief Executive Officer, acting Chief Financial Officer and Director (Principal Executive Officer and Principal Accounting and Financial Officer) | May 20, 2005 |
| <u>/s/ JOHN R. STUELPNAGEL</u> John R. Stuelpnagel, D.V.M. | Senior Vice President, Chief Operating Officer and Director | May 20, 2005 |
| <u>/s/ DANIEL M. BRADBURY</u> Daniel M. Bradbury | Director | May 20, 2005 |
| <u>/s/ KARIN EASTHAM</u> Karin Eastham | Director | May 20, 2005 |

| | | |
|---------------------------------|----------|--------------|
| <u>/s/ PAUL GRINT</u> | Director | May 20, 2005 |
| Paul Grint, M.D. | | |
| <u>/s/ WILLIAM H. RASTETTER</u> | Director | May 20, 2005 |
| William H. Rastetter, Ph. D. | | |
| <u>/s/ DAVID R. WALT</u> | Director | May 20, 2005 |
| David R. Walt, Ph. D. | | |

II-4

Table of Contents

EXHIBIT INDEX

| Exhibit | Description of Document |
|----------------|---|
| 2.1(1) | Form of Merger Agreement between Illumina, Inc., a California corporation, and Illumina, Inc., a Delaware corporation. |
| 3.3(2) | 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) | Amended and Restated Investors Rights Agreement, dated November 5, 1999, by and among the Registrant and certain stockholders of the Registrant. |
| 4.3(2) | Rights Agreement, dated as of May 3, 2001, between the Company and Equiserve Trust Company, N.A. |
| 5.1 | Opinion of Heller Ehrman LLP. |
| 23.1 | Consent of Independent Registered Public Accounting Firm. |
| 23.2 | Consent of Heller Ehrman LLP (contained in Exhibit 5.1). |
| 24.1 | Power of Attorney (included on the signature page of this registration statement). |
| <hr/> | |
| (1) | Incorporated by reference to the same numbered exhibit filed with our Registration Statement on Form S-1 (333-33922) filed April 3, 2000, as amended. |
| (2) | Incorporated by reference to the same numbered exhibit filed with our Registration Statement on Form 8-A (000-30361) filed May 14, 2001. |