

APPLIED BIOSYSTEMS INC.  
Form 10-K  
August 27, 2008  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**WASHINGTON, D.C. 20549**

**FORM 10-K**

x **Annual Report Pursuant to Section 13 Or 15(d) of the Securities Exchange Act of 1934**  
For the fiscal year ended June 30, 2008

Or

.. **Transition Report Pursuant to Section 13 Or 15(d) of the Securities Exchange Act of 1934**  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 001-04389

**Applied Biosystems Inc.**

(Exact name of registrant as specified in its charter)

**DELAWARE**  
(State or other jurisdiction of  
Incorporation or organization)

**06-1534213**  
(I.R.S. Employer Identification No.)

**301 Merritt 7**

**06851-1070**

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(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code: 203-840-2000

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

| Title of Each Class   | Name of Each Exchange on Which Registered |
|---|---|
| Applied Biosystems Group Common Stock (par value \$0.01 per share)                            | New York Stock Exchange                   |
| Rights to Purchase Series A Participating Junior Preferred Stock (par value \$0.01 per share) | New York Stock Exchange                   |
| Celera Group Common Stock (par value \$0.01 per share)  | N/A                                       |
| Rights to Purchase Series B Participating Junior Preferred Stock (par value \$0.01 per share) | N/A                                       |

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

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

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  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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No

As of December 31, 2007, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value (based upon the average of the high and low price) of our Applied Biosystems Group Common Stock held by non-affiliates was \$5,710,983,856, and the aggregate market value (based upon the average of the high and low price) of our Celera Group Common Stock held by non-affiliates was \$1,262,121,484. As of August 25, 2008, 169,505,575 shares of our Applied Biosystems Group Common Stock were outstanding, and no shares of Celera Group Common Stock were outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

**Annual Report to Stockholders for Fiscal Year ended June 30, 2008 Parts I, II, and IV.**

**Proxy Statement for 2008 Annual Meeting of Stockholders - Part III.**

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**PART I**

**Item 1. Business  
Company Overview**

Throughout this report, terms such as the company, Applied Biosystems, we, us, or our may be used to refer to Applied Biosystems Inc.

***Business Overview***

We are a global leader in the development and marketing of instrument-based systems, consumables, software, and services for academic research, the life science industry, and commercial markets. We commercialize innovative technology solutions for DNA, RNA, protein, and small molecule analysis. Customers across the disciplines of academic and clinical research, pharmaceutical research, and manufacturing, forensic DNA analysis, and agricultural biotechnology use our products and services to accelerate scientific discovery, improve processes related to drug discovery and development, detect potentially pathogenic microorganisms, and identify individuals based on DNA sources. We have a comprehensive service and field applications support team for a global installed base of high-performance genetic and protein analysis solutions. A more complete description of our products and services, and developments during our 2008 fiscal year, is set forth below in this Item 1.

Mr. Stevenson was promoted to President and Chief Operating Officer of the company in August 2008. Prior to that, in December 2007, he was promoted to the positions of Senior Vice President of our company and President and Chief Operating Officer of the Applied Biosystems business. Mr. Stevenson previously had been a Vice President of the company and Executive Vice President of the Applied Biosystems business.

We derive more than 10% of our consolidated revenues from instruments and consumables. For information on revenues from these sources in our 2008, 2007, and 2006 fiscal years, refer to pages 28 and 31 of Management's Discussion and Analysis in our 2008 Annual Report, which pages are incorporated herein by reference.

The risk factors associated with our company and our business, including our pending merger with Invitrogen Corporation described below, are set forth below in Item 1A of this report under the headings Risk Factors.

***Corporate History and Structure; Celera Separation***

We were incorporated in 1998 under the laws of the State of Delaware. We are the successor to The Perkin-Elmer Corporation, a corporation originally formed in 1939, as a result of a recapitalization completed in May 1999. As part of the 1999 recapitalization, we established the following two classes of common stock:

Applied Biosystems Group Common Stock, which we refer to in this report as Applied Biosystems stock ; and

Celera Group Common Stock, which we refer to in this report as Celera stock.

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These two classes of stock, sometimes referred to as tracking stock, were intended to reflect separately the relative performance of our Applied Biosystems group and Celera group businesses. These businesses were operated under our tracking stock structure as separate units of a single company and they were not separate legal entities. As further described below, we have terminated the tracking stock structure and the Celera group business has been separated from our company. The separated Celera group is a diagnostics business delivering personalized disease management through a combination of products and services incorporating proprietary discoveries. This business operates through two principal business units, a clinical laboratory testing service business and an *in vitro*, meaning outside of the living body, diagnostic products business. The services business, conducted through the recently-acquired subsidiary Berkeley HeartLab, Inc., or BHL, offers a broad portfolio of clinical laboratory tests and disease management services to help healthcare providers improve cardiovascular disease treatment regimens for patients. The *in vitro* diagnostic, or IVD, products business develops, manufactures, and oversees the commercialization of molecular diagnostic products, most of which are commercialized through an alliance with Abbott Molecular, a subsidiary of Abbott Laboratories. The separated Celera group business also has licensed other relevant diagnostic technologies to clinical laboratories to provide personalized disease management in cancer and liver disease.

In August 2007, we announced that our Board of Directors had retained Morgan Stanley to explore alternatives to the company's tracking stock structure, including the possibility of creating two independent publicly-traded companies in place of the Applied Biosystems group and Celera group businesses. Further to that announcement, on July 1, 2008, we completed the separation of all of the business, assets, and liabilities of the Celera group from our remaining business. The separation was completed by means of a redemption of each outstanding share of Celera stock in exchange for one share of common stock of Celera Corporation, a Delaware corporation, which now holds all of the business, assets, and liabilities previously attributed to the Celera group. On July 1, 2008, following the consummation of the Celera group separation, Celera Corporation became an independent, publicly-traded company whose shares are listed on The NASDAQ Stock Market under the symbol **CRA**. The Applied Biosystems group became our only business and Applied Biosystems stock became our only class of common stock outstanding. In connection with the Celera separation, we changed our corporate name from Applera Corporation to Applied Biosystems Inc. More information about the separation of the Celera group is set forth below under the heading **Celera Separation**.

### ***Pending Invitrogen Merger***

On June 11, 2008, we entered into an Agreement and Plan of Merger with Invitrogen Corporation and Atom Acquisition, LLC, a direct wholly-owned subsidiary of Invitrogen. Pursuant to the terms and conditions of the Invitrogen Merger Agreement, we will merge with and into Atom Acquisition, with that entity continuing as the surviving entity and a direct wholly-owned subsidiary of Invitrogen. Upon completion of the transaction, Invitrogen will expand its board of directors from nine to twelve members and appoint three of our current directors to the board of Invitrogen. The parties currently expect the merger to be completed in the fall of 2008, subject to satisfactions of the conditions specified in the Merger Agreement. More information about the Invitrogen Merger Agreement is set forth below under the heading **Invitrogen Merger Agreement**.

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### ***Accelerated Share Repurchase; Term Loan***

On April 26, 2007, we announced that our Board of Directors authorized the repurchase of up to 18,400,000 shares of Applied Biosystems stock. On August 8, 2007, we announced that our Board of Directors increased this authorization to \$1.2 billion (in the aggregate, including approximately \$100 million of Applied Biosystems stock previously repurchased under the authorization prior to the increase), which at market prices on that date represented approximately 20% of the outstanding shares of Applied Biosystems stock, or double the authorization prior to the increase. The increased authorization has no time restrictions and delegates to management discretion to purchase shares at times and prices it deems appropriate through open market purchases, privately negotiated transactions, tender offers, exchange offers, or otherwise.

Subsequent to the increase in the authorization, we engaged in an Accelerated Share Repurchase Transaction with Morgan Stanley & Co. Incorporated. Pursuant to this transaction, we paid Morgan Stanley \$600 million, plus transaction costs, in exchange for a total of approximately 17.9 million shares at an average price per share of \$33.5276, excluding transaction costs. This transaction was completed in January 2008. Under the Invitrogen Merger Agreement, described above, we are restricted from repurchasing any more shares of Applied Biosystems stock.

On August 27, 2007, we entered into a Term Loan Agreement with Bank of America, N.A., as administrative agent, and the initial lenders named therein, pursuant to which we received an unsecured term loan in an aggregate amount of \$100,000,000. We funded the Accelerated Share Repurchase transaction using the proceeds of this term loan, borrowings of \$175,000,000 under our existing corporate credit facility, and U.S. cash reserves, funds from domestic operations, and other sources. As of the end of our 2008 fiscal year, we had repaid all of the borrowings under our corporate credit facility, and subsequently, in July 2008, we repaid \$50,000,000 of the term loan.

### **Available Information**

#### ***Website***

We maintain an Internet website at [www.appliedbiosystems.com](http://www.appliedbiosystems.com). All interested persons can access the following information on this website free of charge:

our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed with or furnished to the Securities and Exchange Commission;

Section 16 insider transaction reports, which include Forms 3, 4, and 5, filed by our officers and directors with the SEC; and

information relating to our corporate governance, including: our Corporate Governance Guidelines; our Code of Business Conduct and Ethics, which is applicable to our officers, directors, and employees; the charters for the Audit/Finance Committee, the Management Resources Committee, and the Nominating/Corporate Governance Committee of our Board of Directors; information on how to communicate with our Board of Directors, including our non-management directors; and information on how to report valid complaints and concerns to the Company regarding accounting, internal accounting controls, or auditing matters.



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We make our SEC reports and the insider transaction reports available on our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC.

The following table indicates how to access the documents described above on our website. In addition, you can obtain copies of these materials by calling our corporate Secretary at 203-840-2000 or by making a request in writing mailed to: Attention: Secretary, Applied Biosystems Inc., 301 Merritt 7, Norwalk, CT 06851-1070.

|                                     |  |
|-------------------------------------|--|
| <b>Website Address:</b>             | www.appliedbiosystems.com  |
| <b>SEC Filings:</b>                 | Click on the link to <a href="#">SEC Filings</a> in the <a href="#">Investors &amp; Media</a> section of the website, and then click again on the link to <a href="#">SEC Filings</a> .        |
| <b>Insider Transaction Reports:</b> | Click on the link to <a href="#">SEC Filings</a> in the <a href="#">Investors &amp; Media</a> section of the website and then click again on the link to <a href="#">SEC Insider Filings</a> . |

**Corporate Governance Information:** Click on the link to [Corporate Governance](#) in the [Investors & Media](#) section of the website. Except for any documents on our website that are expressly incorporated by reference into this report, the information contained on our website is not incorporated by reference into this report and should not be considered to be a part of this report. Our website address is included in this document as inactive textual references only.

