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RESEARCH FRONTIERS INC  
Form 10-K  
March 22, 2007

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 or 15(d) of  
THE SECURITIES AND EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2006 Commission File Number 1-9399

RESEARCH FRONTIERS INCORPORATED  
(Exact name of registrant as specified in its charter)

DELAWARE  
(State or other jurisdiction of  
incorporation or organization)

11-2103466  
(I.R.S. Employer  
Identification No.)

240 CROSSWAYS PARK DRIVE  
WOODBURY, NEW YORK  
(Address of principal executive offices)

11797-2033  
(Zip Code)

Registrant's telephone number, including area code (516) 364-1902

Securities registered pursuant to Section 12(b) of the Act:

Title of Class	Name of Exchange on Which Registered
Common Stock, \$0.0001 Par Value	The NASDAQ Stock Market

Securities registered pursuant to Section 12(g) of the Act:  
None  
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer,  
as defined in Rule 405 of the Securities Act.

Yes [ ] No [X]

Indicate by check mark if the registrant is not required to file reports  
pursuant to Section 13 or Section 15(d) of the Act.

Yes [ ] No [X]

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item  
405 of Regulation S-K is not contained herein, and will not be contained,  
to the best of registrant's knowledge, in definitive proxy or information  
statements incorporated by reference in Part III of this Form 10-K or any  
amendment to this Form 10-K. [X]

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

Large accelerated filer[] Accelerated filer[] Non-accelerated filer[X]

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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes [ ] No [X]

As of March 22, 2007 there were 15,318,601 shares of Research Frontiers Incorporated common stock outstanding. The aggregate market value of the voting and non-voting common equity held by non-affiliates was \$67,624,682 computed in accordance with the rules of the SEC by reference to the closing price of the Company's common stock as of June 30, 2006 which was \$5.18. In making this computation, all shares known to be owned by directors and executive officers of the Company and all shares known to be owned by other persons holding in excess of 5% of the Company's common stock have been deemed held by "affiliates" of the Company. Nothing herein shall prejudice the right of the Company or any such person to deny that any such director, executive officer, or stockholder is an "affiliate."

### PART I

#### ITEM 1. BUSINESS

##### General

Research Frontiers Incorporated ("Research Frontiers" or the "Company") was incorporated in New York in 1965 and reincorporated in Delaware in 1989. Research Frontiers' business is to develop and license our suspended particle technology for controlling the amount of light passing through a device. Such suspended particle devices are often referred to as "SPDs," "light valves," or "SPD-Smart " products.

SPDs use microscopic light-absorbing particles that are either in a liquid suspension or a film. The microscopic particles align when an electrical voltage is applied. This permits light to pass through the device, and allows the amount of light to be controlled. The first light valve of this type was invented by Dr. Edwin Land, founder of Polaroid Corporation, in the 1930s. Since 1965, Research Frontiers has been actively working to develop and license its own technology, which it protects using patents, trade secrets and know-how. Although patent and trade secret protection is not a guarantee of commercial success, Research Frontiers currently has approximately 470 patents and pending patent applications throughout the world protecting its technology.

As a result of our efforts over the years, Research Frontiers Incorporated has become the world's leader in suspended-particle-device development and research, and licenses its light-control technology to other companies. Currently, our 34 licensees are categorized into three main areas: materials for making films (emulsions); film; and end-products. Our emulsion makers produce and combine the necessary materials (i.e. SPD particles and various liquids and special polymers) from which SPD films are made. The film makers use a thin layer of emulsion, which is coated between two sheets of plastic film coated with a transparent conductive coating, which emulsion is then partly solidified to form an SPD film that allows users to control the amount of light passing through such film. The end-product licensees then incorporate such SPD light-control film into a variety of SPD-Smart products or make electronic systems to control such SPD-Smart products.

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The past several years have been important for Research Frontiers as we moved from being a company with a technology under development to a company with products using our technology being sold by our licensees. The technology has also received some prestigious awards, including the Best of What's New Award for home technology products for 2002 from Popular Science. It was also named one of the top new technologies for 2002 by the Society of Automotive Engineers and received the 2007 North American Frost & Sullivan Award for Excellence in Technology.

SPD-Smart windows have been installed in business and commercial aircraft, as well as in architectural, automotive and appliance glass projects. SPD technology is an "enabling" technology cutting across many industries which has wide commercial applications in many types of products where variable light transmission is desired, such as:

- "smart" windows, skylights, partitions, doors, and
- sunshades for the architectural, aircraft, marine, automotive and appliance industries;
- variable light transmission sunglasses, goggles, visors and other eyewear;
- self-dimmable automotive sunroofs, sunvisors and rear-view mirrors; and
- flat panel information displays for use in billboards, scoreboards, point-of-purchase advertising displays, traffic signs, computers, televisions, telephones, PDAs and other electronic instruments.

Various licensees of Research Frontiers have developed SPD-Smart windows and other products. Several of our licensees have already sold aircraft, architectural, marine and automotive windows, skylights and doors, as well as glass doors for appliances using SPD technology. Also, prototypes of flat panel displays, eyewear, and self-dimming automotive rear-view mirrors have been developed. These prototypes demonstrate the feasibility and operation of the products they relate to, but need additional product design, engineering or testing before commercial products are introduced. Some of our licensees consider the exact stage of development, product introduction strategies and timetables, and other plans to be proprietary or secret, and as such cannot be disclosed by the Company until such licensees make their own public announcements or product launches. Since 2002, marketing campaigns and product launches by our licensees have been announced under the indicated trademarks for their SPD-Smart products:

Licensee	Trademark
Cricursa Cristales Curvados,SA	Cri-Regulite
Dainippon Ink and Chemicals	Confoview
Innovative Glass Corporation	E-Glass
Inspectech Aero Service, Inc.	SPD-Equipped,I-Shade, SPD-Shade,e-Shade
Isoclima S.p.A.	ChromaLite
Kerros Limited	IntelliTint
SPD Control Systems Corp.	The Systems Behind the Glass, Changing the Way You View Windows
SPD Technologies, Inc.	InfiniTint,New-View, Smart-Shade
SPD Systems Inc.	Health Smart SPD Window, VectorLux,InstaTint,

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ThermoView Industries                      PowerTint  
Alter-Lite

In addition, Research Frontiers introduced various marketing programs under the following trademarks: SPD-Smart, SPD-SmartGlass, VaryFast, SmartGlass, The View of the Future - Everywhere you Look, Powered by SPD, and Visit SmartGlass.com - to change your view of the world.

Our licensee InspecTech Aero Service Inc. reported that it has received FAA certification for, and has already installed SPD-Smart windows on, various aircraft. InspecTech reports having installed or currently engineered SPD-Smart windows for the following aircraft:

- Airbus A319, A320 and other aircraft
- Boeing 737, 747, 757, BBJ and other aircraft
- Bombardier Challenger 601, 604
- Bombardier Global Ex
- Bombardier Learjet 24, 25, 31, 35, 36, 45, 55, 60
- Cessna Citation I, II, III
- Cessna Conquest I, II
- Cessna Citations 525, 525A, 550, Excel, 5 and CX
- Dassault Falcon 10, 50
- EADS Eurocopter EC 155
- Gulfstream (all models)
- Piaggio P180 Avanti, and Pilatus PC-12
- Raytheon Beechjet
- Raytheon Hawker 700, 800
- Raytheon King Air 90, 100, 200, 350
- Sikorsky S-92 Helicopter
- Bell 430 Helicopter

Starting in 2003, the number of aircraft incorporating window shades using SPD-Smart technology increased, and the number of additional aircraft for which SPD-Smart electronic window shades have been designed and engineered also increased. In addition, several of the world's largest jet manufacturers have announced their interest to include electronic smart window shades in their aircraft. These electronic window shades may use SPD technology, or may use other technologies such as electrochromic technology or electro-mechanical window shades. Project architects and developers have begun to specify more SPD-Smart glass in their projects, and both the number and size of these projects is increasing. Also, starting in late 2003, certain automakers have begun to incorporate SPD-Smart glass in production and concept vehicles, with some of these concept vehicles being exhibited at major auto shows. There is a growing trend towards using more glass in architectural and automotive applications, including the introduction of panoramic roof systems and larger sunroofs for transportation vehicles. SPD-Smart technology can provide effective shading, glare control and heat management solutions for these larger glass areas. SPD-Smart windows have also begun to be used in yachts as well. The Company has also seen the adoption rate in terms of number of licensees, as well as the size of the organizations becoming licensees, increase. Also, products using SPD-Smart technology continue to be exhibited at trade shows, conferences, and industry events, with such products not only being exhibited by our licensees, but also by their customers and by original equipment manufacturers. While there can be no assurance that these trends will continue, to the

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extent that they do continue, they each should have a beneficial effect on future fee income for the Company. In April 2004, SPD Inc., which was at that time, the sole manufacturer of SPD-Smart light control film and a subsidiary of Hankuk Glass Industries, a former licensee of the Company, announced that it was ceasing its business activities. Therefore, sales of SPD-Smart products by licensees of the Company during most of 2004, 2005 and 2006 were curtailed as these licensees filled customer orders out of existing inventory of SPD-Smart light control film made by SPD Inc. while awaiting production of the next-generation emulsion-based SPD-Smart light control film with improved performance characteristics. On February 1, 2007, Hitachi Chemical Company jointly announced with Innovative Glass Corp. that Hitachi Chemical was shipping rolls of wide-width SPD-Smart film from its high-capacity coating lines in Ibaraki, Japan. On February 9, 2007, Raytheon Aircraft Company announced that it was offering SPD-Smart electronic window shades manufactured by InspecTech Aero Service on Raytheon's Beechcraft King Air aircraft.

The following table summarizes Research Frontiers' existing license agreements and lists the year these agreements were entered into:

Licensee	Products Covered	Territory
Air Products and Chemicals, Inc.	SPD emulsions and films for other licensees (2003)	Worldwide
American Glass Products	Architectural and automotive windows (2002)	Worldwide (except Korea)
Asahi Glass Company	SPD-Smart automotive windows and sunroofs (2006)	Worldwide
AGC Automotive Americas (f/k/a AP Technoglass Co.)	Sunroof glass for other licensees (2001)	Worldwide
Avery Dennison Corp.	SPD displays (2001)	Worldwide
BOS GmbH	Variable light transmission SPD sunshades and sunvisors. (2002)	Worldwide
BRG Group, Ltd.	Architectural and automotive windows (2002)	Worldwide (except Korea)
Cricursa Cristales Curvados	Architectural and automotive windows (2002)	Worldwide (except Korea)
Custom Glass Corporation	Windows and sunroofs for mass transit trains/busses; SPD film lamination for other licensees (2003)	Worldwide (except Korea)
Dainippon Ink and Chemicals Incorporated	SPD emulsions (1999) and films (2006) for other licensees	Worldwide
E.I. DuPont de Nemours	Architectural and automotive windows; SPD emulsions and films for other licensees (2004)	Worldwide
Film Technologies Int'l	SPD film for other licensees and prospective licensees (2001)	Worldwide

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Glaverbel, S.A.	Automotive vehicle rear-view mirrors, transportation vehicle sunvisors, and architectural and automotive windows (1996)	Worldwide (except Korea for windows)
Global Mirror GmbH	Rear-view mirrors and sunvisors (1999)	Worldwide
Hitachi Chemical Co.,Ltd	SPD emulsions and films for other licensees (1999)	Worldwide
Innovative Glass Corp.	Architectural windows (2003)	US, Canada, and Mexico
InspecTech Aero Service	Aircraft and marine windows and cabin dividers (2001)	Worldwide (except Korea)
Isoclima S.p.A.	Architectural and automotive windows; SPD emulsion and film for other licensees (2002)	Worldwide (except Korea)
Kerros Limited	Automotive windows and sunroofs (2003)	Worldwide (except Korea) for aftermarket and UK only for OEMs
Laminated Technologies Inc.	SPD film lamination for other licensees (2002)	Worldwide
Leminur Limited	Architectural windows (2003)	Russia and Countries of former Soviet Union
N.V. Bekaert S.A (acquired from Material Sciences Corp.)	Architectural and automotive windows, SPD film for other licensees, prospective licensees and architectural and automotive window companies (1997)	Worldwide
Nippon Sheet Glass Co., Ltd	SPD film for other licensee (2004)	Worldwide
Pilkington plc	SPD film lamination for other licensee (2004)	Worldwide
Polaroid Corporation	SPD emulsions and films for other licensees (2000)	Worldwide
Prelco Inc.	Architectural windows, train and bus windows (2004)	US, Canada, and Mexico
Saint-Gobain Glass France	Architectural windows, automotive and other transportation vehicle windows (other than aircraft and spacecraft), kitchen and laundry home appliance windows, and automotive sunvisors and rear-view mirrors for cars, SUVs, light trucks and other transportation vehicles (other than as original equipment mirrors on heavy trucks, busses, construction vehicles, firetrucks and other vehicles in Class 5-8 or weighing over 16,000 pounds) (2003)	Worldwide (except Korea)

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SmartGlass International Ltd	Architectural windows (2007)	Ireland, United Kingdom
SPD Control Systems Corp	Electronics and building control systems (2005)	Worldwide
SPD Technologies, Inc. (f/k/a Razor's Edge Technologies, Inc.)	Architectural windows (2002)	Worldwide (except Korea)
SPD Systems, Inc.	Architectural, appliance and marine windows (2002)	Worldwide (except Korea)
ThermoView Industries, Inc.	Architectural windows (2000)	Worldwide (except Korea)
Traco, Inc.	Architectural windows (2003)	Worldwide (except Korea)

Licensees of Research Frontiers who incorporate SPD technology into end-products will pay Research Frontiers a royalty of 5-15% of net sales of licensed products under license agreements currently in effect, and may also be required to pay Research Frontiers fees and minimum annual royalties. Licensees who sell components (such as SPD emulsion or film) to other licensees of Research Frontiers do not pay a royalty on such sale and Research Frontiers will collect such royalty from the licensee incorporating such components into their own SPD-Smart end-products. Research Frontiers' license agreements typically allow the licensee to terminate the license after some period of time, and give Research Frontiers only limited rights to terminate before the license expires. The licenses granted by the Company are non-exclusive and generally last as long as our patents remain in effect. Due to their bankruptcy filings or other termination of their general business activities or other reasons, the Company does not believe that Polaroid, Kerros, ThermoView, SmartGlass Ireland, BRG, and SPD Technologies are pursuing any business activities with respect to SPD technology. Some of the Company's other licensees are currently inactive with respect to SPD technology, but may hereafter become active again. Global Mirror's license restricts new licenses from being granted in the truck mirror original equipment market for a period of time if certain sales milestones are met with respect to commercial vehicles in Classes 5 through 8 with gross vehicle weights in excess of 16,000 pounds. To date, the Company has not generated sufficient revenue from its licensees to profitably fund its operations.