### ***Information Incorporated by Reference***

The SEC allows us to incorporate by reference some information from parts of other documents filed with the SEC, including:

our Annual Report to Stockholders for our 2008 fiscal year, which we refer to in this report as our 2008 Annual Report ; and

our Proxy Statement relating to our 2008 Annual Meeting of Stockholders, which we refer to in this report as our 2008 Proxy Statement.

When we incorporate by reference, that means that we are referring you to important information in other documents that have been filed with the SEC rather than repeating that information in this report. We recommend that you refer to the information that we indicate is contained in the other documents and which is incorporated by reference into this report. The portions of our 2008 Annual Report that are incorporated by reference into this report are included as Exhibit 13 to this report.

### **Celera Separation**

On May 8, 2008, we entered into a Separation Agreement with Celera Corporation, at that time one of our wholly-owned subsidiaries, to separate all of the business, assets, and liabilities of the Celera group from our remaining business. This separation was completed on July 1, 2008, by means of a redemption of each outstanding share of Celera stock in exchange for one share of

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common stock of Celera Corp., which now holds all of the business, assets, and liabilities previously attributed to the Celera group. On July 1, 2008, following the consummation of the Celera separation, Celera Corp. became an independent, publicly-traded company whose shares are listed on The NASDAQ Stock Market under the symbol CRA. The Applied Biosystems group became our only business and Applied Biosystems stock became our only class of outstanding common stock. In connection with the Celera separation, we changed our corporate name from Applera Corporation to Applied Biosystems Inc.

Pursuant to the Separation Agreement, we entered into agreements with Celera Corp., each dated as of July 1, 2008, including a Tax Matters Agreement and an Operating Agreement. The descriptions below of the Tax Matters Agreement and the Operating Agreement are qualified in their entirety by reference to the full text of these agreements, which are exhibits to this report.

### ***Tax Matters Agreement***

The Tax Matters Agreement with Celera Corp. governs our and Celera Corp.'s respective rights, responsibilities and obligations after the separation with respect to taxes, including ordinary course of business taxes and taxes, if any, incurred as a result of any failure of the separation, together with certain related transactions, to qualify as a tax-free exchange for U.S. federal income tax purposes within the meaning of Sections 355 and 368(a)(1)(D) of the Internal Revenue Code of 1986, or the Code, including as a result of Section 355(e) of the Code. Under the Tax Matters Agreement, we generally will be responsible for the payment of all income and non-income taxes attributable to Celera Corp.'s operations pre-separation and Celera Corp. generally will be responsible for the payment of all income and non-income taxes attributable to Celera Corp.'s operations post-separation. In addition, we will pay Celera Corp. for certain available tax benefits resulting from U.S. federal and state tax credits and losses attributable to Celera Corp.'s business that arose prior to the separation to the extent such credits are not first utilized by us.

Notwithstanding the foregoing, under the Tax Matters Agreement, Celera Corp. also generally will be responsible for any taxes imposed on us that arise from the failure of the separation, together with certain related transactions, to qualify as a tax-free exchange for U.S. federal income tax purposes within the meaning of Sections 355 and 368(a)(1)(D) of the Code, if such failure to qualify is attributable to actions, events or transactions relating to Celera Corp.'s stock, assets or business, or a breach of the relevant representations or covenants made by Celera Corp. in the Tax Matters Agreement. In addition, Celera Corp. generally will be responsible for a percentage of any taxes that arise from the failure of the separation, together with certain related transactions, to qualify as a tax-free exchange for U.S. federal income tax purposes within the meaning of Sections 355 and 368(a)(1)(D) of the Code, if such failure is for any reason for which neither Celera Corp. nor we are responsible. Under the Tax Matters Agreement, Celera Corp. will also be required to indemnify us for a portion of our tax cost resulting from our and Celera Corp.'s entering into an intellectual property supply agreement and other intellectual property license agreements in connection with the separation. The Tax Matters Agreement also imposes restrictions on our and Celera Corp.'s ability to engage in certain actions and sets forth our and Celera Corp.'s obligations with respect to the filing of tax returns, the administration of tax contests, assistance and cooperation and other matters.

### ***Operating Agreement***

The Operating Agreement includes operating principles that govern our and Celera Corp.'s conduct concerning, and use of, specified instruments and other technologies that were

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utilized by one or both of the Applied Biosystems and Celera groups prior to the separation. A summary of these operating principles is set forth below.

*Instruments*

Celera Corp. will have continued access to our capillary electrophoresis, or CE, sequencers and associated consumables as they had been provided by the Applied Biosystems group prior to the separation in connection with the alliance with Abbott Laboratories. Celera Corp. will also have access to our current and future CE sequencers and associated consumables in the same manner as our other customers. We expect that Celera Corp. will develop a new U.S. Food and Drug Administration, or FDA, compliant diagnostic instrument based on our CE technology. Celera Corp. will pay the costs of developing this new instrument, including any incremental costs that we incur.

We will be permitted to sell our CE sequencers to any end-user for any purpose. We will also be permitted to sell our CE sequencers as an original equipment manufacturer, or OEM, except that we will not be able to OEM the CE sequencers for commercialization of human diagnostic tests for specified conditions for a period of three years after the date of the separation outside of Asia, Africa, the Middle East, and South America. We will generally not ourselves commercialize these same tests anywhere in the world, or enter into an agreement with a third party to co-promote or co-market CE sequencers to be used with these same tests outside of Asia, Africa, the Middle East, and South America, for the same three-year period.

We will be the preferred supplier of Celera Corp.'s next generation real-time instrument. If we and Celera Corp. are unable to agree on terms for this instrument, Celera Corp. will be given access to our intellectual property to the extent necessary to make or to have a next generation real-time system made for Celera Corp. by a third party.

There will be no restrictions on development or commercialization of next generation sequencing instruments for either party. Except for the restrictions under a supply agreement between us and Abbott relating to Abbott's *m2000* system, we will be permitted to sell real-time instruments to any end user for any purpose. Except as provided under the Abbott supply arrangement, we will not OEM real-time instruments to any third party for use in the human *in vitro*, meaning outside the living body, diagnostics, or HIVD, field unless the third party has obtained a license to our real-time intellectual property in the HIVD field. However, the OEM customer can not commercialize human diagnostic tests for specified conditions on these instruments for a period of three years after the date of the separation.

*Reagents*

In general, we will not knowingly commercialize any sequence-specific primers and probes

for incorporation by a third party product manufacturer into its human diagnostic products, or

to a clinical laboratory for performing home-brew human diagnostic testing for performing testing for specified conditions for three years after the date of the separation. This restriction does not apply to Asia, Africa, the Middle East, or South America. In addition, we will

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generally not ourselves commercialize, directly or through a distributor, analyte specific reagents, or ASRs, or human diagnostic kits for testing the same specified conditions for a period of three years after the date of the separation.

### *Licensing*

We and Celera Corp. will work together in licensing specified Applied Biosystems intellectual property to third parties in the HIVD field. Revenues from these licenses will be shared equally between us and Celera Corp.

### *Other Provisions*

We will not have any rights to Celera Corp.'s proprietary diagnostic markers in the HIVD field, and there will be no restrictions on Celera Corp.'s ability to license its proprietary diagnostic marker intellectual property. Celera Corp. will not commercialize, directly or through a distributor, products in forensics and applied markets that incorporate intellectual property that we own or control, unless Celera Corp. obtains a license to the relevant intellectual property from us on standard third-party terms.

In addition, the three year time restrictions on us described above do not apply to the commercialization of a competing product acquired as part of an acquisition of a third party by us, nor would it prohibit an acquiror of us from continuing to commercialize a competing product following an acquisition.

## **Invitrogen Merger Agreement**

On June 11, 2008, we entered into an Agreement and Plan of Merger with Invitrogen Corporation and Atom Acquisition, LLC, a direct wholly-owned subsidiary of Invitrogen. Pursuant to the Invitrogen Merger Agreement, we will merge with and into Atom Acquisition, with that entity continuing as the surviving entity and a direct wholly-owned subsidiary of Invitrogen.

Under the terms of the Invitrogen Merger Agreement, holders of Applied Biosystems stock will receive \$17.10 in cash and 0.4543 shares of Invitrogen common stock for each share of Applied Biosystems stock they own. Alternatively, holders of Applied Biosystems stock may elect to receive either \$38.00 in cash, or 0.8261 shares of Invitrogen common stock, for each share of Applied Biosystems stock they own, subject to proration. If the 20-day volume-weighted average price per share, or VWAP, of Invitrogen's common stock is below \$46.00 three business days prior to the close of the transaction, each holder of Applied Biosystems stock will also receive an additional cash payment of up to \$2.31 with respect to each share of Invitrogen common stock it receives in the merger. The actual amount of this additional cash payment will be based on a formula set forth in the Merger Agreement, and is intended to maintain a total value of \$38.00 per share of Applied Biosystems stock, for holders who are paid all or part of the merger consideration in shares of Invitrogen common stock, if the Invitrogen VWAP three business days prior to the closing is within the range of \$43.69 to \$46.00.

Upon completion of the transaction, Invitrogen will expand its board of directors from nine to twelve members and appoint three of our current directors to the board of Invitrogen. The parties currently expect the merger to be completed in the fall of 2008.

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Completion of the Invitrogen merger is subject to conditions specified in the Merger Agreement, including (i) adoption of the Merger Agreement by the Company's stockholders, (ii) Invitrogen stockholders' approval of the issuance of shares of Invitrogen's common stock in the merger and approval of an amendment to Invitrogen's certificate of incorporation to increase the number of authorized shares of Invitrogen's common stock, (iii) the effectiveness of Invitrogen's registration statement on Form S-4 with respect to the merger and the issuance of Invitrogen's common stock in the merger, and (iv) the receipt of approval for the European Community Merger Regulation as well as certain other foreign antitrust or competition laws.