Although the Company believes based upon the status of current negotiations that additional license agreements with third parties will be entered into, there can be no assurance that any such additional license agreements will be consummated, or the extent that any current or future licensee of the Company will produce or sell commercial products using the Company's technology or generate meaningful revenue from sales of such licensed products.

The Company plans to continue to exploit its SPD light valve technology by entering into additional license and other agreements with end-product manufacturers such as manufacturers of flat glass, flat panel displays, automotive products, and with other interested companies who may wish to acquire rights to manufacture and sell the Company's proprietary emulsions and films. The Company's plans also call

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for further development of its SPD light valve technology and the provision of additional technological and marketing assistance to its licensees to develop commercially viable products using SPD technology and expand the markets for such products. The Company cannot predict when or if new license agreements will be entered into or the extent to which commercial products will result from its existing or future licensees because of the risks inherent in the developmental process and because commercialization is dependent upon the efforts of its licensees as well as on the continuing research and development efforts of the Company.

On March 22, 2007 the Company had eleven full-time employees, four of whom are technical personnel, and the rest of whom perform legal, marketing, investor relations, and administrative functions. Of these employees, one has obtained a doctorate in chemistry, one has a masters in chemistry, one has extensive industrial experience in electronics and electrical engineering, and one has majored in physics. Three employees also have additional postgraduate degrees in business administration, including one doctorate in organization and management. Also the Company's suppliers and licensees have people on their teams with advanced degrees in a number of areas relevant to the commercial development of products using the Company's technology. The success of the Company is dependent on, among other things, the services of its senior management, the loss of whose services could have a material adverse effect upon the prospects of the Company.

The Company believes that its SPD light valve technology has certain performance advantages over other technologies for so-called "smart windows," windows which electrically vary the amount of light passing through them, and automatically self-dimmable automotive rear-view mirrors.

Variable light transmission technologies can be classified into two basic types: "active" technologies that can be controlled electrically by the user either automatically or manually, and "passive" technologies that can only react to ambient environmental conditions such as changes in lighting or temperature. One type of passive variable light transmission technology is photochromic technology; such devices change their level of transparency in reaction to external ultra-violet radiation. As compared to photochromic technology, the Company's technology permits the user to adjust the amount of light passing through the viewing area of the device rather than merely reacting to external radiation. In addition, the reaction time necessary to change from light to dark with SPDs can be almost instantaneous, as compared to the much slower reaction time for photochromic devices. Unlike SPD technology, photochromic technology switches very slowly and does not function well at the high and low ends of the temperature range in which smart windows and other devices are normally expected to operate.

The active, user-controllable technologies are sometimes referred to as "smart" technologies. These active technologies are far more useful because they can be controlled electrically by a user with a manual adjustment or automatically when coupled with a timer or sensing device such as a photocell, motion detector or thermostat. There are three main types of active devices which are compared below:

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- Electrochromic devices (EC)
- Liquid crystal devices (LC)
- Suspended-particle devices (SPD)

Electrochromic Technology: When compared to electrochromic windows and rear-view mirrors, which use a direct current voltage to alter the molecular structure of electrochromic materials (which can be in the form of either a liquid, gel or solid film) causing the material to darken, SPDs have numerous potential performance, manufacturing and cost advantages. In comparing the Company's SPD light valves to electrochromic technologies, SPDs are expected to have some or all of the following advantages:

- faster response time
- consistent switching speed regardless of size of viewing area
- lower estimated costs
- more reliable performance over a wider temperature range
- capability of achieving darker off-states
- default state (state requiring no power) is dark, maximizing solar heat gain benefits
- lower current drain
- higher estimated battery life in applications where batteries are used
- no "iris effect" (where light transmission changes first occur at the outer edges of a window or mirror and then work their way toward the center) when changing from clear to dark and back again
- ability to be able to "tune" intermediate light-transmission states
- SPD technology is a film-based technology that can be applied to plastic as well as glass, and which can be applied to curved as well as flat surfaces.

Many companies with substantially greater resources than Research Frontiers such as 3M, Asahi Glass, Gentex Corp., Pilkington, PPG Industries, Saint-Gobain Glass and other large corporations have pursued or are pursuing projects in the electrochromic area. Some of these companies have reportedly discontinued or substantially curtailed their work on electrochromics due to technical problems and issues relating to the expense of these technologies. At least four companies, Saint-Gobain Glass, Sage Electrochromics, Inc., Gentex Corp. and PPG Industries are currently actively working to commercialize electrochromic window products.

Liquid Crystal Technology: To date, the main types of liquid crystal smart windows have been produced by Taliq Corp. (a subsidiary of Raychem Corp. which has since discontinued its liquid crystal operations and licensed its technology to others), Asahi Glass Co., Nippon Sheet Glass, Saint-Gobain Glass, Polytronix, Inc., DMDDisplays and 3M (which has also reportedly discontinued its liquid crystal film making operations). These windows are expensive and only change from a cloudy, opaque milky-white to a clear state, are hazy when viewed at an angle and have no useful intermediate states. As compared to liquid crystal windows, SPD smart windows should:

- be less expensive to produce
- have less haze

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- operate over a wider temperature range
- use less power
- absorb and shade light, rather than simply scattering it
- permit an infinite number of intermediate states between a transparent state and a dark blue state, rather than being just "on" or "off" like LC windows.

In the flat panel display market, the Company also expects to compete against various display technologies that are currently being used commercially. In particular, the Company expects its SPD technology to compete on the basis of the performance characteristics with liquid crystal displays ("LCDs") and organic light emitting diodes ("OLEDs"). An LCD is generally similar in construction to an SPD display, but instead of a liquid or film suspension, it utilizes an organic material called a liquid crystal which, although comprised of molecules that flow like a liquid, has some of the characteristics of solid crystals. Like SPD displays, LCDs are "passive" devices which do not generate light, but merely reflect or modulate existing light. OLEDs emit light rather than transmit it, and unlike LCDs but similar to SPD displays, OLEDs promise to have wide viewing angles and low power consumption. However, several technological and manufacturing hurdles remain in the production of OLEDs including limited life expectancy, sensitivity to degradation from exposure to air and water, and cost. The market for flat panel displays was estimated by others to have been approximately \$86 billion for 2006. Because of further development work to be done in this area, the Company cannot estimate when its licensees may begin to penetrate the flat panel display market.

The Company believes that its SPD light valves and related technology have significant advantages over existing display devices and related technology. In comparison to existing twisted nematic type LCDs, the Company's SPD displays are believed to have:

- higher contrast and brightness
- a wider angle of view
- lower estimated production costs
- a less complex fabrication procedure
- the ability to function over a wider temperature range
- the ability to make displays without using sheet polarizers or alignment layers
- lower light loss and a corresponding reduction in backlighting requirements.

With respect to other types of displays which emit their own light, such as light-emitting diodes (LEDs) and cathode ray tubes (CRTs), the Company's SPD light valves should have the advantages of lower power consumption and make possible larger displays that are easier to read in bright light.

LCDs and other types of displays, liquid crystal windows, as well as electrochromic self-dimmable rear-view mirrors, are already on the market, whereas products incorporating SPD technology (as well as electrochromic windows) have only begun to appear in the marketplace, so long-term durability and performance of SPD light valves have not yet been fully ascertained. The companies manufacturing LCD and other display devices, liquid crystal windows, and electrochromic self-dimmable rear-view mirrors and windows, have substantially

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greater financial resources and manufacturing experience than the Company. There is no assurance that comparable systems having the same advantages of the Company's SPD light valves could not be developed by competitors at a lower cost or that other products could not be developed which would render the Company's products difficult to market or technologically or otherwise obsolete.

In each of the last three fiscal years the Company has devoted substantially all of its time to the development of one class of products, namely SPD light control technology, and therefore revenue analysis by class is not provided herein.

The Company does not believe that future sales will be seasonal in any material respect. Due to the nature of the Company's business operations and the fact that the Company is not presently a manufacturer, there is no backlog of orders for the Company's products.

The Company believes that compliance with federal, state and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, will not have a material effect upon the capital expenditures, earnings and competitive position of the Company. The Company has no material capital expenditures for environmental control facilities planned for the remainder of its current fiscal year or its next succeeding fiscal year.

### Research and Development

As a result of the Company's research and development efforts, the Company believes that its SPD light valves are now, or with additional development will become, usable in a number of commercial products. Such products may include one or more of the following fields: "smart" windows, variable light transmission eyewear such as sunglasses and goggles, self-dimmable automotive sunroofs, sunvisors and mirrors, and instruments and other information displays that use digits, letters, graphic images, or other symbols to supply information, including scientific instruments, aviation instruments, automobile dashboard displays and, if certain improvements can be made in various features of the Company's SPD light valves, portable computer displays and flat panel television displays. The Company believes that most of its research and development efforts have applicability to products that may incorporate the Company's technology. Based upon the current SPD-Smart products being prepared for sale by various of its licensees, the Company believes that the state of development of its technology is sufficiently advanced, but that further improvements will result in accelerated market penetration. The Company intends to continue its research and development efforts for the foreseeable future to improve its SPD light valve technology and thereby assist our licensees in the product development, sales and marketing of various existing and new SPD-Smart products.

During the past year, the Company has made significant advances relating to materials to enable (1) improved stability of SPD emulsions, (2) a wide range of light transmission, and (3) improved film adhesion and cohesion.

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The Company has devoted most of the resources it has heretofore expended to research and development activities with the goal of producing commercially viable light valves and already has developed working prototypes of its SPD light valves for several different applications, with primary emphasis on smart windows for various applications.

Research Frontiers' main goals in its research and development are:

- developing wider ranges of light transmission and quicker switching speeds;
- developing different colored particles;
- reducing the voltage required to operate SPDs; and
- obtaining data and developing improved materials regarding environmental stability and longevity.

Research Frontiers incurred approximately \$1,171,000, \$1,392,000, and \$1,683,000 during the years ended December 31, 2006, 2005, and 2004, respectively, for research and development. Research Frontiers plans to engage in substantial continuing research and development activities.

### Patents and Proprietary Information

The Company has 32 United States patents in force, and six United States patent applications are pending. The Company's United States patents expire at various dates from 2008 through 2023. The Company has approximately 229 issued foreign patents and 205 foreign and international patent applications pending. The Company's foreign patents expire at various dates from 2008 through 2022. The Company believes that its SPD light valve technology is adequately protected by its patent position and by its proprietary technological know-how. However, the validity of the Company's patents has never been contested in any litigation. To a lesser extent, the Company relies on trade secrets and nondisclosure agreements to protect its technology. The Company generally requires any employee, consultant, or licensee having access to its confidential information to execute an agreement whereby such person agrees to keep such information confidential.

### Rights Plan

In February 2003, the Company's Board of Directors adopted a Stockholders' Rights Plan and declared a dividend distribution of one Right for each outstanding share of Company common stock to stockholders of record at the close of business on March 3, 2003. Subject to certain exceptions listed in the Rights Plan, if a person or group has acquired beneficial ownership of, or commences a tender or exchange offer for, 15% or more of the Company's common stock, unless redeemed by the Company's Board of Directors, each Right entitles the holder (other than the acquiring person) to purchase from the Company \$120 worth of common stock for \$60. If the Company is merged into, or 50% or more of its assets or earning power is sold to, the acquiring company, the Rights will also enable the holder (other than the acquiring person) to purchase \$120 worth of common stock of the acquiring company for \$60. The Rights will expire at the close of business on February 18, 2013, unless the Rights Plan is extended by the Company's Board of Directors or unless the Rights are earlier redeemed by the

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Company at a price of \$.0001 per Right. The Rights are not exercisable during the time when they are redeemable by the Company. The above description highlights some of the features of the Company's Rights Plan and is not a complete description of the Rights Plan. A more detailed description and a copy of the Rights Plan is available from the Company upon request.

### ITEM 1A. RISK FACTORS

In addition to the other information in this Annual Report on Form 10-K, you should carefully consider the following factors in evaluating us and our business. This Annual Report contains, in addition to historical information, forward-looking statements that involve risks and uncertainties. Our actual results could differ materially. Factors that could cause or contribute to such differences include, but are not limited to, those discussed below, as well as those discussed elsewhere in this Annual Report, including the documents incorporated by reference.

There are risks associated with investing in companies such as ours who are engaged in research and development. In addition to risks which could apply to any company or business, you should also consider the business we are in and the following:

Research Frontiers has a history of operating losses, expects to incur additional losses in the future, and consequently will need additional funds in the future to continue its operations. To date, Research Frontiers has lost money, and we expect to lose money in the foreseeable future. Because we expect that our future revenues will consist primarily of license fees (which have not been significant to date), unless our licensees produce and sell products using our technology, Research Frontiers will not be profitable. There is no guarantee that we will ever be profitable. Since Research Frontiers was started in 1965 through December 31, 2006, its total net loss was \$62,236,531. Our net loss was \$3,303,633, \$3,747,532 and \$4,262,741 in 2006, 2005, and 2004, respectively.

We have funded our operations by selling our common stock to investors. If we need additional money, there is no guarantee that it will be available when we need it, or on favorable terms. Without giving effect to the raising of additional capital in the future, the Company would have to raise additional capital no later than towards the end of 2009 if operations, including research and development and marketing, are to be maintained at current levels. Eventual success of the Company and generation of positive cash flow will be dependent upon the extent of commercialization of products using the Company's technology by the Company's licensees and payments of continuing royalties on account thereof.

Research Frontiers depends upon the activities of its licensees in order to be profitable. We do not directly manufacture or market products using SPD technology. Although a variety of products have been sold by our licensees, and since it is up to our licensees to decide when and if they will introduce products using SPD technology, we cannot predict when and if our licensees will generate substantial sales of such products. Research Frontiers' SPD technology is currently licensed to 34 companies. Other companies are also evaluating the technology for use in various products. In the past, some

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companies have evaluated our technology without proceeding further. Also, we do not intend to manufacture products using SPD technology. Instead we intend to continue to license our technology to manufacturers of end products, films and emulsion. We expect that our licensees would be primarily responsible for marketing and manufacturing, but we are also engaging in market development activities.

Products using SPD technology have only recently been introduced into the marketplace. Developing products using new technologies can be risky because problems, expenses and delays frequently occur. Research Frontiers cannot control whether or not its licensees will develop SPD products. Some of our licensees appear to be more active than others, some appear to be better capitalized than others, and some licensees appear to be inactive. There is no guarantee when or if our licensees will successfully produce any commercial product using SPD technology.

SPD technology is the only technology Research Frontiers works with, so that our success depends upon the viability of SPD technology which has yet to be proven. We have not fully ascertained the performance and long-term reliability of our technology, and therefore there is no guarantee that our technology will successfully be incorporated into all of the products which we are targeting for use of SPD technology. We expect that different product applications for SPD technology will have different performance and reliability specifications. For example, SPD eyewear requiring batteries may need to use lower voltages than SPD windows used in homes or offices, yet may not need to last as long or be exposed to as harsh an environment. We expect that our licensees will primarily be responsible for reliability testing, but that we may also continue to do reliability testing so that we can more effectively focus our research and development efforts towards constantly improving the performance characteristics and reliability of products using SPD technology.

### ITEM 2. PROPERTIES

The Company currently occupies approximately 9,500 square feet of space at an annual rental which in 2006 was approximately \$169,000 for its executive office and research facility at 240 Crossways Park Drive, Woodbury, New York 11797 under a lease expiring January 31, 2014. The Company believes that its space, including its laboratory facilities, is adequate for its present needs.

### ITEM 3. LEGAL PROCEEDINGS

There are no legal proceedings pending by or against the Company.

### ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None

## PART II

### ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCK HOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

(a) Market Information

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(1) The Company's common stock is traded on the NASDAQ Capital Market. As of March 22, 2007, there were 15,318,601 shares of common stock outstanding.

(2) The following table sets forth the range of the high and low selling prices (as provided by the National Association of Securities Dealers) of the Company's common stock for each quarterly period within the past two fiscal years:

Quarter Ended	Low	High
March 31, 2005	5.00	6.59
June 30, 2005	2.76	5.75
September 30, 2005	2.55	3.50
December 31, 2005	3.18	7.00
March 31, 2006	3.59	6.32
June 30, 2006	3.71	6.49
September 30, 2006	4.00	5.25
December 31, 2006	4.05	6.82

These quotations may reflect inter-dealer prices, without retail mark-up, mark-down, or commission, and may not necessarily represent actual transactions.

### (b) Approximate Number of Security Holders

As of March 22, 2007, there were 566 holders of record of the Company's common stock. The Company estimates that there are approximately 6,000 beneficial holders of the Company's common stock.

### (c) Dividends

The Company did not pay dividends on its common stock in 2006 and does not expect to pay any cash dividends in the foreseeable future. There are no restrictions on the payment of dividends.

### (d) Issuer Purchases of Equity Securities

None.

## ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth selected data regarding the Company's operating results and financial position. The data should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and the consolidated financial statements and notes thereto, all of which are contained in this Annual Report on Form 10-K.

	Year ended December 31,				
	2006	2005	2004	2003	2002
<b>Statement of Operations Data:</b>					
Fee income	\$ 162,639	\$ 138,742	\$ 201,321	\$ 258,187	\$ 217,519
Operating expenses	2,383,856	2,624,379	2,633,534	2,537,317	2,631,139
Research and development	1,170,503	1,391,657	1,682,624	1,908,753	1,859,030
Charge for reduction in value of investment in SPD Inc. (1)	--	--	165,501	615,200	--
	3,554,359	4,016,036	4,481,659	5,061,270	4,490,169
Operating loss	3,391,720	(3,877,294)	(4,280,338)	(4,803,083)	(4,272,650)
Net investment income (2)	88,087	129,762	17,597	30,775	321,534

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Net loss	(3,303,633)	(3,747,532)	(4,262,741)	(4,772,308)	(3,951,116)
Basic and diluted net loss					
per common share	(.24)	(.27)	(.33)	(.38)	(.33)
Dividends per share	--	--	--	--	--

	As of December 31,				
	2006	2005	2004	2003	2002
Balance Sheet Data:					
Total current asset	\$ 3,126,381	\$3,823,093	\$2,716,964	\$5,322,083	\$5,293,629
Total assets	3,251,637	3,957,205	2,860,673	5,690,270	6,267,051
Long-term debt, including					
accrued interest	--	--	--	--	--
Total shareholders' equity	2,992,621	3,646,254	2,392,303	5,469,427	5,974,466

- (1) Reflects a non-cash charge against income of \$615,200 recorded by the Company in the first quarter of 2003 to reflect a reduction in the value of its investment in SPD Inc. determined based upon recent financing activity of SPD Inc. The Company also recorded a further non-cash charge against income of \$209,704 during the first quarter of 2004. During the fourth quarter of 2004, the Company received a payment of \$44,203 as part of a liquidation distribution made by SPD Inc. to its shareholders, resulting in a total net non-cash charge against income of \$165,501 in 2004.
- (2) Net investment income for 2002 includes \$64,608 of interest income received from officers of the Company upon payment of notes receivable.

### ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

#### Critical Accounting Policies

The following accounting policies are important to understanding our financial condition and results of operations and should be read as an integral part of the discussion and analysis of the results of our operations and financial position. For additional accounting policies, see note 2 to our consolidated financial statements, "Summary of Significant Accounting Policies."

The Company has entered into a number of license agreements covering potential products using the Company's SPD technology. The Company receives fees and minimum annual royalties under certain license agreements and records fee income on a ratable basis each quarter. In instances when sales of licensed products by its licensees exceed minimum annual royalties, the Company recognizes fee income as the amounts have been earned. Certain of the fees are accrued by, or paid to, the Company in advance of the period in which they are earned resulting in deferred revenue.

The Company expenses costs relating to the development or acquisition of patents due to the uncertainty of the recoverability of these items.

All of our research and development costs are charged to operations as incurred. Our research and development expenses consist of costs incurred for internal and external research and development. These costs include direct and indirect overhead

expenses.

The Company has historically used the Black-Scholes option-pricing model to determine the estimated fair value of each option grant. The Black-Scholes model includes assumptions regarding dividend yields, expected volatility, expected lives, and risk-free interest rates. These assumptions reflect our best estimates, but these items involve uncertainties based on market conditions generally outside of our control. As a result, if other assumptions had been used in the current period, stock-based compensation expense could have been materially impacted. Furthermore, if management uses different assumptions in future periods, stock-based compensation expense could be materially impacted in future years.

On occasion, the Company may issue to consultants either options or warrants to purchase shares of common stock of the Company at specified share prices. These options or warrants may vest based upon specific services being performed or performance criteria being met. In accordance with Emerging Issues Task Force Issue 96-18, Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services, the Company would be required to record consulting expenses based upon the fair value of such options or warrants on the date that such options or warrants vest as determined using a Black-Scholes option pricing model. Depending upon the difference between the exercise price and the market price of the Company's common stock on the date that such options or warrants vest, the amount of non-cash expenses that could be recorded as a result of the vesting of such options or warrants can be material.

The Company applied the cost method of accounting for its minority equity interest in SPD Inc., a subsidiary of Hankuk Glass Industries, Inc. Because no public market existed for the common stock of SPD Inc., the Company reviewed the operating performance, financing and forecasts for such entity in assessing the net realizable value of this investment. During 2003, the Company recorded total non-cash accounting charges of \$615,200 against income to reflect a reduction in the value of its investment in SPD Inc. These non-cash charges were determined as follows: During the first quarter of 2003, the Company recorded a non-cash charge against income of \$255,200 to reflect a reduction in the value of its investment in SPD Inc. determined based upon recent financing activity of SPD Inc. The Company also recorded a further non-cash charge against income of \$360,000 as of the end of 2003 to reflect a reduction in the value of its investment in SPD Inc. determined based upon its review of the financial position and results of operations of SPD Inc. as of and for the year ended December 31, 2003. On April 28, 2004, SPD Inc. informed the Company that it was planning to sell its equipment and other assets and cease its business activities. As a result, the Company wrote off its entire remaining investment in SPD Inc. of \$209,704 in the first quarter of 2004. During the fourth quarter of 2004, the Company received a payment of \$44,203 as part of a liquidation distribution made by SPD Inc. to its shareholders, resulting in a total net non-cash charge against income of \$165,501 in 2004.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of

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America requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, and reported amounts of revenues and expenses during the reporting periods. Actual results could differ from these estimates. An example of a critical estimate is the full valuation allowance for deferred taxes that was recorded based on the uncertainty that such tax benefits will be realized in future periods.

### Results of Operations

Year ended December 31, 2006 Compared to the Year ended December 31, 2005

The Company's fee income from licensing activities for 2006 was \$162,639, as compared to \$138,742 for 2005. This difference in fee income was primarily the result of the timing and amount of minimum annual royalties paid, and the date of receipt of such payment on certain license agreements, by end-product licensees. Certain license fees, which are paid to the Company in advance of the accounting period in which they are earned resulting in the recognition of deferred revenue for the current accounting period, will be recognized as fee income in future periods. Also, licensees may offset some or all of their royalty payments on sales of licensed products for a given period by applying these advance payments towards such earned royalty payments.

Operating expenses decreased by \$240,523 for 2006 to \$2,383,856 from \$2,624,379 for 2005. This decrease was primarily the result of lower insurance (lower by approximately \$71,500 primarily the result of a change in medical insurance carriers), consulting (decreased by approximately \$96,5000, patent (lower by approximately \$39,000) and depreciation expenses, and lower stock listing fees (reduced by approximately \$61,000 as a result of the movement of the Company's listing from the Nasdaq National Market to the Nasdaq Capital Market).

Research and development expenditures decreased by \$221,154 to \$1,170,503 for 2006 from \$1,391,657 for 2005. This decrease was primarily the result of decreased payroll (lower by approximately \$81,000 primarily the result of the net reduction in technical staff size by one employee), depreciation, materials (lower by approximately \$87,500), consulting (decreased by approximately \$12,000) and insurance expenses (lower by approximately \$67,500 primarily the result of a change in medical insurance carriers).