We and Invitrogen have each made customary representations, warranties, and covenants in the Merger Agreement, including, among others, that (a) each of us and Invitrogen will cause a meeting of its stockholders to be held to consider the adoption and approval of the Merger Agreement and approval of Invitrogen's issuance of its common stock in the merger, respectively, and (b) our and Invitrogen's boards of directors will recommend that their stockholders adopt and approve the Merger Agreement and approve Invitrogen's issuance of its common stock in the merger, as applicable, subject to some exceptions applicable to us specified in the Merger Agreement.

The Merger Agreement may be terminated under certain circumstances, including, subject to the terms of the Merger Agreement, if our Board of Directors determines to accept an unsolicited superior proposal (as that term is defined in the Merger Agreement). The Merger Agreement provides that, if the Merger Agreement is terminated under certain circumstances, we or Invitrogen will be required to pay the other a termination fee of \$150 million.

The foregoing description of the Merger Agreement is qualified in its entirety by reference to the Merger Agreement. The Merger Agreement, which is included as an exhibit to this report, provides investors with information regarding its terms and contains representations and warranties of each of us and Invitrogen. The assertions embodied in those representations and warranties are qualified by information in a confidential disclosure schedule delivered in connection with the signing of the Merger Agreement but which is not part of the exhibit. The disclosure schedule contains information that modifies, qualifies, and creates exceptions to the representations and warranties set forth in the Merger Agreement. Moreover, certain representations and warranties were made as of a specific date, may be subject to a contractual standard of materiality different from what might be viewed as material to stockholders, or may have been used for purposes of allocating risk between the respective parties rather than establishing matters as facts. Investors should read the Merger Agreement together with the other information concerning us and Invitrogen that each company publicly files in reports and statements with the United States Securities and Exchange Commission.

## **Scientific Background**

All living organisms contain biological molecules. The most numerous are in the categories of: nucleic acids, which include DNA and RNA; proteins; carbohydrates; and lipids. Biological molecules are typically much larger and more complex than common molecules, and there is a wide diversity in the types of biological molecules present in living organisms. These characteristics make the analysis of biological molecules significantly more complex than the analysis of smaller compounds. Key advances in therapeutics have often come from an understanding of either proteins or DNA.

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DNA molecules provide instructions that ultimately control the synthesis of proteins within a cell, a process referred to as gene expression. DNA molecules consist of chemical subunits, called nucleotides, bound in two long strands formed by a chemical backbone made up of sugar and phosphate molecules. There are four nucleotides in DNA—adenine, cytosine, guanine, and thymine—often abbreviated with their first letters A, C, G, and T and often referred to as bases. In a DNA molecule, the nucleotides in the two strands are bound together in pairs to form a structure that resembles a twisted ladder, which is often referred to as a double helix. The bound pairs of nucleotides, which form the rungs of the ladder, are often referred to as base pairs.

Genes are individual segments of these DNA molecules that carry the specific information necessary to perform particular biological functions including, for example, to construct particular proteins. Genes may contain from several dozen to tens of thousands of nucleotides. The entire collection of DNA in an organism, called the genome, may contain a wide range of nucleotides, including as few as 4 million nucleotides in the case of simple bacteria and 3.1 billion base pairs of nucleotides in the case of human beings. Proteins are the key biological molecules that function in all aspects of living things such as growth, development, and reproduction.

RNA molecules are similar to DNA in structure and are essential for biological function through a number of biochemical activities within the human body. There are different types of RNA molecules, each of which has a different function. For example, messenger RNA, or mRNA, the most widely understood form of RNA, acts as an intermediary between DNA and protein, transcribing the genetic code from DNA into proteins. Another example is microRNA, or miRNA, a class of small RNA molecules discovered by scientists during the last few years which are thought to regulate the activity of more than half of all known genes. Several research groups have provided evidence that miRNAs may act as key regulators of processes such as cell proliferation and differentiation, apoptosis, or cell death, and fat metabolism.

Principally driven by the biotechnology revolution and the increasing focus on DNA, researchers are developing a better understanding of DNA's role in human disease. An increased appreciation of how DNA ultimately determines the functions of living organisms has generated a worldwide effort to identify and sequence genes of many organisms, including the genes that make up the human genome. We believe the best scientific evidence to date indicates that the number of genes in the human genome that code for proteins is between 25,000 and 30,000. The study of genes and other genetic material of organisms is now commonly referred to as genomics.

The field of genomics research generally includes three broad categories of analysis, consisting of sequencing, genotyping, and gene expression studies:

Sequencing is performed to determine the exact order of the individual nucleotides in a DNA strand. Sequencing was used to identify the nucleotides in the entire human genome and other species. It has also been used to identify naturally occurring genetic variations in the human genome, which are referred to as single nucleotide polymorphisms, or SNPs. Scientists believe that SNPs can be correlated with, for example, susceptibility to disease, disease prognosis, therapeutic efficacy, and therapeutic toxicity, and therefore may have diagnostic or therapeutic utility.

Genotyping is performed to determine a particular sequence variant of a gene and its particular association with an individual's DNA. Genotyping is not performed to determine the complete structure of the gene, but rather is performed to determine if

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the particular DNA sequence variant, typically a SNP, can be associated with, for example, susceptibility to a particular disease or response to a particular drug.

Gene expression is performed to determine whether a particular gene is expressed, or present, and in some cases at what levels, in a relevant biological material. This analysis can be used, for example, to measure and compare gene activity in various biological samples, such as samples from populations of healthy and diseased individuals, or from populations at different stages of disease development. These types of studies may be useful in the development of diagnostic tests and therapeutic treatments.

As researchers learn more about DNA and RNA, they are also developing a better understanding of the role of proteins in human disease through efforts in the field of proteomics, the study of proteins expressed, or coded, by genes. Proteins are the products of genes and, along with gene expression and modification, are believed to be key drivers and mediators of cellular function and biological system activity. Proteins are large biological molecules made up of peptides, and peptides are made up of amino acids chemically linked together in long chains and frequently modified by the addition of chemical units such as carbohydrate groups or phosphate groups. The understanding and treatment of disease today involves the study of genes and the proteins they code for, and frequently involves the measurement of a drug's ability to bind to specific proteins in the body.

Although DNA contains the code for proteins, scientists have discovered that the body may modify proteins after they have been made in cells. These modifications, referred to as post-translational modifications, can alter a protein's function, leading to changes in the biological reactions that take place in cells, which researchers refer to as biological pathways. These post-translational modifications complicate the study of proteins, because scientists studying proteins and seeking to understand their role in health and disease need to know more about the characterization of proteins than just their amino acid sequence, which comes from their genetic, or DNA, code.

We believe that gene and protein research will increase as companies in the pharmaceutical and biotechnology industries seek to improve their drug discovery and development efforts. We also believe that ongoing drug discovery and development efforts will increase research of cells as researchers seek to further understand how drugs work in the body.

The growth in DNA, protein, and other life science research has created the need for systems that facilitate the collection, organization, and analysis of the large amounts of data generated by this research. This demand has led to the development of the science of bioinformatics. The science of bioinformatics seeks to blend biology and computing to transform massive amounts of data into useful information.

### **Products for the Molecular Biology Market**

Customers in the molecular biology market use systems for the analysis of nucleic acids including DNA and RNA. We have developed technologies, instrument systems, and consumables products that address the needs of a wide array of applications within this market, including for example: basic research; pharmaceutical and diagnostic discovery and development; biosecurity testing, including infectious disease analysis; human identity testing, including forensic and paternity testing; and food and environment quality and safety testing. These technologies,

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systems, and consumable products support key methods of analysis, including DNA sequencing, genotyping, and gene expression studies, which are described in further detail above in Item 1 of this report under the heading Scientific Background.

***PCR and Real-Time PCR Systems and Related Consumables***

Polymerase chain reaction, commonly referred to as PCR, is a process in which a short strand of DNA is copied multiple times, or amplified, so that it can be more readily detected and analyzed. Our PCR product line includes amplification instruments, known as thermal cyclers, several combination thermal cyclers and PCR detection systems, known as real-time PCR systems, and reagents, disposables, and software necessary for the PCR amplification and detection process.

The following table lists the thermal cyclers that we offer:

| <b>Instrument</b>                        | <b>Capacity/Speed</b>              |
|--|------------------------------------|
| 9800 Fast PCR System                     | 96 well/Fast                       |
| GeneAmp® PCR System 9700 Thermal Cyclers | 60, 96, Dual 96, and Dual 384 well |
| Applied Biosystems 2720 Thermal Cycler   | 96 well                            |
| Veriti 96-Well Fast Thermal Cycler       | 96 well/Fast                       |

Technologically, these instruments are distinguished among each other primarily based on: their capacity for simultaneously processing multiple samples, determined based on the number of consumable wells that can be accommodated; the speed at which the thermal cycling process is completed; and features supporting the development of experimentation protocols to increase the accuracy and efficiency of the PCR process. The Veriti thermal cycler uses our first-of-its-kind Veriflex Blocks temperature-control technology, which allows users to simultaneously control the temperature in six separate blocks within the thermal cycler to determine the optimum temperature protocols for the particular sample being copied. This temperature control technology differentiates the Veriflex Blocks from current gradient technologies offered by other companies, which less-precisely regulate gradients of temperature across a single block within the instrument.

The following table lists the PCR systems that we offer:

| <b>Instrument</b>                              | <b>Capacity/Speed</b>     |
|--|---------------------------|
| Applied Biosystems 7900HT Real-Time PCR System | 96 or 384 well/Fast       |
| Applied Biosystems 7500 Real-Time PCR System   | 96 well/Available as Fast |
| Applied Biosystems 7300 Real-Time PCR System   | 96 well                   |
| StepOne Plus Real-Time PCR System              | 96 well/Fast              |
| StepOne Real-Time PCR System                   | 48 well/Fast              |

All of these real-time PCR instruments are enhanced versions of our thermal cyclers, which are described above. However, unlike a general PCR instrument, which is used only to amplify a sample, these instruments are used to detect and for some applications quantify a sample during the PCR amplification process for purposes of conducting, for example, gene expression or genotyping analysis. Technologically, these instruments are distinguished among each other primarily based on: their capacity for simultaneously processing multiple samples, determined based on the number of consumable wells that can be accommodated; the speed at which the detection and quantification process is completed and the level of automation; and the applications for which the instruments can be used.



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The model 7900HT Fast system and the model 7500 Fast system are our most advanced real-time PCR systems, and can complete the detection and quantification process substantially faster than other instruments that we offer. The model 7900HT systems can incorporate optional robotics to enable large-scale gene expression and genotyping studies. The StepOne and higher capacity StepOne Plus systems were developed in response to demand for highly functional but easy to use and less expensive real-time PCR systems. The StepOne Plus system was added to the product line in our 2008 fiscal year.

Generally, the PCR and real-time PCR product lines are designed to offer instruments suitable for use by a wide range of users, from individual researchers to research laboratories conducting high-volume research. The suitability of any particular system for any researcher or research laboratory will depend on the nature of the work being performed and the capital budget of the researcher or research laboratory. We provide servicing and customer support for the PCR and real-time PCR systems described above, as well as some previously-marketed systems that remain in use by some customers.

Our PCR product line also includes reagents and disposables for use in the PCR process. PCR reagents include specialized enzymes used to enable the PCR amplification process. Enzymes represent a class of proteins which activate biological processes. PCR enzymes are optimized to efficiently make copies of a segment of DNA while exposed to the high temperatures required by the PCR process. We offer a range of products containing these PCR enzymes. These include products for use in general PCR, as well as special formulations designed for real-time PCR applications. Disposables include plastic devices which are used to hold DNA samples and PCR reagents throughout the PCR amplification process. A number of different disposable devices are available for use with our full range of PCR and real-time PCR instruments.

Our real-time PCR systems enable TaqMan<sup>®</sup> chemistry, a unique PCR technology that can be used both for measurement of gene expression and for genotyping. TaqMan gene expression chemistry detects the product of PCR amplification and quantifies the amount of the target gene sequence present in the sample during the amplification process. This technique is referred to as quantitative real-time PCR. The real-time PCR systems analyze a sample by measuring fluorescence resulting from the reaction of the TaqMan chemistry and the sample. This product line has been widely accepted in the scientific research market. Our TaqMan Gene Expression Assays and SNP Genotyping Assays are TaqMan chemistry-based assays designed for use on our real-time PCR systems. These products are described below under the heading Products for the Molecular Biology Market Genomic Assays. TaqMan chemistry is our most sensitive and specific method for real-time PCR. However, our real-time PCR systems also support some other commonly used real-time PCR methods and we provide reagents to enable those other methods.

We offer a proprietary TaqMan Array, which was jointly developed with 3M Company, and a modified version of our model 7900HT system to support the TaqMan Arrays for real-time PCR applications. The TaqMan Arrays are consumable laminated plastic and metal sheets containing 384 fluid channels and wells, sometimes referred to by scientists as microfluidic cards. They are designed for use instead of plastic trays with sample wells generically referred to as microtiter plates, which are used in many types of laboratory analyses, including gene expression or genotyping studies on our instruments. The fluid channel design of the TaqMan Arrays enables researchers to automatically route a sample to the reaction wells rather than doing this by hand or using expensive and complex robotics as is required when using microtiter plates. We offer the TaqMan Arrays pre-loaded with our inventoried human, mouse, and rat TaqMan Gene Expression Assays. Using an on-line ordering system, customers can select the assays to be pre-loaded onto,

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as well as the configuration of those assays on the TaqMan Arrays. We also offer a limited selection of inventoried TaqMan Arrays that are pre-loaded with a fixed panel of gene expression assays. For example, we offer Gene Signature Panels used to detect and quantify the expression of difficult-to-detect genes that we believe are important to the drug research needs of the pharmaceutical industry. We also offer Human and Rodent MicroRNA Panels used to identify and quantify some of the most prevalent microRNAs. Our TaqMan assays are described below under the heading **Products for the Molecular Biology Market Genomic Assays**.

### ***Genomic Assays***

Our genomic assays are chemical tests used to measure a DNA or RNA target. A genomic assay combines a set of pre-selected oligonucleotides, sometimes referred to as oligos, which are synthetic single-stranded pieces of DNA, with other analytical reagents that allow a researcher to measure differences between samples of genetic material. This product line includes the following types of assays:

Gene expression assays, which are chemical tests used to measure how much messenger RNA, or mRNA, is being produced from a specific gene in the cells of a tissue sample.

MicroRNA assays, which are gene expression assays used for the detection and quantitation of a particular type of RNA referred to as microRNA.

Genotyping assays, which are chemical tests used to measure the presence or absence of a specific genetic sequence variation or mutation among DNA samples from different populations that can be used to correlate genetic traits with physical traits such as disease susceptibility or drug response. The sequence variants that our genotyping assays test for are referred to as single nucleotide polymorphisms, or SNPs.

The following table provides further detail on the assays that we offer. These assays are designed to be used with our TaqMan<sup>®</sup> chemistry-based real-time PCR systems, and some of them can be ordered on the TaqMan<sup>®</sup> Arrays, which are discussed above in this description of our business under the heading **PCR and Real-Time PCR Systems and Related Consumables**.

**Table of Contents****Gene Expression Assays**TaqMan<sup>®</sup> Gene Expression Assays (Inventoried)**Description**

Ready-made gene expression assays that can be ordered from our inventory

TaqMan<sup>®</sup> Gene Expression Assays (Made to order)

Pre-designed gene expression assays that can be made to order

Custom TaqMan<sup>®</sup> Gene Expression Assays

Service for the manufacture of custom TaqMan chemistry-based gene expression assays based on targets supplied by researchers

TaqMan<sup>®</sup> MicroRNA Assays

Ready-made microRNA expression assays that can be ordered from our inventory

**SNP Genotyping Assays**TaqMan<sup>®</sup> Pre-Designed SNP Genotyping Assays**Description**

Pre-designed SNP genotyping assays that can be made to order

Custom TaqMan<sup>®</sup> SNP Genotyping Assays

Service for the manufacture of custom TaqMan chemistry-based SNP genotyping assays based on targets supplied by researchers

TaqMan<sup>®</sup> Drug Metabolism Genotyping Assays

Ready-made SNP genotyping assays specifically targeting genes involved in drug metabolism that can be ordered from our inventory

Our library of ready-made and pre-designed SNP genotyping and gene expression assays includes millions of human SNP genotyping assays and almost one million gene expression assays for the human, mouse, rat, Arabidopsis (plant), Drosophila (fruit fly), C. elegans (worm), Rhesus (monkey), zebrafish (fish), canine (dog), and bovine (cow) genomes. The ability to study the mouse and rat genomes is important to researchers involved in, for example, therapeutic research and development. Mice and rats have genes that are believed to correspond to human genes and the results of disease research or safety, toxicology, or other studies on mice or rats may therefore be correlated to humans with corresponding genetic characteristics. The other species for which we provide assays are also scientifically important model organisms, used in for example medical, agricultural, plant science, or other research. We continue to evaluate the addition of other species based on research needs.

The microRNA assays product line currently includes over 1,500 human, mouse, rat, Arabidopsis, Drosophila, and C. elegans miRNA assays. Currently, all of these assays are based on sequences in the Wellcome Trust Sanger Institute miRNA Registry, which is the industry standard reference miRNA database. We offer some of these assays as fixed panel TaqMan Arrays.

The availability of our genomic assays offers advantages to researchers, particularly those who might otherwise seek to design and then prepare assays on their own, a relatively time consuming and expensive process. We believe that the use of our assays can reduce experiment setup time, decrease assay cost, and accordingly facilitate experiments with many genes in parallel. Also, the use of sets of standard and validated assays facilitates comparisons of data between laboratories.

**CE Instruments and the SOLiD System Next Generation Sequencing System**

Our genetic analysis instruments include our capillary electrophoresis, or CE, instruments and our new SOLiD System. Our CE instruments have been used extensively to obtain the DNA sequence of the human genome and the genomes of other species and to identify SNPs and other

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genetic mutations. With the completion of human genome sequencing and the completion of the sequencing of other important genomes, we believe that researchers are transitioning to performing an increasing amount of resequencing, which is also referred to by some researchers as medical or directed sequencing or resequencing. Resequencing involves the sequencing of a selected segment or segments of a genome, such as a pre-selected set of genes, in one or more organisms after a reference genome for that organism has been determined. The DNA sequence information of these organisms is then compared to the known reference sequence to determine whether any genetic variations are present. Scientists may use this information, for example, to better understand the causes and prevention of disease, facilitate the development of better and more targeted therapies and diagnostics, and understand individual response to treatment. This may be particularly true with a disease such as cancer, which scientists are finding to be associated with a large number of unique DNA mutations that may not be identified using commercially-available genotyping tools, including ours.

We expect that our CE genetic analysis instruments and associated systems and consumables will continue to service a diverse range of genetic applications for the foreseeable future. We believe that the technology will remain vital for some existing applications such as medical sequencing, forensics, and quality and safety testing. However, CE genetic analysis instruments generally are subject to inherent technological limitations that restrict the extent to which the speed, capacity, and cost-efficiency of the genetic analysis can be increased. Accordingly, for some potential applications CE genetic analysis is not well suited or cannot be performed and a faster, higher throughput, and more cost-effective technology is needed. As a result, within the scientific community and molecular biology industry there has been increasing interest and investment in the development of so-called next-generation sequencing technologies that meet the needs of these applications without sacrificing the quality of analytical results. Scientists and researchers sometimes refer to the ultimate goal of these efforts as being the \$1,000 genome, which is the ability to sequence the entire genome of an individual person at a cost of \$1,000.