Investment income for 2006 was \$88,087 as compared to a net gain from its investing activities of \$129,762 for 2005. This difference was primarily due to lower cash balances available to invest, partially offset by higher interest rates during 2006.

As a consequence of the factors discussed above, the Company's net loss was \$3,303,633 (\$0.24 per share) for 2006 as compared to \$3,747,532 (\$0.27 per share) for 2005.

Year ended December 31, 2005 Compared to the Year ended December 31, 2004

The Company's fee income from licensing activities for 2005 was \$138,742, as compared to \$201,321 for 2004. This

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difference in fee income was primarily the result of the timing and amount of minimum annual royalties paid, and the date of receipt of such payment on certain license agreements, by end-product licensees. Certain license fees, which are paid to the Company in advance of the accounting period in which they are earned resulting in the recognition of deferred revenue for the current accounting period, will be recognized as fee income in future periods. Also, licensees may offset some or all of their royalty payments on sales of licensed products for a given period by applying these advance payments towards such earned royalty payments.

Operating expenses decreased by \$9,155 for 2005 to \$2,624,379 from \$2,633,534 for 2004. This decrease was primarily the result of lower marketing, accounting, depreciation and insurance expenses, partially offset by higher payroll, consulting, and patent expenses, and higher stock listing fees and reserves for bad debts.

Research and development expenditures decreased by \$290,967 to \$1,391,657 for 2005 from \$1,682,624 for 2004. This decrease was primarily the result of decreased payroll (reduced by approximately \$107,000 primarily the result of a reduction in salary of one employee and the net reduction in technical staff size by one employee), depreciation, and other allocated office expenses partially offset by higher materials expense (increased by approximately \$66,000).

Investment income for 2005 was \$129,762 as compared to a net gain from its investing activities of \$17,597 for 2004. This difference was primarily due to higher interest rates during 2005 and higher cash balances due to the receipt of proceeds from the sale of common stock and warrants in February 2005. Investment income for 2004 was \$30,097 prior to a write-down of \$12,500 in the Company's investment in common stock of ThermoView Industries.

During 2004, the Company recorded total non-cash accounting charges of \$165,501 against income to reflect a reduction in the value of its investment in SPD Inc.

As a consequence of the factors discussed above, the Company's net loss was \$3,747,532 (\$0.27 per share) for 2005 as compared to \$4,262,741 (\$0.33 per share) for 2004.

### Financial Condition, Liquidity and Capital Resources

During 2006, the Company's cash and cash equivalent balance decreased by \$644,164 principally as a result of cash used to fund the Company's operating activities of \$3,265,358, partially offset by \$2,650,000 of net proceeds received from the issuance of common stock. At December 31, 2006, the Company had working capital of \$2,867,365 and its shareholders' equity was \$2,992,621.

During 2005, the Company's cash and cash equivalent balance increased by \$1,042,622 principally as a result of \$5,000,000 of net proceeds received from the issuance of common stock and warrants, offset by cash used to fund the Company's operating activities of \$3,920,835. At December 31, 2005, the Company had working capital of \$3,512,142 and its shareholders' equity was \$3,646,254.

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The Company occupies premises under an operating lease agreement which expires on January 31, 2014 and requires minimum annual rent which rises over the term of the lease to approximately \$176,669, plus tenant's share of applicable taxes. These lease obligations are summarized over time as of December 31, 2006:

Payments due by period

See accompanying notes to the condensed consolidated financial statements.

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ILLUMINA, INC.  
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME  
(Unaudited)  
(In millions)

	Three Months Ended	
	April 2, 2018	April 2, 2017
Total consolidated net income and comprehensive income	\$ 197	\$ 348
Add: Comprehensive loss attributable to noncontrolling interests	11	19
Comprehensive income attributable to Illumina stockholders	\$ 208	\$ 367

See accompanying notes to the condensed consolidated financial statements.

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ILLUMINA, INC.

## CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

(Unaudited)

(In millions)

	Illumina Stockholders						Total Stockholders' Equity
	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Retained Earnings	Treasury Stock	Noncontrolling Interests	
Balance as of December 31, 2017	\$2	\$ 2,833	\$ (1 )	\$ 2,256	\$(2,341)	\$ —	\$ 2,749
Net income (loss)	—	—	—	208	—	(1 )	207
Issuance of common stock, net of repurchases	—	21	—	—	(13 )	—	8
Share-based compensation	—	48	—	—	—	—	48
Adjustment to the carrying value of redeemable noncontrolling interests	—	(5 )	—	—	—	—	(5 )
Contributions from noncontrolling interest owners	—	—	—	—	—	61	61
Issuance of subsidiary shares	—	—	—	—	—	5	5
Balance as of April 1, 2018	\$2	\$ 2,897	\$ (1 )	\$ 2,464	\$(2,354)	\$ 65	\$ 3,073

See accompanying notes to condensed consolidated financial statements.

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ILLUMINA, INC.  
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
 (Unaudited)  
 (In millions)

	Three Months Ended	
	April 1, 2018	April 2, 2017
Cash flows from operating activities:		
Consolidated net income	\$ 197	\$ 348
Adjustments to reconcile net income to net cash provided by operating activities:		
Gain on deconsolidation of GRAIL	—	(453 )
Depreciation expense	30	26
Amortization of intangible assets	9	12
Share-based compensation expense	48	50
Accretion of debt discount	8	7
Deferred income taxes	(11 )	86
Impairment of intangible assets	—	23
Other	(6 )	(2 )
Changes in operating assets and liabilities:		
Accounts receivable	11	16
Inventory	(17 )	1
Prepaid expenses and other current assets	(2 )	2
Other assets	(1 )	(1 )
Accounts payable	2	(3 )
Accrued liabilities	(18 )	52
Other long-term liabilities	5	4
Net cash provided by operating activities	255	168
Cash flows from investing activities:		
Purchases of available-for-sale securities	(598 )	(61 )
Sales of available-for-sale securities	288	40
Maturities of available-for-sale securities	415	48
Proceeds from sale of GRAIL securities	—	278
Deconsolidation of GRAIL cash	—	(52 )
Net purchases of strategic investments	(3 )	(7 )
Purchases of property and equipment	(90 )	(83 )
Net cash provided by investing activities	12	163
Cash flows from financing activities:		
Payments on financing obligations	(2 )	(1 )
Common stock repurchases	—	(101 )
Taxes paid related to net share settlement of equity awards	(13 )	(22 )
Proceeds from issuance of common stock	21	22
Contributions from noncontrolling interest owners	61	16
Net cash provided by (used in) financing activities	67	(86 )
Effect of exchange rate changes on cash and cash equivalents	1	1
Net increase in cash and cash equivalents	335	246
Cash and cash equivalents at beginning of period	1,225	735
Cash and cash equivalents at end of period	\$ 1,560	\$ 981

See accompanying notes to the condensed consolidated financial statements.

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Illumina, Inc.

Notes to Condensed Consolidated Financial Statements  
(Unaudited)

Unless the context requires otherwise, references in this report to “Illumina,” “we,” “us,” the “Company,” and “our” refer to Illumina, Inc. and its consolidated subsidiaries.

1. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP) for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. Interim financial results are not necessarily indicative of results anticipated for the full year. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and footnotes included in the Annual Report on Form 10-K for the fiscal year ended December 31, 2017, from which the prior year balance sheet information herein was derived. The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, and expense, and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

The unaudited condensed consolidated financial statements include our accounts, our wholly-owned subsidiaries, majority-owned or controlled companies, and variable interest entities (VIEs) for which we are the primary beneficiary. All intercompany transactions and balances have been eliminated in consolidation. In management’s opinion, the accompanying financial statements reflect all adjustments, consisting of normal recurring adjustments, considered necessary for a fair presentation of the results for the interim periods presented.

We evaluate our ownership, contractual, and other interests in entities that are not wholly-owned to determine if these entities are VIEs, and, if so, whether we are the primary beneficiary of the VIE. In determining whether we are the primary beneficiary of a VIE and therefore required to consolidate the VIE, a qualitative approach is applied that determines whether we have both (1) the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance and (2) the obligation to absorb losses of, or the rights to receive benefits from, the VIE that could potentially be significant to that VIE. We continuously assess whether we are the primary beneficiary of a VIE as changes to existing relationships or future transactions may result in the consolidation or deconsolidation of such VIE. During the three months ended April 1, 2018, our consolidated VIE, Helix, received additional cash contributions from us and third-party investors in exchange for voting equity interests in Helix. Therefore, we reassessed and concluded that Helix continues to be a variable interest entity and that we remain the primary beneficiary. We have not provided financial or other support during the periods presented to our VIEs that we were not previously contractually required to provide.

The equity method is used to account for investments in which we have the ability to exercise significant influence, but not control, over the investee. Such investments are recorded within other assets, and the share of net income or losses of equity investments is recognized on a one quarter lag in other income, net.

Redeemable Noncontrolling Interests

Noncontrolling interests represent the portion of equity (net assets) in our consolidated entity, Helix, that is not wholly-owned by us that is not attributable, directly or indirectly, to us. Noncontrolling interests with embedded contingent redemption features, such as put rights, that are not solely within our control are considered redeemable

noncontrolling interests. Redeemable noncontrolling interests are presented outside of stockholders' equity on the condensed consolidated balance sheets.

Fiscal Year

Our fiscal year is the 52 or 53 weeks ending the Sunday closest to December 31, with quarters of 13 or 14 weeks ending the Sunday closest to March 31, June 30, September 30, and December 31. The three months ended April 1, 2018 and April 2, 2017 were both 13 weeks.

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### Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation.

### Significant Accounting Policies

During the three months ended April 1, 2018, there have been no changes to our significant accounting policies as described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, except as described below.

### Recently Adopted Accounting Pronouncements

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers (Topic 606). The new standard is based on the principle that revenue should be recognized in an amount that reflects the consideration to which we expect to be entitled in exchange for the transfer of promised goods or services. We adopted Topic 606 using the modified retrospective transition method. The cumulative effect of applying the new revenue standard to all incomplete contracts as of January 1, 2018 was not material and, therefore, did not result in an adjustment to retained earnings. There was no material difference to the consolidated financial statements for the period ended April 1, 2018 due to the adoption of Topic 606. Furthermore, we expect the impact to be immaterial to our consolidated financial statements going forward.

In January 2016, the FASB issued ASU 2016-01, Financial Instruments - Overall (Subtopic 825-10), which requires equity investments (other than those accounted for under the equity method or those that result in consolidation) to be measured at fair value, with changes in fair value recognized in net income. This standard was effective for us beginning in the first quarter of 2018. Based on our elections, our strategic equity investments that do not have readily determinable fair values and do not qualify for the net asset value practical expedient for estimating fair value are measured at cost, less any impairments, plus or minus changes resulting from observable price changes in orderly transactions for identifiable or similar investments of the same issuer. The measurement alternative was applied prospectively and did not result in an adjustment to retained earnings.

### Recently Issued Accounting Pronouncements

In February 2016, the FASB issued Accounting Standard Update (ASU) 2016-02, Leases (Topic 842). The new standard requires lessees to recognize most leases on their balance sheet as lease liabilities with corresponding right-of-use assets. ASU 2016-02 is effective for us beginning in the first quarter of 2019. Currently, the standard will be adopted on a modified retrospective transition basis for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The FASB has proposed an alternative method to adopt the lease standard by recognizing a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. While we are continuing to assess the effects of adoption, we believe the new standard will have a material effect on our consolidated financial statements and disclosures. We expect substantially all of our real-estate operating lease commitments will be recognized as lease liabilities with corresponding right-of-use assets upon adoption, resulting in a significant increase in the assets and liabilities on the consolidated balance sheet. We are currently evaluating the impact of Topic 842 on the consolidated financial statements as it relates to other aspects of our business.

In June 2016, the FASB issued Accounting Standards Update (ASU) 2016-13, Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments, which amends the impairment model by requiring entities to use a forward-looking approach based on expected losses to estimate credit losses on certain types of financial

instruments, including trade receivables and available for sale debt securities. The standard is effective for us beginning in the first quarter of 2020, with early adoption permitted. We are currently evaluating the impact of ASU 2016-13 on the consolidated financial statements.

## Revenue

Our revenue is generated primarily from the sale of products and services. Product revenue primarily consists of sales of instruments and consumables used in genetic analysis. Service and other revenue primarily consists of revenue generated from genotyping and sequencing services and instrument service contracts.

We recognize revenue when control of our products and services is transferred to our customers in an amount that reflects the consideration we expect to receive from our customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract

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price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when the performance obligations have been satisfied. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. We consider a performance obligation satisfied once we have transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. We recognize revenue for satisfied performance obligations only when we determine there are no uncertainties regarding payment terms or transfer of control.