*CE Instruments.* CE instruments use electric current to draw molecules through a separation medium, for example a liquid, direct a laser at the molecules being drawn through the liquid, and then use an optical device to detect the light emitted by fluorescent tags with varying colors that have been attached to the molecules being analyzed. We offer systems that incorporate advanced CE sequencing technology that we believe represent the leading industry standard for high-throughput CE sequencing. We offer the following CE genetic analysis instruments, along with several sequencing chemistries optimized for various customer requirements:

| <b>Instrument</b>                      | <b>Capacity</b> |
|--|-----------------|
| Applied Biosystems 3730xl DNA Analyzer | 96 capillaries  |
| Applied Biosystems 3730 DNA Analyzer   | 48 capillaries  |
| ABI PRISM® 3130xl Genetic Analyzer     | 16 capillaries  |
| ABI PRISM® 3130 Genetic Analyzer       | 4 capillaries   |
| ABI PRISM® 310 Genetic Analyzer        | 1 capillary     |

Technologically, these systems are distinguished among each other primarily based on their sequencing capacity and level of automation, with the 3730xl being the highest capacity instrument with the most automation. The sequencing capacity, or throughput, is determined primarily by the number of capillaries, each of which can be used to simultaneously analyze a separate DNA segment. The product line includes instruments suitable for use by a wide range of users, from individual researchers to research laboratories conducting high-volume research. The

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suitability of any particular instrument for any researcher or research laboratory will depend on the nature of the work being performed and the capital budget of the researcher or research laboratory. Although it does not incorporate our advanced sequencing technology, we continue to offer the one capillary model 310 Genetic Analyzer because it continues to be a cost-effective choice for small laboratories or individual researchers that do not require a high-throughput instrument or do not have a budget for a more expensive instrument. We provide servicing and customer support for all of these instruments, as well as some previously-marketed instruments that remain in use by some customers.

We offer several products for use with our genetic analysis instruments to enable particular applications. For example, we offer the SNPlex Genotyping System to perform genotyping studies. The system uses multiplexing, a scientific term that refers to multiple reactions in a single tube or well, to rapidly identify large numbers of target SNPs in a single biological sample. This system can be used with the Applied Biosystems 3730, 3730xl, and 3130xl DNA Analyzers to perform studies based on customers' own customized set of reference SNPs. The suitability of SNPlex for any particular researcher or research project, compared to our real-time PCR-based genotyping systems and products, depends on several factors, including the type of study being performed, scientific requirements, access to the needed instrumentation, and cost considerations.

*SOLiD System Next Generation Sequencing.* During our 2008 fiscal year, we commercially launched the SOLiD System, our next-generation sequencing system that arose from our fiscal 2007 acquisition of Agencourt Personal Genomics. We announced the formal launch of the system in October 2007, and then launched an upgraded version of the system in May 2008 that enables customers to more than double the throughput while reducing run times as compared to the original system. Also in May, we announced a collaboration with the Wellcome Sanger Institute to study cancer genomics using the SOLiD System.

The SOLiD System offers a substantial increase in throughput and reduction in relative cost as compared to CE genetic analysis. In March 2008 we announced that we had sequenced a human genome for under \$60,000 in reagent costs, setting a new standard for experimental value. Although the SOLiD System is not at this time the \$1,000 genome solution, we are continuing to seek ways to improve the system and bring it closer to this goal. We believe that our SOLiD System offers the highest throughput and accuracy of any next-generation sequencing system commercially available today. The capabilities of the SOLiD System are particularly suited for the study of complex diseases like cancer, which is characterized by a wide range of genetic variation and chromosomal abnormalities.

We believe that the SOLiD System will be complementary to our CE genetic analysis instruments because it will enable applications that could not be performed by CE instruments or for which CE instruments are not well suited because of their technological limitations. Also, the new SOLiD System has been designed for very high-throughput applications and the cost-efficiencies expected from its use may not be realized for lower-throughput applications. Thus, we think for the next several years users will be primarily genome centers, large academic labs, academic core labs, and commercial service labs. However, we do not expect the new technology to be used exclusively for new applications or only by these high-volume users, and thus believe that for some users of CE genetic analysis and for some existing CE applications the new system will be preferred and used instead of CE genetic analysis.

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### ***RNA Consumables and RNAi***

We offer a broad range of products for the study and analysis of RNA and its role in disease development and progression. This product line was substantially expanded with our fiscal 2006 acquisition of the Research Products Division of Ambion, Inc., and is now marketed under the Ambion brand name. The product line includes reagents associated with RNA interference, referred to as RNAi, and products for the analysis of microRNA, referred to as miRNA. These products are used to study the gene expression process and could lead to advances in human healthcare, possibly forming the basis of future therapeutic or diagnostic products. In April 2008, we announced the development of a set of analysis tools to help researchers profile expression levels of human, mouse, and rat miRNAs from trace amounts of sample. These new tools may be particularly useful in advancing the study of cancer, in which miRNAs are believed to play a critical regulatory role. Cancer researchers are often faced with the challenge of being able to obtain only tiny amounts of RNA from cancerous samples. The new tools, TaqMan<sup>®</sup> microRNA Arrays and Megaplex Pools, were released for sale in August 2008.

The Ambion product line also includes: sample preparation products, used for example to isolate and purify RNA before analysis; reagents used to convert an RNA sample into DNA, a process referred to as reverse transcription, which is often a necessary step for RNA analysis; and reagents for PCR amplification, or copying, which is often necessary so that researchers have enough sample to perform their desired analysis on small or limited samples, like tumor biopsies or blood stains. Many of the Ambion brand products can be used in combination with our other products as part of a workflow solution to solve cost, speed, or other difficulties encountered by some researchers in laboratory experimentation and analysis.

RNA interference, or RNAi, refers to the use of specialized reagents to limit or restrict the translation of the genetic code from RNA into proteins by degrading the messenger RNA molecule prior to its translation. Using products such as small interfering RNA, sometimes denoted as siRNA, scientists can reduce, or silence, the expression of a particular gene in mammalian cell systems, in some instances by 90% or more. Gene silencing induced by siRNA is widely used by researchers to analyze the effect that the silenced gene has on cellular function. Some researchers are also studying whether gene silencing could be used for therapeutic purposes.

MicroRNA, or miRNA, is a class of small RNA molecules discovered by scientists during the last few years which are thought to regulate the activity of more than half of all known genes. Researchers also believe that some individual miRNAs may regulate the activity of multiple genes. Several research groups have provided evidence that miRNAs may act as key regulators of processes such as cell proliferation and differentiation, apoptosis, or cell death, and fat metabolism. The Ambion RNA product line includes sample preparation products used by researchers to isolate microRNA molecules prior to analysis with our TaqMan<sup>®</sup> MicroRNA Assays.

### ***DNA Synthesis***

Oligonucleotides, sometimes referred to as oligos, are synthetic single-stranded pieces of DNA that are essential for PCR and DNA sequencing and some drug discovery applications. DNA synthesis is needed by companies performing high-throughput synthesis as a service as well as by individual laboratories that synthesize DNA for their own use. We sell reagents used for the DNA synthesis process and we provide custom synthesis services, whereby oligonucleotides are made to order and shipped to customers.

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### **Products for the Cell Biology Market**

We have developed, and expect to continue developing, products used for the study of cell and biological molecule function. These products are intended for use by researchers studying the complex biological reactions that take place within and between cells, which researchers refer to as biological pathways, and how these pathways relate to human disease. These studies are needed in a variety of fields, including in particular drug discovery and development. This product line includes Tropix<sup>®</sup> chemiluminescent reagent products used by researchers studying cell function. Chemiluminescence is the conversion of chemical energy stored within a molecule into light, and the detection of chemiluminescence is another technology used to study cellular function. This technology also has other applications, and we use it in some of our products for the molecular biology market and we license it to others for adaptation for various types of diagnostic tests and drug discovery assays. These chemiluminescent-based tests and assays can be used in combination with a variety of detection instruments.

### **Products for the Proteomics Market**

Differences in the types or amounts of specific proteins in biological systems are thought to be one of the primary differences between healthy and diseased systems or organs. A majority of drugs to treat human disease bind to and affect proteins. Customers in the proteomics research market need systems for the analysis of proteins and the peptides that make up proteins for the purpose of discovery of drug targets, protein therapeutics, and diagnostics. Through a joint venture with MDS Inc., we have developed products for the identification, characterization, and measurement of expression of proteins and peptides. Our joint venture and our products for the proteomics market are described in the following paragraphs.

#### ***Mass Spectrometry***

Mass spectrometry has become very useful for the analysis of large molecules of biological importance such as proteins. Analysis of proteins and other molecules by mass spectrometry involves the very accurate measurement of the mass, or size, of components in a sample, such as the measurement of the multiple different peptides that make up a protein of interest. The sensitive electronics of mass spectrometry instruments can measure fine differences in very small quantities of complex samples having multiple components. Mass spectrometry instruments incorporate the following key technological processes:

A sample preparation process called ionization to electrically charge the molecules for analysis. We sell instruments with ionization by either a laser based system called MALDI, which refers to matrix assisted laser desorption ionization, or a high voltage electric system called ESI, which refers to electrospray ionization.

Mass analysis and detection, which involves the separation and electronic measurement of the mass of molecules and the measurement of the relative amounts present. We have a variety of mass analysis technologies which separate and measure the mass of molecules in a sample. These include TOF, which refers to time of flight, which measures mass based on flight time in an electric field under vacuum; and quadrupole or quad, and linear ion trap, both of which measure mass using radio frequencies and electric charges though using related but different technologies.

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Mass spectrometry instruments are often referred to or named based on their sample preparation and mass analysis technologies. For example, a MALDI TOF instrument is an instrument that uses MALDI to charge molecules for analysis and TOF for mass analysis. Also, mass spectrometry instruments are often referred to or named based on whether they are connected to liquid chromatography separation devices, which are used for sample preparation before analysis using mass spectrometry. For example, an LC/MS system is a liquid chromatography device connected directly to a mass spectrometry instrument, and an LC/MS/MS system is a liquid chromatography device coupled with tandem mass spectrometry instruments. Tandem mass spectrometry enables a more detailed and accurate analysis of the components of the molecules being studied. The market for mass spectrometry is served by a wide range of instrument types, based on a variety of technologies for both ionization and mass analysis, which are combined together in different combinations in different instruments.

Currently, all of our mass spectrometry systems for the proteomics market are manufactured and sold through Applied Biosystems/MDS Analytical Technologies Instruments, formerly named Applied Biosystems/MDS SCIEX Instruments, a 50/50 joint venture between us and MDS Inc. of Canada. This joint venture supplies a broad family of mass spectrometry products for the proteomics market, and some of its instruments are also used for small molecule analysis, which is described below in this description of our business under the heading Products for the Small Molecule Analysis Market.

The Applied Biosystems/MDS Analytical Technologies Instruments joint venture was originally formed in 1986 and renewed in 2001 for a term to expire on October 31, 2011. The joint venture agreement includes provisions for earlier termination at the election of a partner for events such as those resulting from material breaches, a disagreement over a fundamental issue requiring consent of both partners, or a partner becoming subject to the control of another entity through acquisition or merger (including possibly the pending merger with Invitrogen). Under the agreement, notwithstanding the expiration of the term or early termination, the affairs of the partnership shall continue with respect to all products developed prior to expiration or termination, or for any products whose development can be completed within one year following expiration or termination. Such products will continue to be manufactured and sold (and the profits and losses divided equally by the partners) for the life of the products, and the partnership agreements governing purchase and distribution of the products shall be deemed to continue in full force and effect.

Originally, the joint venture covered only LC/MS systems, but during our 2005 fiscal year the parties amended the joint venture agreement to expand the joint venture to also include MALDI TOF systems, a product line that previously had been manufactured and marketed by us independent of the joint venture. Under the terms of the amended joint venture agreement, MDS is responsible for manufacturing these LC/MS and MALDI TOF systems, and we are the exclusive distributor of these systems, with responsibility for sales and marketing and service and support. The two companies conduct separate but coordinated research and development activities for these systems. In consideration for the amendment to the joint venture and our contribution of MALDI TOF assets, we received, among other things, \$8 million in cash and a \$30 million promissory note, which is payable in five annual installments beginning in October 2006.

Pursuant to agreed upon procedures, the parties to the joint venture conduct coordinated activities with respect to the development, manufacture, marketing, sale, service, and support of our mass spectrometry systems under the supervision of co-managers, who are senior executives of each partner. The coordinated activities include the sharing of internal technical and business



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results and the establishment of collaborations with third parties regarding the technology and instrumentation that the joint venture products will use. Under the profit sharing arrangement of the joint venture, each partner tracks its costs associated with the functions and activities performed on behalf of the venture. Such costs are reconciled on a regular basis and applied against revenues generated by the partnership, with resultant profits or losses being shared equally by the partners.

The following table summarizes the mass spectrometry instruments for the proteomics market offered by the Applied Biosystems/MDS Analytical Technologies Instruments joint venture:

| <b>Instrument Name</b>           | <b>Ionization</b> | <b>Mass Analyzer</b>                            |
|----------------------------------|-------------------|---|
| 4800 Plus MALDI TOF/TOF Analyzer | MALDI             | TOF/TOF Optics                                  |
| QSTAR® Elite LC/MS/MS System     | ESI or MALDI      | Hybrid quad/TOF (often referred to as a Qq-TOF) |
| 4000 Q TRAP® LC/MS/MS System     | ESI               | Hybrid quad/linear ion trap                     |
| 3200 Q TRAP® LC/MS/MS System     | ESI               | Hybrid quad/linear ion trap                     |

Technologically, these systems are distinguished primarily based on their: sensitivity, or ability to identify very small quantities of molecules within a sample; resolution, or ability to distinguish among several different types of molecules within a complex sample; mass accuracy, or ability to accurately quantify or determine the mass of the molecules being studied; throughput; and overall ease of use. These systems offer a range of these quantitative and qualitative performance characteristics in different combinations and at varying costs. The product line includes systems that are suitable for a wide range of proteomics applications and users, from individual researchers to large research laboratories. The suitability of any particular system for any researcher or research laboratory depends on the nature of the work being performed and the capital budget of the researcher or research laboratory. Several of these instruments incorporate proprietary advanced technologies that result in industry-leading performance characteristics for some applications.

In addition to the range of mass spectrometry instruments and software used to operate those instruments, we have developed and commercialized various reagent products used with mass spectrometry to identify and quantify amino acids, peptides, and proteins. These products label particular types of molecules with a chemical marker which can be detected in the mass spectrometry process. The product line includes ICAT®, iTRAQ, and mTRAQ reagents and Amino Acid quantification kits. These products have varying capabilities that make them suited to particular types of research or experimentation. The mTRAQ reagents and Amino Acid kits were added to the product line during our 2008 fiscal year, and we introduced a new version of the iTRAQ reagents during our 2008 fiscal year that doubled the experimentation capacity of these reagents.

**Biochromatography**

Biochromatography is an important step in both research applications and manufacturing of biopharmaceuticals, which refers to protein-based pharmaceutical products. Researchers studying complex protein samples through mass spectrometry must first prepare these samples and separate them into the components to be analyzed. A common and important technique for the separation, and in some cases purification, of biological molecules is generally referred to as biochromatography, a process by which molecules are separated according to one or more of their physical properties such as their size, shape, electric charge, or affinity to other molecules.

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Our biochromatography media products are used in liquid chromatography. Liquid chromatography is a process that separates molecules by passing them, in a liquid, across a stationary or solid medium such as chemically modified plastic beads specially designed for this process. Separation occurs because different molecules, which have different affinities to the beads, will migrate, or pass, across the beads at different rates.

Our biochromatography media products, such as POROS® beads, are used in the proteomics discovery process and in the development and manufacturing of biopharmaceuticals. We believe that our biochromatography products offer productivity advantages, enabled by high speed separation combined with high capacity and resolution, over competitive product offerings. This product line includes our POROS® MabCapture A Media, a bead which can substantially increase the speed and reduce the cost of the liquid chromatography process for some applications, including particularly the manufacturing of some antibody therapeutics.

### ***Protein Sequencing and Synthesis***

We manufacture and sell proprietary reagents and chemicals used to synthetically produce peptides and small proteins. Researchers use these peptides and small proteins in a variety of research and drug discovery applications. We also manufacture and sell proprietary reagents used for protein sequencing. Protein sequencing is performed to identify or characterize a given protein by chemically disassembling the protein and analyzing the amino acids that make up the protein.

We previously manufactured the 433A Peptide Synthesis system, and the Procise® Protein Sequencing system, but discontinued both of these systems during our 2008 fiscal year. We intend to sell our remaining inventory of the discontinued systems during our 2009 fiscal year, and provide customer support for existing systems for approximately 5 years.

### **Products for the Small Molecule Analysis Market**

We have a number of mass spectrometry products that analyze small molecules both quantitatively and qualitatively for life science research and other applications. The small molecules studied are typically smaller than peptides and include, for example:

some drugs;

drug metabolites, the compounds resulting from the body's acting upon a drug, and present in bodily fluids such as blood or urine;

other small biological molecules found naturally in the human body such as hormones, which affect physiological activity by sending signals to cells and organs, and cholesterol, which the body uses, for example, to build cells and produce hormones; and

various trace contaminants in foods, beverages, or the environment.

Small molecule analysis is particularly important for pharmaceutical development, but is also necessary for other applications such as some food, beverage, and environmental testing and human forensic and toxicology testing. In early stages of drug discovery, researchers need to identify drug metabolites, a process that requires instruments that have good resolution, which is

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the ability to distinguish among several different types of molecules within a complex sample, and mass accuracy, which is the ability to accurately quantify or determine the mass of the molecules being studied. In later stages of drug discovery, researchers need to study drug metabolism and pharmacokinetics, the measurement of the bodily absorption, distribution, metabolism, and excretion, or elimination, of drugs. Pharmacokinetic analysis requires instruments that have a high sensitivity, or the ability to accurately detect and quantitate very small quantities of molecules within a sample, because the amounts of the drugs and their metabolites are very low and the mixtures are very complex. Researchers can perform the required drug metabolism and pharmacokinetic analysis with LC/MS/MS systems that have been developed by Applied Biosystems/MDS Analytical Technologies Instruments.

The Applied Biosystems/MDS Analytical Technologies Instruments joint venture offers the following broad product line of mass spectrometry instruments for small molecule and pharmacokinetics researchers, including for the applications described above:

| <b>Instrument Name</b>                   | <b>Ionization</b> | <b>Mass Analyzer</b>                            |
|--|-------------------|---|
| API 5000 LC/MS/MS System                 | ESI               | Triple quad                                     |
| API 4000 LC/MS/MS System                 | ESI               | Triple quad                                     |
| API 3200 LC/MS/MS System                 | ESI               | Triple quad                                     |
| API 2000 LC/MS/MS System                 | ESI               | Triple quad                                     |
| QSTAR <sup>®</sup> Elite LC/MS/MS System | ESI or MALDI      | Hybrid quad/TOF (often referred to as a Qq-TOF) |
| 4000 Q TRAP <sup>®</sup> LC/MS/MS System | ESI               | Hybrid quad/linear ion trap                     |
| 3200 Q TRAP <sup>®</sup> LC/MS/MS System | ESI               | Hybrid quad/linear ion trap                     |
| FlashQuant Workstation                   | MALDI             | Triple quad                                     |

Technologically, these systems are distinguished primarily based on their sensitivity, resolution, mass accuracy, throughput, and overall ease of use. These systems offer a range of these quantitative and qualitative performance characteristics in different combinations and at varying costs. The product line includes systems that are suitable for a wide range of small molecule applications and users, from individual researchers to large research laboratories. The suitability of any particular system for any researcher or research laboratory depends on the nature of the work being performed and the capital budget of the researcher or research laboratory. The API product line offers quantitation with a range of sensitivity at varying costs, and has been widely accepted by pharmaceutical researchers. The API 5000 system is the most sensitive of the API systems and we believe it is the most sensitive triple quad mass spectrometry instrument currently available to this research market. In addition to the systems described above, the Applied Biosystems/MDS Analytical Technologies Instruments joint venture offers enhancements, including reagent kits and software, that enable particular applications on the systems or increase the performance of the systems for particular applications.

We introduced the FlashQuant Workstation in our 2007 fiscal year and began delivering systems to customers in March 2008. The Workstation, our newest system for this market, is a first-of-its-kind system that enables researchers to combine MALDI ionization with triple quad mass analysis. The Workstation was developed to help pharmaceutical companies increase the speed, and reduce the cost, of conducting small molecule drug and drug metabolite screening in early stage drug discovery research.