Revenue from product sales is recognized generally upon delivery to the end customer, which is when control of the product is deemed to be transferred. Invoicing typically occurs upon shipment and the term between invoicing and when payment is due is not significant. In instances where right of payment or transfer of title is contingent upon the customer's acceptance of the product, revenue is deferred until all acceptance criteria have been met. Revenue from instrument service contracts is recognized as the services are rendered, typically evenly over the contract term. Revenue from genotyping and sequencing services is recognized when earned, which is generally at the time the genotyping or sequencing analysis data is made available to the customer or agreed-upon milestones are reached.

Revenue is recorded net of discounts, distributor commissions, and sales taxes collected on behalf of governmental authorities. Employee sales commissions are recorded as selling, general and administrative expenses when incurred as the amortization period would have been one year or less.

We regularly enter into contracts with multiple performance obligations. Such obligations are generally satisfied within a short time frame, approximately three to six months, after the contract execution date. Revenue recognition for contracts with multiple deliverables is based on the separate, distinct performance obligations within the contract. We do not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less, and (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed.

The contract price is allocated to each performance obligation in proportion to its stand-alone selling price. We determine our best estimate of stand-alone selling price using average selling prices over a rolling 12-month period coupled with an assessment of current market conditions. If the product or service has no history of sales or if the sales volume is not sufficient, we rely upon prices set by our pricing committee, adjusted for applicable discounts.

Contract liabilities, which consists of deferred revenue and customer deposits, as of April 1, 2018 and December 31, 2017 were \$184 million and \$181 million, respectively, of which the short-term portions of \$153 million and \$150 million, respectively, were recorded in accrued liabilities and the remaining long-term portions were recorded in other long-term liabilities. Revenue recorded in the three months ended April 1, 2018 includes \$68 million of previously deferred revenue that were included in contract liabilities as of December 31, 2017. Contract assets as of April 1, 2018 and December 31, 2017 were not material.

In certain markets, products and services are sold to customers through distributors. In most sales through distributors, the product is delivered directly to customers. The terms of sales transactions through distributors are consistent with the terms of direct sales to customers.

The following table represents revenue by source (in millions):

	Three Months Ended					
	April 1, 2018			April 2, 2017		
	Sequencing	Microarray	Total	Sequencing	Microarray	Total
Consumables	\$417	\$ 87	\$504	\$318	\$ 69	\$387
Instruments	112	6	118	95	5	100

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Other product	5	1	6	4	—	4
Total product revenue	534	94	628	417	74	491
Service and other	96	58	154	78	29	107
Total revenue	\$630	\$ 152	\$782	\$495	\$ 103	\$598

Revenue related to our Consolidated VIEs is included in sequencing services and other revenue.

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The following table represents revenue by geographic area, based on region of destination (in millions):

	Three Months Ended April 2, 2018 2017	
United States	\$416	\$ 325
Europe	184	126
Greater China (1)	78	56
Asia-Pacific (1)	70	67
Other markets	34	24
Total revenue	\$782	\$ 598

(1) Revenue for the Greater China region, which consists of China, Taiwan, and Hong Kong, is reported separately from the Asia-Pacific region.

## Earnings per Share

Basic earnings per share attributable to Illumina stockholders is computed based on the weighted average number of common shares outstanding during the period. Diluted earnings per share attributable to Illumina stockholders is computed based on the sum of the weighted average number of common shares and potentially dilutive common shares outstanding during the period. Per-share earnings of our VIEs are included in the consolidated basic and diluted earnings per share computations based on our share of the VIE's securities.

Potentially dilutive common shares consist of shares issuable under convertible senior notes and equity awards. Convertible senior notes have a dilutive impact when the average market price of our common stock exceeds the applicable conversion price of the respective notes. Potentially dilutive common shares from equity awards are determined using the average share price for each period under the treasury stock method. In addition, proceeds from exercise of equity awards and the average amount of unrecognized compensation expense for equity awards are assumed to be used to repurchase shares.

The following is the calculation of weighted average shares used to calculate basic and diluted earnings per share (in millions):

	Three Months Ended April 2, 2018 2017	
Weighted average shares outstanding	147	146
Effect of potentially dilutive common shares from:		
Equity awards	1	1
Weighted average shares used in calculating diluted earnings per share	148	147
Potentially dilutive shares excluded from calculation due to anti-dilutive effect	—	1

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## 2. Balance Sheet Account Details

## Short-Term Investments

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

	April 1, 2018			December 31, 2017		
	Amortized Cost	Gross Unrealized Losses	Estimated Fair Value	Amortized Cost	Gross Unrealized Losses	Estimated Fair Value
Available-for-sale debt securities:						
Debt securities in government sponsored entities	\$38	\$ —	\$ 38	\$67	\$ —	\$ 67
Corporate debt securities	375	(2 )	373	423	(2 )	421
U.S. Treasury securities	403	(1 )	402	433	(1 )	432
Total available-for-sale debt securities	\$816	\$ (3 )	\$ 813	\$923	\$ (3 )	\$ 920

Realized gains and losses are determined based on the specific identification method and are reported in interest income.

Contractual maturities of available-for-sale debt securities as of April 1, 2018 were as follows (in millions):

	Estimated Fair Value
Due within one year	\$ 353
After one but within five years	460
Total	\$ 813

We have the ability, if necessary, to liquidate any of our cash equivalents and short-term investments to meet our liquidity needs in the next 12 months. Accordingly, those investments with contractual maturities greater than one year from the date of purchase are classified as short-term on the accompanying condensed consolidated balance sheets.

## Strategic Investments

The carrying amounts of our strategic equity investments without readily determinable fair values are initially measured at cost and are remeasured for impairment and observable price changes in orderly transactions for identifiable or similar investments of the same issuer.

As of April 1, 2018 and December 31, 2017, the aggregate carrying amounts of our strategic equity investments without readily determinable fair values were \$256 million and \$250 million, respectively, included in other assets. Revenue recognized from transactions with such companies for the three months ended April 1, 2018 and April 2, 2017 was \$36 million and \$23 million, respectively.

We invest in a venture capital investment fund (the Fund) with a capital commitment of \$100 million that is callable over ten years, of which \$80 million remains as of April 1, 2018. Our investment in the Fund is accounted for as an equity-method investment. The carrying amounts of the Fund included in other assets were \$19 million and \$16 million as of April 1, 2018 and December 31, 2017, respectively.

## Inventory

Inventory consists of the following (in millions):

	April 1, December 31,	
	2018	2017
Raw materials	\$ 95	\$ 93
Work in process	209	188
Finished goods	46	52
Total inventory	\$ 350	\$ 333

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## Property and Equipment

Property and equipment, net consists of the following (in millions):

	April 1, December 31,	
	2018	2017
Leasehold improvements	\$ 477	\$ 331
Machinery and equipment	331	316
Computer hardware and software	207	185
Furniture and fixtures	40	34
Buildings	269	155
Construction in progress	103	326
Total property and equipment, gross	1,427	1,347
Accumulated depreciation	(444 )	(416 )
Total property and equipment, net	\$ 983	\$ 931

Property and equipment, net included non-cash expenditures of \$33 million and \$60 million for the three months ended April 1, 2018 and April 2, 2017, respectively, which were excluded from the condensed consolidated statements of cash flows. Such non-cash expenditures included \$6 million and \$27 million recorded under build-to-suit lease accounting for the three months ended April 1, 2018 and April 2, 2017, respectively.

## Intangible Assets and Goodwill

Changes to goodwill during the three months ended April 1, 2018 are as follows (in millions):

	Goodwill
Balance as of December 31, 2018	\$ 771
Current period acquisition	4
Balance as of April 1, 2018	\$ 775

We perform regular reviews to determine if any event has occurred that may indicate our identifiable intangible assets are potentially impaired. During the three months ended April 2, 2017, we performed a recoverability test when the planned use of a finite-lived acquired intangible asset changed, resulting in an impairment charge of \$18 million recorded in cost of product revenue. Also during the three months ended April 2, 2017, we recorded a \$5 million impairment charge in research and development related to an in-process research and development project that was determined to have no future alternative use.

## Derivatives

We are exposed to foreign exchange rate risks in the normal course of business. We enter into foreign exchange contracts to manage foreign currency risks related to monetary assets and liabilities that are denominated in currencies other than the U.S. dollar. These foreign exchange contracts are carried at fair value in other current assets or accrued liabilities and are not designated as hedging instruments. Changes in the value of derivatives are recognized in other income, net, along with the remeasurement gain or loss on the foreign currency denominated assets or liabilities.

As of April 1, 2018, we had foreign exchange forward contracts in place to hedge exposures in the euro, Japanese yen, Australian dollar, and Canadian dollar. As of April 1, 2018 and December 31, 2017, the total notional amounts of outstanding forward contracts in place for foreign currency purchases were \$113 million and \$88 million, respectively.



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## Accrued Liabilities

Accrued liabilities consist of the following (in millions):

	April 1, December 31,	
	2018	2017
Contract liabilities, current portion	\$ 153	\$ 150
Accrued compensation expenses	125	177
Accrued taxes payable	59	50
Other	51	55
Total accrued liabilities	\$ 388	\$ 432

## Warranties

We generally provide a one-year warranty on instruments. Additionally, we provide a warranty on consumables through the expiration date, which generally ranges from six to twelve months after the manufacture date. At the time revenue is recognized, an accrual is established for estimated warranty expenses based on historical experience as well as anticipated product performance. We periodically review the warranty reserve for adequacy and adjust the warranty accrual, if necessary, based on actual experience and estimated costs to be incurred. Warranty expense is recorded as a component of cost of product revenue.

Changes in the reserve for product warranties during the three months ended April 1, 2018 and April 2, 2017 are as follows (in millions):

	Three Months Ended	
	April 1, 2018	April 2, 2017
Balance at beginning of period	\$ 17	\$ 13
Additions charged to cost of product revenue	6	4
Repairs and replacements	(7 )	(5 )
Balance at end of period	\$ 16	\$ 12

## Investments in Consolidated VIEs

## Helix Holdings I, LLC

In July 2015, we obtained a 50% voting equity ownership interest in Helix Holdings I, LLC (Helix), a limited liability company formed with unrelated third-party investors to pursue the development and commercialization of a marketplace for consumer genomics. We determined that Helix is a VIE as the holders of the at-risk equity investments as a group lack the power to direct the activities of Helix that most significantly impact Helix's economic performance. Additionally, we determined that we have (a) unilateral power over one of the activities that most significantly impacts the economic performance of Helix through its contractual arrangements and no one individual party has unilateral power over the remaining significant activities of Helix and (b) the obligation to absorb losses of and the right to receive benefits from Helix that are potentially significant to Helix. As a result, we are deemed to be the primary beneficiary of Helix and are required to consolidate Helix.

As contractually committed, in July 2015, we contributed certain perpetual licenses, instruments, intangibles, initial laboratory setup, and discounted supply terms in exchange for voting equity interests in Helix. Such contributions are recorded at their historical basis as they remain within our control. Helix is financed through cash contributions made

by us and the third-party investors in exchange for voting equity interests in Helix. During the three months ended April 1, 2018, we made an additional investment of \$68 million in exchange for voting equity interests in Helix. As of April 1, 2018, the noncontrolling shareholders and Illumina each held 50% of Helix's outstanding voting equity interests.

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Certain noncontrolling Helix investors may require us to redeem certain noncontrolling interests in cash at the then approximate fair market value. Such redemption right is exercisable at the option of certain noncontrolling interest holders after January 1, 2021, provided that a bona fide pursuit of the sale of Helix has occurred and an initial public offering of Helix has not been completed. As the contingent redemption is outside of our control, the redeemable noncontrolling interests in Helix are classified outside of stockholders' equity on the accompanying condensed consolidated balance sheets. The balance of the redeemable noncontrolling interests is reported at the greater of its carrying value after receiving its allocation of Helix's profits and losses or its estimated redemption fair value at each reporting date. The fair value of the redeemable noncontrolling interests is considered a Level 3 instrument.

As of April 1, 2018, the accompanying condensed consolidated balance sheet includes \$121 million of cash and cash equivalents attributable to Helix that will be used to settle their respective obligations and will not be available to settle obligations of Illumina. The remaining assets and liabilities of Helix are not significant to our financial position as of April 1, 2018. Helix has an immaterial impact on our condensed consolidated statements of income and cash flows for the three months ended April 1, 2018.

## GRAIL, Inc.

In 2016, we obtained a majority equity ownership interest in GRAIL, a company formed with unrelated third-party investors to develop a blood test for early-stage cancer detection. We determined that GRAIL was a VIE as the entity lacked sufficient equity to finance its activities without additional support. Additionally, we determined that we had (a) control of GRAIL's board of directors, which had unilateral power over the activities that most significantly impacted the economic performance of GRAIL and (b) the obligation to absorb losses of and the right to receive benefits from GRAIL that were potentially significant to GRAIL. As a result, we were deemed to be the primary beneficiary of GRAIL and were required to consolidate GRAIL.

On February 28, 2017, GRAIL completed the initial close of its Series B preferred stock financing. Concurrent with the financing, GRAIL repurchased from us 35 million shares of its Series A preferred stock and approximately 34 million shares of its Series A-1 preferred stock for an aggregate purchase price of \$278 million. At this time, we ceased to have a controlling financial interest in GRAIL and our equity ownership was reduced from 52% to 19%. Additionally, our voting interest was reduced to 13%, and we no longer have representation on GRAIL's board of directors. As a result, we deconsolidated GRAIL's financial statements effective February 28, 2017 and recorded a pretax gain on deconsolidation of \$453 million in other income, net. The carrying value of the remaining retained investment recorded in other assets was \$185 million as of April 1, 2018 and December 31, 2017. The operations of GRAIL from January 2, 2017 up to February 28, 2017, the date of deconsolidation, are included in the accompanying condensed consolidated statements of income for the three months ended April 2, 2017. During this period, we absorbed approximately 50% of GRAIL's losses based upon our proportional ownership of GRAIL's common stock.

## Redeemable Noncontrolling Interests

The activity of the redeemable noncontrolling interests during the three months ended April 1, 2018 is as follows (in millions):

	Redeemable Noncontrolling Interests
Balance as of December 31, 2017	\$ 220
Net loss attributable to noncontrolling interests (10 )	(10 )
Adjustment up to the redemption value	5
Balance as of April 1, 2018	\$ 215



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## 3. Fair Value Measurements

The following table presents the hierarchy for assets and liabilities measured at fair value on a recurring basis as of April 1, 2018 and December 31, 2017 (in millions):

	April 1, 2018				December 31, 2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Money market funds (cash equivalents)	\$1,282	\$—	\$—	\$—1,282	\$957	\$—	\$—	\$—957
Debt securities in government-sponsored entities	—	38	—	38	—	67	—	67
Corporate debt securities	—	373	—	373	—	421	—	421
U.S. Treasury securities	402	—	—	402	432	—	—	432
Deferred compensation plan assets	—	35	—	35	—	35	—	35
Total assets measured at fair value	\$1,684	\$446	\$—	\$—2,130	\$1,389	\$523	\$—	\$—1,912
Liabilities:								
Deferred compensation liability	\$—	\$34	\$—	\$—34	\$—	\$33	\$—	\$—33

We hold available-for-sale securities that consist of highly-liquid, investment-grade debt securities. We consider information provided by our investment accounting and reporting service provider in the measurement of fair value of our debt securities. The investment service provider provides valuation information from an industry-recognized valuation service. Such valuations may be based on trade prices in active markets for identical assets or liabilities (Level 1 inputs) or valuation models using inputs that are observable either directly or indirectly (Level 2 inputs), such as quoted prices for similar assets or liabilities, yield curve, volatility factors, credit spreads, default rates, loss severity, current market and contractual prices for the underlying instruments or debt, broker and dealer quotes, as well as other relevant economic measures. Our deferred compensation plan assets consist primarily of investments in life insurance contracts carried at cash surrender value, which reflects the net asset value of the underlying publicly traded mutual funds. We perform control procedures to corroborate the fair value of our holdings, including comparing valuations obtained from our investment service provider to valuations reported by our asset custodians, validation of pricing sources and models, and review of key model inputs, if necessary.

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## 4. Debt and Other Commitments

## Summary of debt obligations

Debt obligations consist of the following (dollars in millions):

	April 1, 2018	December 31, 2017
Principal amount of 2019 Notes outstanding	\$633	\$ 633
Principal amount of 2021 Notes outstanding	517	517
Unamortized discount of liability component of convertible senior notes	(68 )	(75 )
Net carrying amount of liability component of convertible senior notes	1,082	1,075
Obligations under financing leases	244	113
Other	4	4
Less: current portion	(620 )	(10 )
Long-term debt	\$710	\$ 1,182
Carrying value of equity component of convertible senior notes, net of debt issuance cost	\$161	\$ 161
Fair value of convertible senior notes outstanding (Level 2)	\$1,333	\$ 1,305
Weighted-average remaining amortization period of discount on the liability component of convertible senior notes	2.6	2.8 years
	years	

## Convertible Senior Notes

0% Convertible Senior Notes due 2019 (2019 Notes) and 0.5% Convertible Senior Notes due 2021 (2021 Notes)

In June 2014, we issued \$633 million aggregate principal amount of 2019 Notes and \$517 million aggregate principal amount of 2021 Notes. We used the net proceeds plus cash on hand to repurchase outstanding debt. The 2019 and 2021 Notes mature on June 15, 2019 and June 15, 2021, respectively, and the implied estimated effective rates of the liability components of the Notes were 2.9% and 3.5%, respectively, assuming no conversion.

Both the 2019 and 2021 Notes will be convertible into cash, shares of common stock, or a combination of cash and shares of common stock, at our election, based on an initial conversion rate, subject to adjustment, of 3.9318 shares per \$1,000 principal amount of the notes (which represents an initial conversion price of approximately \$254.34 per share), only in the following circumstances and to the following extent: (1) during the five business-day period after any 10 consecutive trading day period (the measurement period) in which the trading price per 2019 and 2021 Notes for each day of such measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such day; (2) during any calendar quarter (and only during that quarter) after the calendar quarter ending September 30, 2014, if the last reported sale price of our common stock for 20 or more trading days in the period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter exceeds 130% of the applicable conversion price in effect on the last trading day of the immediately preceding calendar quarter; (3) upon the occurrence of specified events described in the indenture for the 2019 and 2021 Notes; and (4) at any time on or after March 15, 2019 for the 2019 Notes, or March 15, 2021 for the 2021 Notes, through the second scheduled trading day immediately preceding the maturity date.

Neither the 2019 nor the 2021 Notes were convertible as of April 1, 2018 and had no dilutive impact during the three months ended April 1, 2018. If the 2019 and 2021 Notes were converted as of April 1, 2018, the if-converted value would not exceed the principal amount. During the three months ended April 1, 2018, the carrying value of the 2019 Notes was reclassified to short-term as they become convertible within twelve months of the balance sheet date.

## Build-to-suit leases

We evaluate whether we are the accounting owner of leased assets during the construction period when we are involved in the construction of leased assets. We are considered the owner of a construction project for accounting purposes only under build-to-suit lease accounting due to certain indemnification obligations related to the construction. As of April 1, 2018, and December 31, 2017, we recorded \$21 million and \$144 million, respectively, in project construction costs paid or reimbursed by the landlord as construction in progress and a corresponding build-to-suit lease liability.

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During the three months ended April 1, 2018, construction of a build-to-suit property was completed. We concluded we did not qualify for “sale-leaseback” treatment and the lease is accounted for as a financing obligation. Accordingly, \$132 million of construction in progress and build-to-suit lease liability were reclassified to building asset and obligations under financing lease, respectively.

## 5. Share-based Compensation Expense

Share-based compensation expense is reported in our statements of income as follows (in millions):

	Three Months Ended	
	April 1, 2018	April 2, 2017
Cost of product revenue	\$4	\$ 3
Cost of service and other revenue	1	—
Research and development	15	14
Selling, general and administrative	28	33
Share-based compensation expense before taxes	48	50
Related income tax benefits	(10 )	(11 )
Share-based compensation expense, net of taxes	\$38	\$ 39

The assumptions used for the specified reporting periods and the resulting estimates of weighted-average fair value per share for stock purchased under the Employee Stock Purchase Plan (ESPP) during the three months ended April 1, 2018 are as follows:

	Employee Stock Purchase Rights 0.83%
Risk-free interest rate	- 1.89%
Expected volatility	28% - 44%
Expected term	0.5 - 1.0 year
Expected dividends	0 %
Weighted-average fair value per share	\$55.83

As of April 1, 2018, approximately \$360 million of unrecognized compensation cost related to restricted stock and ESPP shares granted to date is expected to be recognized over a weighted-average period of approximately 2.5 years.

## 6. Stockholders' Equity

As of April 1, 2018, approximately 5.5 million shares remained available for future grants under the 2015 Stock Plan.

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## Restricted Stock

Restricted stock activity and related information for the three months ended April 1, 2018 is as follows (units in thousands):

	Restricted Stock Units (RSU)	Performance Stock Units (PSU)(1)	Weighted-Average Grant-Date Fair Value per Share	
			RSU	PSU
Outstanding at December 31, 2017	2,085	542	\$ 172.92	\$ 166.15
Awarded	17	45	\$ 228.79	\$ 164.36
Vested	(61 )	—	\$ 151.01	—
Cancelled	(70 )	(15 )	\$ 168.15	\$ 161.84
Outstanding at April 1, 2018	1,971	572	\$ 174.23	\$ 166.12

(1) The number of units reflect the estimated number of shares to be issued at the end of the performance period.

## Stock Options

Stock option activity during the three months ended April 1, 2018 is as follows:

	Options (in thousands)		Weighted-Average Exercise Price	
Outstanding at December 31, 2017	322		\$ 46.93	
Exercised	(17 )		\$ 41.91	
Outstanding and exercisable at April 1, 2018	305		\$ 47.20	

## ESPP

The price at which common stock is purchased under the ESPP is equal to 85% of the fair market value of the common stock on the first day of the offering period or purchase date, whichever is lower. During the three months ended April 1, 2018, approximately 0.1 million shares were issued under the ESPP. As of April 1, 2018, there were approximately 13.9 million shares available for issuance under the ESPP.

## Share Repurchases

On July 28, 2016, our Board of Directors authorized a share repurchase program, which superseded all prior and available repurchase authorizations, to repurchase \$250 million of outstanding common stock. During the three months ended April 2, 2017, we repurchased 0.6 million shares for \$101 million, completing the share repurchase program.

On May 4, 2017, our Board of Directors authorized an additional share repurchase program to repurchase \$250 million of outstanding common stock. The repurchases may be completed under a 10b5-1 plan or at management's discretion. Authorizations to repurchase \$100 million of our common stock remained available as of April 1, 2018.

## 7. Income Taxes

Our effective tax rate may vary from the U.S. federal statutory tax rate due to the change in the mix of earnings in tax jurisdictions with different statutory rates, benefits related to tax credits, and the tax impact of non-deductible

expenses and other permanent differences between income before income taxes and taxable income. The effective tax rate for the three months ended April 1, 2018 was 10.6%. The variance from the U.S. federal statutory tax rate of 21% was primarily attributable to the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom, and the discrete tax benefit associated with the recognition of prior year losses from our investment in Helix.

We continue to evaluate the impacts of U.S. Tax Reform as we interpret the legislation, including the newly-enacted global intangible low-taxed income (GILTI) provisions which subject our foreign earnings to a minimum level of tax. Because of the complexities of the new legislation, we have not yet elected an accounting policy for GILTI and therefore have only

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included GILTI related to current year operations in our estimated provision for income taxes. Recent FASB guidance indicates that accounting for GILTI either as part of deferred taxes or as a period cost are both acceptable methods. Once further information is gathered and interpretation and analysis of the tax legislation evolves we will make an appropriate accounting method election.

### 8. Legal Proceedings

We are involved in various lawsuits and claims arising in the ordinary course of business, including actions with respect to intellectual property, employment, and contractual matters. In connection with these matters, we assess, on a regular basis, the probability and range of possible loss based on the developments in these matters. A liability is recorded in the financial statements if it is believed to be probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Because litigation is inherently unpredictable and unfavorable results could occur, assessing contingencies is highly subjective and requires judgments about future events. We regularly review outstanding legal matters to determine the adequacy of the liabilities accrued and related disclosures. The amount of ultimate loss may differ from these estimates. Each matter presents its own unique circumstances, and prior litigation does not necessarily provide a reliable basis on which to predict the outcome, or range of outcomes, in any individual proceeding. Because of the uncertainties related to the occurrence, amount, and range of loss on any pending litigation or claim, we are currently unable to predict their ultimate outcome, and, with respect to any pending litigation or claim where no liability has been accrued, to make a meaningful estimate of the reasonably possible loss or range of loss that could result from an unfavorable outcome. In the event opposing litigants in outstanding litigations or claims ultimately succeed at trial and any subsequent appeals on their claims, any potential loss or charges in excess of any established accruals, individually or in the aggregate, could have a material adverse effect on our business, financial condition, results of operations, and/or cash flows in the period in which the unfavorable outcome occurs or becomes probable, and potentially in future periods.

### 9. Segment Information

We have two reportable segments: Core Illumina and one segment related to the combined activities of our consolidated VIEs, GRAIL and Helix (Consolidated VIEs). Following the GRAIL deconsolidation on February 28, 2017, our Consolidated VIEs no longer include GRAIL.

We report segment information based on the management approach. This approach designates the internal reporting used by the Chief Operating Decision Maker (“CODM”) for making decisions and assessing performance as the source of our reportable segments. The CODM allocates resources and assesses the performance of each operating segment using information about its revenue and income (loss) from operations. Based on the information used by the CODM, we have determined our reportable segments as follows:

#### Core Illumina:

Core Illumina’s products and services serve customers in the research, clinical and applied markets, and enable the adoption of a variety of genomic solutions. Core Illumina includes all operations, excluding the results of the consolidated VIEs.