Information about the Applied Biosystems/MDS Analytical Technologies Instruments joint venture, general information about mass spectrometry instruments, and additional information about some of the instruments referred to in the table above, is set forth above in this

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description of our business under the heading Products for the Proteomics Market Mass Spectrometry.

### **Applied Markets Products**

We have established an Applied Markets division focused exclusively on developing and marketing products for use in some markets outside of life science research, which we refer to as applied markets. The current focus of our products for these markets, which are discussed below in further detail, is in the areas of: forensic testing and human identification; quality and safety testing, such as testing required for food and pharmaceutical manufacturing; and biosecurity, which refers to products needed in response to the threat of biological terrorism and other malicious, accidental, and natural biological dangers. We believe that there is an opportunity to leverage our experience and success in forensic testing and human identification into other applied markets. In addition, some applied markets applications require instrument platforms such as our TaqMan® chemistry-based real-time PCR systems, genetic analysis instruments, and mass spectrometry systems, and accordingly the marketing of these systems for use in applied markets is within the focus of the Applied Markets division.

#### ***Forensic Testing and Human Identification***

We develop systems that are used to identify individuals based on their DNA, commonly referred to as forensic analysis. Forensic analysis is often used, for example, in criminal investigations, to identify human remains, and for paternity testing. We offer an extensive product line addressing key needs for this application, and this product line has been widely accepted by investigators and laboratories performing forensic analysis.

Our forensic analysis systems are used in criminal cases where DNA extracted from biological evidence found at the crime scene is compared with DNA from suspects or profiles stored in databases of potential suspects. The use of DNA in some criminal investigations has been shown to help solve crimes, exonerate innocent individuals, and reduce the cost of the investigation. We believe that today there is general recognition by scientific, law enforcement, and judicial organizations and institutions worldwide of the validity of the use of DNA testing and DNA databases for these purposes. This is evidenced in particular by a growing number of governmental initiatives in the U.S. and abroad to finance the analysis of DNA from crime scenes, including the existing backlog of samples from past crimes, and build databases of potential suspects. Many jurisdictions in the U.S. and in Europe have passed legislation creating mandated DNA databasing of individuals that are arrested and/or convicted of crimes. The growing recognition of the validity of the use of DNA in criminal matters is also evidenced by the increasing use of DNA analysis to exonerate individuals previously convicted of crimes by testing archived evidence.

Our AmpF STR® kit product line, the core of our forensic analysis offerings, is used to produce a genetic profile of a sample based on specific DNA fragments known as short tandem repeats, or STRs. The kit used most extensively for STR analysis and offender databasing worldwide is the AmpF STR® Identifiler® PCR Amplification Kit. We also offer other kits designed to cover standards established by authorities in particular countries or regions, such as in the European Union. We also produce kits that analyze specific types of markers within samples, such as the AmpF STR® Yfiler® PCR Amplification Kit and the MiniFiler® PCR Amplification Kit, described below.

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The AmpF STR®Yfiler PCR Amplification Kit is a forensic identification kit that enables forensic scientists to detect low levels of male DNA in the presence of large amounts of female DNA, a situation routinely encountered in cases of sexual assault. Identifying, segregating, and analyzing male DNA in cases involving complex evidence containing mixtures of male and female DNA has been a significant challenge for forensic analysts. The sensitivity and specificity of this kit provides an additional tool for the analysis of this type of complex evidence.

The AmpF STR® MiniFiler PCR Amplification Kit is the world's first commercially available reagent kit for generating genetic profiles from aged, compromised, or damaged DNA samples. The kit was developed in response to the growing backlog of samples recovered from crime scene investigations and other instances of DNA collection in which the samples could not previously be identified because of poor sample quality. The kit is expected to enable an increase in the number of solved criminal cases, in addition to aiding in the investigation of missing person occurrences and mass disasters.

In addition to the STR product line, our forensic testing product line includes the Quantifiler® Human DNA Quantification Kit, a system designed to increase the efficiency and effectiveness of forensic analysis by providing a qualitative and quantitative assessment of DNA in a sample before forensic analysis. This assessment can be used by scientists and technicians performing forensic analysis to facilitate proper sample preparation for analysis, which can reduce the risk that analysis must be repeated. In April 2008, we began offering a new Quantifiler® Duo DNA Quantification Kit, which was developed to help improve results from sexual assault cases and other challenging samples. The kit can be used to quickly identify low amounts of male DNA present in samples containing high quantities of female DNA, which can be used to guide selection of the optimal DNA profiling chemistry kit.

In December 2007, we announced the availability of our new GeneMapper® ID-X software application. This software streamlines the routine review of data required for DNA analysis by automating the separation of those DNA samples that require further review by a forensic analyst from those that do not. The software was developed in response to a growing need by some law enforcement agencies to increase the efficiency of their forensic laboratories in response to the increasing numbers of DNA samples they receive for analysis.

In September 2007, we began a new service program for forensic DNA laboratories, which is intended to make it faster and easier for forensic DNA laboratories to comply with quality assurance standards and validation guidelines. Validation refers to the documented, scientific evaluation of the performance and analysis of DNA technologies that provides objective evidence to demonstrate the validity and reliability of the forensic DNA test results.

### ***Quality and Safety Testing***

Many manufacturers, including in particular those involved in the manufacture of food and pharmaceuticals, need to operate the manufacturing process in a controlled environment free of contaminants such as bacteria and fungus. These contaminants can spoil food or a drug being manufactured and can be harmful to human health. The U.S. Food and Drug Administration, or FDA, and the U.S. Department of Agriculture regulate the quality and safety standards for food manufacturers, and the FDA regulates the quality and safety standards for drug manufacturers. As a result, these manufacturers need to carefully and routinely monitor the manufacturing process, including their manufacturing environment, raw materials, and finished product, for the presence and identification of contaminants. We have developed DNA-based testing products for this

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purpose, primarily for pathogens, which are a class of contaminants that are potentially lethal. In March 2008, we announced that we were expanding our presence in the food safety and testing market and planned to provide pathogen detection kits directly to food companies. We offer several different pathogen detection kits, and kits for the detection of additional pathogens are under development. In February 2008, our salmonella test became the first of our pathogen tests to receive certification from the Association of Analytical Communities. This certification is required for use of a pathogen test at a food manufacturing site.

For pharmaceutical manufacturing quality assurance and quality control, we offer the MicroSeq<sup>®</sup> Microbial Identification System to accurately characterize and identify bacteria and fungus. This product is used on one of our genetic analysis instruments to test raw materials and finished product. For the food processing market, we offer TaqMan<sup>®</sup> Pathogen Detection tests that rapidly detect food pathogens, and other tests that detect and analyze genetically modified organisms in foods. These tests operate on our TaqMan<sup>®</sup> chemistry-based real-time PCR systems.

### *Biosecurity*

We believe there is a developing market for new products for surveillance and detection of biosecurity threats. This market is substantially dependent on government initiatives and funding, but heightened awareness of biological terrorism, combined with outbreaks of emerging infectious diseases, has caused the U.S. government to increase funding in this area in recent years.

We have developed, and expect to continue developing, products designed to detect and identify biosecurity threats. For example, we offer TaqMan<sup>®</sup> Influenza A/H5 Detection Kits. These kits are used for rapidly detecting multiple strains of avian influenza, an infectious disease that has become a substantial worldwide health concern in recent years. The tests are for use on our TaqMan<sup>®</sup> chemistry-based real-time PCR systems, and can detect an infected sample in hours rather than in the two or more days that is typically required for other more traditional testing methods. Generally, we sell these kits in major markets throughout the world other than the U.S., and sales are restricted to surveillance and research use only to comply with regulatory restrictions. In the U.S, regulatory restrictions generally prevent our sale of these kits except for a limited research use exception that is not expected to generate significant sales. Also, through a collaboration with Cepheid, we provide reagents used in assays for the detection of anthrax for use in U.S. Postal Service Biohazard Detection Systems.

### **LIMS Products and Services**

We develop, market, and distribute software products for laboratory information management systems, often referred to as LIMS. Our principal LIMS product is referred to as SQL\*LIMS<sup>®</sup>, and is offered along with several optional additional software products, some sourced from other manufacturers, which are designed to enhance its functionality for particular applications.

LIMS is used to integrate and automate research and development and manufacturing laboratories with the goal of increasing their efficiency and effectiveness. For some laboratories, large and small, LIMS has become an essential part of the laboratory design, enabling or facilitating, for example: sample tracking; sample prioritization; organization and review of laboratory work lists; integration of laboratory instrumentation with software applications; generation of reports; and ensuring data integrity.

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Use of LIMS for these functions is particularly important for laboratories involved in a high volume of repetitive and systematic testing procedures or other tasks, such as laboratories conducting testing for pharmaceuticals that are in advanced human clinical trials. This is also the case with pharmaceutical, food and beverage, and chemical manufacturing facilities, which need to regularly and systematically conduct testing for quality assurance and quality control.

This product line includes software solutions designed to address the specific needs of some of our customers. For example, our Forensics Solution software product for SQL\*LIMS is an optional enhancement that modifies the SQL\*LIMS to address the specific needs of the forensics laboratory environment. Also, in September 2007, we announced the SQL\*LIMS Plug and Play Pharma Package to help pharmaceutical companies maintain regulatory compliance and decrease the cost of managing their manufacturing operations.

We also offer consulting services to customers using SQL\*LIMS. These consulting services are designed for laboratories seeking greater automation and integration of lab processes. Our consultants principally assist with installation, configuration, and implementation of the SQL\*LIMS and any optional software enhancements purchased along with the SQL\*LIMS.

### **Service and Support**

We generally provide limited warranties on all equipment at the time of sale, for periods of time ranging up to two years from the date of sale depending on the product subject to warranty. However, warranties included with any sale can vary, and may be excluded altogether, depending on the particular circumstances of the sale. The sale of some equipment includes installation, basic user training, and/or application support. We also offer service contracts to our customers that are generally one to five years in duration after the original warranty period. We provide both repair services and routine maintenance services under these arrangements, and also offer repair and maintenance services on a time and material basis to customers that do not have service contracts. Service in the U.S. and major markets outside of the U.S. is provided by our service staff. In some foreign countries, service is sometimes provided through distributorship arrangements.