#### Consolidated VIEs:

Helix: Helix was established to enable individuals to explore their genetic information by providing affordable sequencing and database services for consumers through third-party partners, driving the creation of an ecosystem of consumer applications.

GRAIL: GRAIL was created to develop a blood test for early-stage cancer detection. GRAIL was in the early stages of developing this test and as such, had no revenues through the date of deconsolidation.

Management evaluates the performance of our operating segments based upon income (loss) from operations. We do not allocate expenses between segments. Core Illumina sells products and provides services to GRAIL and Helix in accordance with contractual agreements between the entities.

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The following table presents the operating performance of each reportable segment (in millions):

	Three Months Ended April 1, April 2, 2018 2017	
Revenue:		
Core Illumina	\$ 783	\$ 598
Consolidated VIEs	3	1
Elimination of intersegment revenue	(4 )	(1 )
Consolidated revenue	\$ 782	\$ 598

Income (loss) from operations:

Core Illumina	\$ 238	\$ 84
Consolidated VIEs	(21 )	(34 )
Elimination of intersegment earnings	1	2
Consolidated income from operations	\$ 218	\$ 52

The following table presents the total assets of each reportable segment (in millions):

	April 1, December 31, 2018 2017	
Core Illumina	\$ 5,465	\$ 5,223
Consolidated VIEs	155	45
Elimination of intersegment assets	(78 )	(11 )
Consolidated total assets	\$ 5,542	\$ 5,257

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Our Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) will help readers understand our results of operations, financial condition, and cash flow. It is provided in addition to the accompanying condensed consolidated financial statements and notes. This MD&A is organized as follows:

• **Business Overview and Outlook.** High level discussion of our operating results and significant known trends that affect our business.

• **Results of Operations.** Detailed discussion of our revenues and expenses.

• **Liquidity and Capital Resources.** Discussion of key aspects of our statements of cash flows, changes in our financial position, and our financial commitments.

• **Off-Balance Sheet Arrangements.** We have no off-balance sheet arrangements.

• **Critical Accounting Policies and Estimates.** Discussion of significant changes since our most recent Annual Report on Form 10-K we believe are important to understanding the assumptions and judgments underlying our financial statements.

• **Recent Accounting Pronouncements.** Summary of recent accounting pronouncements applicable to our condensed consolidated financial statements.

This MD&A discussion contains forward-looking statements that involve risks and uncertainties. Please see “Consideration Regarding Forward-Looking Statements” at the end of this MD&A section for additional factors relating to such statements. This MD&A should be read in conjunction with our condensed consolidated financial statements and accompanying notes included in this report and our Annual Report on Form 10-K for the fiscal year ended December 31, 2017. Operating results are not necessarily indicative of results that may occur in future periods.

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### Business Overview and Outlook

This overview and outlook provides a high-level discussion of our operating results and significant known trends that affect our business. We believe that an understanding of these trends is important to understanding our financial results for the periods being reported herein as well as our future financial performance. This summary is not intended to be exhaustive, nor is it intended to be a substitute for the detailed discussion and analysis provided elsewhere in this report.

### About Illumina

We have two reportable segments: Illumina's core operations (Core Illumina) and one segment related to the combined activities of our consolidated VIEs, GRAIL and Helix (Consolidated VIEs). Following the GRAIL deconsolidation on February 28, 2017, our Consolidated VIEs no longer include GRAIL. For information on GRAIL and Helix, refer to notes 2 and 9 of the Notes to the Condensed Consolidated Financial Statements provided in this report.

We are the global leader in sequencing- and array-based solutions for genetic analysis. Our products and services serve customers in a wide range of markets, enabling the adoption of genomic solutions in research and clinical settings.

Our customers include leading genomic research centers, academic institutions, government laboratories, and hospitals, as well as pharmaceutical, biotechnology, commercial molecular diagnostic laboratories, and consumer genomics companies.

Our portfolio of integrated sequencing and microarray systems, consumables, and analysis tools is designed to accelerate and simplify genetic analysis. This portfolio addresses the range of genomic complexity, price points, and throughput, enabling customers to select the best solution for their research or clinical challenge.

Our financial results have been, and will continue to be, impacted by several significant trends, which are described below. While these trends are important to understanding and evaluating our financial results, this discussion should be read in conjunction with our condensed consolidated financial statements and the notes thereto in Item 1, Part I of this report, and the other transactions, events, and trends discussed in "Risk Factors" in Item 1A, Part II of this report and Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

### Financial Overview

Consolidated financial highlights for Q1 2018 include the following:

- Net revenue increased 31% during Q1 2018 to \$782 million compared to \$598 million in Q1 2017 due to the growth in sales of our sequencing consumables and genotyping services, as well as increased shipments of our NovaSeq instrument, partially offset by lower shipments of our HiSeq instruments. We expect our revenue to continue to increase in 2018.

Gross profit as a percentage of revenue (gross margin) was 68.8% in Q1 2018 compared to 61.5% in Q1 2017. The gross margin increase was primarily driven by favorable service margins and an increase in consumables, which generate higher gross margins, as a percentage of revenue. Gross margin also increased due to the impairment of an acquired intangible asset and inventory reserves related to product transitions that were recorded in Q1 2017. Our gross margin in future periods will depend on several factors, including: market conditions that may impact our pricing power; sales mix changes among consumables, instruments, and services; product mix changes between established products and new products; excess and obsolete inventories; royalties; our cost structure for

manufacturing operations relative to volume; and product support obligations.

Income from operations as a percentage of revenue increased to 27.8% in Q1 2018 compared to 8.7% in Q1 2017 primarily due to increased revenue, improved gross margins, and a decrease in operating expenses as a result of the deconsolidation of GRAIL in Q1 2017. We expect research and development and selling, general and administrative expenses to continue to grow.

For U.S. federal purposes the corporate statutory income tax rate was reduced from 35% to 21%, effective for our 2018 tax year. The provisional impact of U.S. Tax Reform is our current best estimate based on a preliminary review of the new law and is subject to revision based on our existing accounting for income taxes policy as further information is gathered, and interpretation and analysis of the tax legislation evolves. The Securities and Exchange Commission has issued rules allowing for a measurement period of up to one year after the enactment date of U.S. Tax Reform to finalize the recording of the related tax impacts. Any future changes to our provisional estimated impact of U.S. Tax Reform will be included as an adjustment to the provision for income taxes.

Our effective tax rate was 10.6% in Q1 2018 compared to 30.8% in Q1 2017. The variance from the U.S. federal statutory tax rate of 21% in Q1 2018 was primarily attributable to the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom, and the discrete tax benefit associated with the recognition of prior year losses from our investment in Helix.

Our future effective tax rate may vary from the U.S. federal statutory tax rate due to the mix of earnings in tax jurisdictions with different statutory tax rates and the other factors discussed in the risk factor “We are subject to risks related to taxation in multiple jurisdictions” in Part I Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017. Based on our initial interpretation and analysis of U.S. Tax Reform and projected future financial results, we anticipate that our effective tax rate will trend lower than the U.S. federal statutory tax rate in the future due to the portion of our earnings that will be subject to lower statutory tax rates. As further information is gathered, and interpretation and analysis of the tax legislation evolves, we will update our estimate of the future effective tax rate.

Cash, cash equivalents, and short-term investments were \$2 billion as of April 1, 2018, of which approximately \$1 billion was held by our foreign subsidiaries.

## Results of Operations

To enhance comparability, the following table sets forth our unaudited condensed consolidated statements of income for the specified reporting periods stated as a percentage of total revenue.

	Q1 2018	Q1 2017
Revenue:		
Product revenue	80.3 %	82.1 %
Service and other revenue	19.7	17.9
Total revenue	100.0	100.0
Cost of revenue:		
Cost of product revenue	22.3	27.8
Cost of service and other revenue	7.9	8.9
Amortization of acquired intangible assets	1.0	1.8
Total cost of revenue	31.2	38.5
Gross profit	68.8	61.5
Operating expense:		
Research and development	17.5	24.2
Selling, general and administrative	23.5	28.6
Total operating expense	41.0	52.8

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Income from operations	27.8	8.7
Other income (expense):		
Interest income	0.6	0.7
Interest expense	(1.4 )	(1.3 )
Other income, net	1.2	76.0
Total other income, net	0.4	75.4
Income before income taxes	28.2	84.1
Provision for income taxes	3.0	25.9
Consolidated net income	25.2	58.2
Add: Net loss attributable to noncontrolling interests	1.4	3.2
Net income attributable to Illumina stockholders	26.6	% 61.4 %
Percentages may not recalculate due to rounding		

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Our fiscal year is the 52 or 53 weeks ending the Sunday closest to December 31, with quarters of 13 or 14 weeks ending the Sunday closest to March 31, June 30, September 30, and December 31. The three-month periods ended April 1, 2018 and April 2, 2017 were both 13 weeks.

## Revenue

(Dollars in millions)	Q1 2018	Q1 2017	Change	% Change
Consumables	\$ 504	\$ 387	\$ 117	30 %
Instruments	118	100	18	18
Other product	6	4	2	50
Total product revenue	628	491	137	28
Service and other revenue	154	107	47	44
Total revenue	\$ 782	\$ 598	\$ 184	31 %

Other product revenue consists primarily of freight. Service and other revenue consists primarily of sequencing and genotyping service revenue as well as instrument service contract revenue. Total revenue primarily relates to Core Illumina for all periods presented.

The increase in consumables revenue in Q1 2018 compared to Q1 2017 was primarily due to a \$99 million increase in sequencing consumables revenue driven by growth in the instrument installed base. Instrument revenue increased in Q1 2018 compared to Q1 2017 primarily due to a \$17 million increase in sequencing instruments revenue driven by shipments of our NovaSeq instrument, partially offset by lower shipments of our HiSeq instruments. Service and other revenue increased in Q1 2018 compared to Q1 2017 as a result of increased revenue from genotyping and sequencing services.

## Gross Margin

(Dollars in millions)	Q1 2018	Q1 2017	Change	% Change
Gross profit	\$ 538	\$ 368	\$ 170	46%
Gross margin	68.8 %	61.5 %		

The gross margin increase in Q1 2018 from Q1 2017 was primarily driven by favorable service margins and an increase in consumables, which generate higher gross margins, as a percentage of revenue. Gross margin also increased due to the \$18 million impairment of an acquired intangible asset and inventory reserves related to product transitions that were recorded in Q1 2017.

## Operating Expense

(Dollars in millions)	Q1 2018	Q1 2017	Change	% Change
Research and development	\$ 137	\$ 145	\$ (8 )	(6 )%
Selling, general and administrative	183	171	12	7
Total operating expense	\$ 320	\$ 316	\$ 4	1 %

Core Illumina R&D expense decreased by \$1 million, or 1%, in Q1 2018 from Q1 2017 primarily due to a \$5 million impairment of in-process research and development recorded in Q1 2017, partially offset by increased headcount as we continue to invest in the research and development of new products and enhancements to existing products. R&D expense of our Consolidated VIEs decreased by \$7 million primarily due to the deconsolidation of GRAIL in Q1 2017.

Core Illumina SG&A expense increased by \$22 million, or 14%, in Q1 2018 from Q1 2017 primarily due to increased headcount to support the continued growth and scale of our operations, partially offset by a reduction in legal contingencies. SG&A expense of our Consolidated VIEs decreased by \$10 million primarily due to the deconsolidation of GRAIL in Q1 2017.

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## Other Income (Expense)

(Dollars in millions)	Q1 2018	Q1 2017	Change	% Change
Interest income	\$ 5	\$ 4	\$ 1	25 %
Interest expense	(11 )	(8 )	(3 )	38
Other income, net	9	455	(446 )	(98 )
Total other income, net	\$ 3	\$ 451	\$(448 )	(99 )%

Other income (expense) primarily relates to Core Illumina for all periods presented.

Interest income increased in Q1 2018 compared to Q1 2017 as a result of higher yields on our investments and higher cash and cash-equivalent balances. Interest expense consists primarily of accretion of discount on our convertible senior notes and interest recorded on our financing obligations related to our build-to-suit properties.

Other income, net decreased in Q1 2018 compared to Q1 2017 primarily due to a \$453 million gain recorded on the deconsolidation of GRAIL in Q1 2017. Other income, net in Q1 2018 primarily consists of gains recorded on our strategic investments.

## Provision for Income Taxes

(Dollars in millions)	Q1 2018	Q1 2017	Change	% Change
Income before income taxes	\$ 221	\$ 503	\$(282 )	(56 )%
Provision for income taxes	24	155	(131 )	(85 )
Consolidated net income	\$ 197	\$ 348	\$(151 )	(43 )%
Effective tax rate	10.6 %	30.8 %		

Our effective tax rate was 10.6% for Q1 2018 compared to 30.8% in Q1 2017. The variance from the U.S. federal effective tax rate of 21% in Q1 2018 was primarily impacted by the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom, and the discrete tax benefit associated with the recognition of prior year losses from our investment in Helix. The variance from the U.S. federal statutory tax rate of 35% in Q1 2017 was primarily impacted by the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom, partially offset by the discrete tax impact from the gain on deconsolidation of GRAIL.

## Liquidity and Capital Resources

At April 1, 2018, we had approximately \$1.6 billion in cash and cash equivalents, of which approximately \$880 million was held by our foreign subsidiaries. Cash and cash equivalents held by Helix as of April 1, 2018 were \$121 million. Cash and cash equivalents increased by \$335 million from December 31, 2017, due to the factors described in the “Cash Flow Summary” below. Our primary source of liquidity, other than our holdings of cash, cash equivalents and investments, has been cash flows from operations. Our ability to generate cash from operations provides us with the financial flexibility we need to meet operating, investing, and financing needs. We currently do not expect our foreign earnings generated in 2018 to be indefinitely invested in the foreign jurisdictions.

Historically, we have liquidated our short-term investments and/or issued debt and equity securities to finance our business needs as a supplement to cash provided by operating activities. As of April 1, 2018, we had \$813 million in short-term investments. Our short-term investments include marketable securities consisting of U.S. government-sponsored entities, corporate debt securities, and U.S. Treasury securities.

We anticipate that our current cash, cash equivalents, and short-term investments, together with cash provided by operating activities are sufficient to fund our near-term capital and operating needs for at least the next 12 months. Operating needs include the planned costs to operate our business, including amounts required to fund working capital and capital expenditures. Our primary short-term needs for capital, which are subject to change, include:

- support of commercialization efforts related to our current and future products, including expansion of our direct sales force and field support resources both in the United States and abroad;

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acquisitions of equipment and other fixed assets for use in our current and future manufacturing and research and development facilities;

the continued advancement of research and development efforts;

potential strategic acquisitions and investments;

potential early repayment of debt obligations;

the expansion needs of our facilities, including costs of leasing and building out additional facilities;

repurchases of our outstanding common stock; and

the one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred in accordance with the Tax Cuts and Jobs Act (U.S. Tax Reform) enacted on December 22, 2017.

Our convertible senior notes due in 2019 and 2021 were not convertible as of April 1, 2018. Our convertible senior notes due in 2019 are convertible at any time on or after March 15, 2019.

On May 4, 2017, our Board of Directors authorized a share repurchase program to repurchase \$250 million of outstanding common stock. The repurchases may be completed under a 10b5-1 plan or at management's discretion. Authorizations to repurchase \$100 million of our common stock remained available as of April 1, 2018.

Certain noncontrolling Helix investors may require Illumina to redeem certain noncontrolling interests in cash at the then approximate fair market value. Such redemption right is exercisable at the option of certain noncontrolling interest holders after January 1, 2021, provided that a bona fide pursuit of the sale of Helix has occurred and an initial public offering of Helix has not been completed. The fair value of the redeemable noncontrolling interests related to Helix as of April 1, 2018 was \$215 million.

We have \$80 million remaining in our capital commitment to the venture capital investment fund as of April 1, 2018.

We expect that our revenue and the resulting income from operations, as well as the status of each of our new product development programs, will significantly impact our cash management decisions.

Our future capital requirements and the adequacy of our available funds will depend on many factors, including:

- our ability to successfully commercialize and further develop our technologies and create innovative products in our markets;
- scientific progress in our research and development programs and the magnitude of those programs;
- competing technological and market developments; and
- the need to enter into collaborations with other companies or acquire other companies or technologies to enhance or complement our product and service offerings.

## Cash Flow Summary

(In millions)	Q1 2018	Q1 2017
Net cash provided by operating activities	\$255	\$168
Net cash provided by investing activities	12	163
Net cash provided by (used in) financing activities	67	(86 )
Effect of exchange rate changes on cash and cash equivalents	1	1
Net increase in cash and cash equivalents	\$335	\$246

## Operating Activities

Net cash provided by operating activities in Q1 2018 consisted of net income of \$197 million plus net adjustments of \$78 million partially offset by net changes in operating assets and liabilities of \$20 million. The primary non-cash

adjustments to net income included depreciation and amortization expenses of \$39 million, share-based compensation of \$48 million, and accretion of debt discount of \$8 million, partially offset by deferred income taxes of \$11 million. Cash flow impact from changes in net operating assets and liabilities were primarily driven by a decrease in accrued liabilities and an increase in inventory, partially offset by a decrease in accounts receivable and increases in accounts payable and other long-term liabilities.

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Net cash provided by operating activities in Q1 2017 consisted of net income of \$348 million less net adjustments of \$251 million partially offset by net changes in operating assets and liabilities of \$71 million. The primary non-cash adjustments to net income included the gain on deconsolidation of GRAIL of \$453 million, depreciation and amortization expenses of \$38 million, share-based compensation of \$50 million, deferred income tax of \$86 million, impairment of intangible assets of \$23 million, and accretion of debt discount of \$7 million. Cash flow impact from changes in net operating assets and liabilities were driven by an increase in accrued liabilities and a decrease in accounts receivable.

## Investing Activities

Net cash provided by investing activities in Q1 2018 totaled \$12 million. We purchased \$598 million of available-for-sale securities and \$703 million of our available-for-sale securities matured or were sold during the period. We invested \$90 million in capital expenditures, primarily associated with our investment in facilities.

Net cash provided by investing activities in Q1 2017 totaled \$163 million. We received \$278 million from the sale of a portion of our ownership interest in GRAIL. In connection with the sale, we removed \$52 million in cash from our condensed consolidated balance sheet as a result of the deconsolidation. We purchased \$61 million of available-for-sale securities and \$88 million of our available-for-sale securities matured or were sold during the period. We also invested \$83 million in capital expenditures primarily associated with our investment in facilities.

## Financing Activities

Net cash provided by financing activities in Q1 2018 totaled \$67 million. We received \$21 million in proceeds from issuance of common stock through the exercise of stock options and the sale of shares under our employee stock purchase plan, and contributions from noncontrolling interest owners were \$61 million. We used \$13 million to pay taxes related to net share settlement of equity awards.

Net cash used in financing activities in Q1 2017 totaled \$86 million. We used \$101 million to repurchase our common stock and \$22 million to pay taxes related to net share settlement of equity awards. We received \$22 million in proceeds from issuance of common stock through the exercise of stock options and the sale of shares under our employee stock purchase plan, and contributions from noncontrolling interest owners were \$16 million.

## Off-Balance Sheet Arrangements

We do not participate in any transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. During Q1 2018, we were not involved in any “off-balance sheet arrangements” within the meaning of the rules of the Securities and Exchange Commission.

## Critical Accounting Policies and Estimates

In preparing our condensed consolidated financial statements, we make estimates, assumptions and judgments that can have a significant impact on our net revenue, operating income and net income, as well as on the value of certain assets and liabilities on our balance sheet. We believe that the estimates, assumptions and judgments involved in the accounting policies described in Management’s Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 have the greatest potential impact on our financial statements, so we consider them to be our critical accounting policies and estimates. Other than the adoption of ASU 2014-09, Revenue from Contracts with Customers (Topic 606) as

described in note “1. Summary of Significant Accounting Policies” in Part I, Item 1, Notes to Condensed Consolidated Financial Statements provided in this report, there were no material changes to our critical accounting policies and estimates during Q1 2018.

#### Recent Accounting Pronouncements

For summary of recent accounting pronouncements applicable to our condensed consolidated financial statements, see note “1. Summary of Significant Accounting Policies” in Part I, Item 1, Notes to Condensed Consolidated Financial Statements, which is incorporated herein by reference.

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### Consideration Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains, and our officers and representatives may from time to time make, “forward-looking statements” within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as: “anticipate,” “intend,” “plan,” “goal,” “seek,” “believe,” “continue,” “project,” “estimate,” “expect,” “strategy,” “future,” “likely,” “may,” “potential,” “predict,” “show,” or similar words or phrases, or the negatives of these words, may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward looking. Examples of forward-looking statements include, among others, statements we make regarding:

- our expectations as to our future financial performance, results of operations, or other operational results or metrics;
- our expectations regarding the launch of new products or services;
- the benefits that we expect will result from our business activities and certain transactions we have completed, such as product introductions, increased revenue, decreased expenses, and avoided expenses and expenditures;
- our expectations of the effect on our financial condition of claims, litigation, contingent liabilities, and governmental investigations, proceedings, and regulations;
- our strategies or expectations for product development, market position, financial results, and reserves;
- our expectations regarding the integration of any acquired technologies with our existing technology; and
- other expectations, beliefs, plans, strategies, anticipated developments, and other matters that are not historical facts.

Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following:

- challenges inherent in developing, manufacturing, and launching new products and services, including expanding manufacturing operations and reliance on third-party suppliers for critical components;
- the timing and mix of customer orders among our products and services;
- the impact of recently launched or pre-announced products and services on existing products and services;
- our ability to develop and commercialize our instruments and consumables, to deploy new products, services, and applications, and to expand the markets for our technology platforms;
- our ability to manufacture robust instrumentation and consumables;
- our ability to identify and integrate acquired technologies, products, or businesses successfully;
- our expectations and beliefs regarding prospects and growth for the business and its markets;
- the assumptions underlying our critical accounting policies and estimates;
- our assessments and estimates that determine our effective tax rate;
- our assessments and beliefs regarding the outcome of pending legal proceedings and any liability, that we may incur as a result of those proceedings;
- uncertainty, or adverse economic and business conditions, including as a result of slowing or uncertain economic growth in the United States or worldwide; and
- other factors detailed in our filings with the SEC, including the risks, uncertainties, and assumptions described in Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, or in information disclosed in public conference calls, the date and time of which are released beforehand.



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The foregoing factors should be considered together with other factors detailed in our filings with the Securities and Exchange Commission, including our most recent filings on Forms 10-K and 10-Q, or in information disclosed in public conference calls, the date and time of which are released beforehand. We undertake no obligation, and do not intend, to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, or to review or confirm analysts' expectations, or to provide interim reports or updates on the progress of any current financial quarter, in each case whether as a result of new information, future developments, or otherwise.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

There were no substantial changes to our market risks in the three months ended April 1, 2018, when compared to the disclosures in Item 7A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

Item 4. Controls and Procedures.

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

Based on management's evaluation (under the supervision and with the participation of our chief executive officer (CEO) and chief financial officer (CFO)), as of the end of the period covered by this report, our CEO and CFO concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), are effective to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

During Q1 2018, we continued to monitor and evaluate the operating effectiveness of key controls. There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) that materially affected or are reasonably likely to materially affect internal control over financial reporting.

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PART II — OTHER INFORMATION

Item 1. Legal Proceedings.

We are involved in various lawsuits and claims arising in the ordinary course of business, including actions with respect to intellectual property, employment, and contractual matters. In connection with these matters, we assess, on a regular basis, the probability and range of possible loss based on the developments in these matters. A liability is recorded in the financial statements if it is believed to be probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Because litigation is inherently unpredictable and unfavorable results could occur, assessing contingencies is highly subjective and requires judgments about future events. We regularly review outstanding legal matters to determine the adequacy of the liabilities accrued and related disclosures. The amount of ultimate loss may differ from these estimates. Each matter presents its own unique circumstances, and prior litigation does not necessarily provide a reliable basis on which to predict the outcome, or range of outcomes, in any individual proceeding. Because of the uncertainties related to the occurrence, amount, and range of loss on any pending litigation or claim, we are currently unable to predict their ultimate outcome, and, with respect to any pending litigation or claim where no liability has been accrued, to make a meaningful estimate of the reasonably possible loss or range of loss that could result from an unfavorable outcome. In the event opposing litigants or claims ultimately succeed at trial and any subsequent appeals on their claims, any potential loss or charges in excess of any established accruals, individually or in the aggregate, could have a material adverse effect on our business, financial condition, results of operations, and/or cash flows in the period in which the unfavorable outcome occurs or becomes probable, and potentially in future periods.

Item 1A. Risk Factors.

Our business is subject to various risks, including those described in Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, which we strongly encourage you to review. There have been no material changes from the risk factors disclosed in Item 1A of our Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Unregistered Sales of Equity Securities

None.

Purchases of Equity Securities by the Issuer

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.



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Item 6. Exhibits.

Exhibit Number	Description of Document
<u>31.1</u>	Certification of Francis A. deSouza pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
<u>31.2</u>	Certification of Sam A. Samad pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
<u>32.1</u>	Certification of Francis A. deSouza pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
<u>32.2</u>	Certification of Sam A. Samad pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
<u>10.1</u>	Third Amendment to Lease between BMR-Lincoln Center LP and Illumina, dated January 18, 2018
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ILLUMINA, INC.  
(registrant)

Date: April 25, 2018 /s/ SAM A. SAMAD  
Sam A. Samad  
Senior Vice President and Chief Financial Officer