### **Marketing and Distribution**

#### ***General***

The markets for our products and services span the spectrum of the life sciences industry and research community, including: basic human disease research and genetic analysis performed by universities, government agencies, and other non-profit organizations; pharmaceutical drug discovery, development, and manufacturing; and agriculture research. Our products also serve the needs of some markets outside of life science research, which we refer to as applied markets, such as the fields of: human identity testing (forensic and paternity testing); quality and safety testing, such as testing required for food and pharmaceutical manufacturing; and biosecurity, which refers to products needed in response to the threat of biological terrorism and other malicious, accidental, and natural biological dangers.

The various markets served by our products and services have unique and often-changing requirements and expectations. Our customers are continually searching for processes and systems that: can perform experiments and tests faster, more efficiently, and at a lower cost; and that can be used to perform new tasks in response to scientific, regulatory, and other developments. We seek to address these customer needs by focusing on the development and improvement of automated

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and high-throughput systems, and the development of new applications for these systems. Also, we seek to expand the markets served by our products and services, and address the unmet needs of new markets, by developing new or improved systems and new applications for existing systems.

The size and growth of our markets are influenced by a number of factors, including but not limited to:

technological innovation in methods for analyzing biological data;

government funding for basic and disease-related research, such as in heart disease, AIDS, and cancer;

research and development spending by biotechnology and pharmaceutical companies;

awareness of biological contamination in food and the environment;

governmental response to the threat of biological terrorism and other malicious, accidental, and natural biological dangers, including efforts to develop surveillance and detection capabilities; and

application of biotechnology to basic agricultural processes.

In the U.S., we market our products and services directly through our own sales and distribution organizations. In major markets outside of the U.S., we also generally market our products and services directly through our own sales and distribution organizations, although some products and services are marketed through various representative and distributorship arrangements that we have established. We own or lease sales and service offices in the U.S. and in foreign countries through our foreign sales subsidiaries and distribution operations. None of our products are distributed through retail outlets.

### ***Applied Biosystems E-Business***

We have established an electronic commerce, or e-commerce, web site located on the Internet at [www.appliedbiosystems.com](http://www.appliedbiosystems.com). We use our website to market our full range of products and services, and most of our products are also available for purchase directly online. To date, customers typically, but not exclusively, have been using the Applied Biosystems website to purchase their consumable products such as TaqMan® Gene Expression and SNP Genotyping Assays, TaqMan® Arrays, and siRNAs. Website users can access search tools and graphical viewers intended to help them plan experiments and purchase our corresponding products. We also offer businesses, academic and research institutions, and other clients the capability to integrate their own electronic purchasing systems with our e-commerce website, which we believe simplifies the ordering process for researchers.

### **Raw Materials**

There are no specialized raw materials that are particularly essential to the operation of our business. Our manufacturing operations require a wide variety of raw materials, electronic and mechanical components, chemical and biochemical materials, and other supplies, some of which are occasionally found to be in short supply. We may not be able to obtain or maintain access to these supplies on acceptable terms. Any interruption in the availability of these materials could



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harm our operations. We have multiple commercial sources for most components and supplies, but we are dependent on single sources for a limited number of these items, in which case we normally secure long-term supply contracts. In some cases, if a supplier stops offering a product, our business could be temporarily interrupted.

### **Patents, Licenses, and Franchises**

Our products are based on complex, rapidly developing technologies. Some of these technologies are covered by patents we own, and others are owned by third parties and are used by us under license. We have pursued a policy of seeking patent protection in the U.S. and other countries for developments, improvements, and inventions originating within our organization that are incorporated into our products or that fall within our fields of interest. Our business depends on our ability to continue developing new technologies which can be patented, or licensing new technologies from others that own patents in desired technologies.

We are currently, and could in the future be, subject to lawsuits, arbitrations, investigations, and other legal actions with private parties and governmental entities, particularly involving claims for infringement of patents and other intellectual property rights. From time to time, we have asserted that various competitors and others are infringing our patents; and similarly, from time to time, others have asserted that we were or are infringing patents owned by them. These claims are sometimes settled by mutual agreement on a satisfactory basis and result in the granting of licenses by or to us or the cessation of the alleged infringing activities. However, we cannot make any assurances as to the outcome of any pending or future claims. More information about the risk factors associated with our reliance on intellectual property is set forth below in Item 1A of this report under the heading **Risk Factors**. Also, more information about our legal proceedings that involve our intellectual property is set forth below in Item 3 of this report under the heading **Legal Proceedings**.

### ***PCR and Real-Time PCR Reagents, Methods, and Instruments***

PCR, which refers to polymerase chain reaction, is a process in which a short strand of DNA is copied multiple times, or amplified, so that it can be more readily detected and analyzed. We own some patents to PCR-related technology and we derive other rights to PCR technology under a series of agreements with Hoffmann-La Roche Inc. and its affiliates, which own some of the patents covering PCR-related technology, and an agreement with Epoch BioSciences, which owns intellectual property relating to chemicals used in the PCR process.

The broadest PCR-related patents covered the basic PCR method, which we refer to as the foundational PCR patents. The last of the foundational patents expired in Spain in March 2007, but we have many other patents in our portfolio of PCR-related patents. These other patents cover for example: improvements to the basic PCR method, such as real-time PCR, which is used to detect and for some applications quantify a sample during the PCR amplification process; polymerase enzymes useful in PCR and real-time PCR; methods related to PCR; and instrumentation related to PCR and real-time PCR. Our remaining patents in this portfolio will expire at varying times between now and 2016 in the U.S. and various other jurisdictions throughout the world.

We have established licensing programs for industry access to some of our owned and in-licensed PCR intellectual property, and have granted some individual licenses for some of the intellectual property not included in those programs. We receive royalties from other companies

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for their sales of products incorporating the intellectual property that we license to these other companies.

### ***DNA Sequencing and Capillary Electrophoresis Reagents, Methods, and Instruments***

Capillary electrophoresis, or CE, is a process used to analyze DNA molecules for DNA sequencing and other applications. We own several patents covering DNA sequencing and fragment analysis with CE technology, and we derive other rights to components of DNA sequencing and CE technologies under a series of agreements and collaborations with other companies and institutions. These companies and institutions include, for example, the California Institute of Technology, Perkin-Elmer, Inc., GE Healthcare Bio-Sciences Corp., Iowa State Research Foundation, Beckman Coulter, Inc., Promega Corporation, and Hitachi High-Technologies Corp. The owned and licensed patents cover, for example, methods and reagents for sequencing, modification, separation, and detection, along with instruments for separation, detection, and analysis. Within this portfolio of patents, the patents that we believe are material to our business will expire at varying times between 2009 and 2023 in the U.S. and various other jurisdictions throughout the world.

### ***Mass Spectrometry Instrument Systems, Reagents, and Methods***

We and our joint venture partner, MDS Inc. of Canada, own and operate a joint venture in the field of mass spectrometry known as Applied Biosystems/MDS Analytical Technologies Instruments. We and MDS own several patents to mass spectrometry instrument design and operation, including software technology, that we and MDS Inc. make available to Applied Biosystems/MDS Analytical Technologies Instruments. Among these patents is a fundamental mass spectrometry patent, U.S. Patent No. 4,963,736, which will expire in 2009 in the U.S., and corresponding foreign patents that will also expire in 2009. These patents pertain to improved ion transmission for improving sensitivity in the use of mass spectrometry technology for later stage drug development and discovery and metabolite identification processes. The joint venture derives additional rights to mass spectrometry technology, which we believe are material to the joint venture business, under license agreements with other companies and institutions. These rights include, for example, exclusive rights to orthogonal time-of-flight mass spectrometry technology from the University of Manitoba.

Independent of the joint venture, we have a portfolio of patents and patent applications pertaining to our mass spectrometry consumable reagents business and our mass spectrometry workflow solutions, which refer to methods and applications used by researchers to solve problems encountered in laboratory experimentation and analysis.

### **Backlog**

Our total recorded backlog at June 30, 2008, was \$352.5 million. This number reflects the backlog attributed to our Applied Biosystems group segment at that date, including \$0.3 million of orders from our former Celera group business segment, but excluding \$2.9 million in backlog that we attributed to the Celera group business at that date. Our total recorded backlog at June 30, 2007, was \$288.3 million, including \$0.7 million of orders from the Celera group business, but excluding \$0.2 million we attributed to the Celera group business at that date. Recorded backlog may not result in sales because of cancellation or other factors. It is anticipated that most of the orders included in backlog at June 30, 2008, will be delivered before the close of our 2009 fiscal year.

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### **Competition**

While the absence of reliable statistics makes it difficult to determine our relative market position in its industry segments, we believe we are one of the principal suppliers in our fields, marketing a broad line of life science systems, consumables, software, and services. However, the markets for these products and services are highly competitive and are characterized by the application of advanced technology. Competition is intensified by the ever-changing nature of the technologies used in these markets. New technologies in life sciences could make our products and services obsolete unless we continue to develop new and improved products and services and pursue new market opportunities. Given the breadth of our product and service offerings, our competition comes from a wide array of competitors with a high degree of technical proficiency, ranging from specialized companies that have strengths in narrow segments of the life science markets to well known manufacturers offering a broad array of biotechnology products and services. We compete principally in terms of the technology incorporated into our products and services, the breadth and quality of our product and service offerings, and our service and distribution capabilities.

### **Research and Development**

We are actively engaged in basic and applied research and development programs designed to develop new products and to improve existing products. Our research and development expenses during our 2008, 2007, and 2006 fiscal years were as follows:

2008 fiscal year: \$196.1 million for the Applied Biosystems group, \$40.9 million for the Celera group, and \$235.3 million for our company on a consolidated basis after the effects of (\$1.7) million related to intercompany eliminations;

2007 fiscal year: \$203.9 million for the Applied Biosystems group, \$51.7 million for the Celera group, and \$254.0 million for our company on a consolidated basis after the effects of (\$1.6) million related to intercompany eliminations; and

2006 fiscal year: \$180.3 million for the Applied Biosystems group, \$94.3 million for the Celera group, and \$271.4 million for our company on a consolidated basis after the effects of (\$3.2) million related to intercompany eliminations.

Our new products generally originate from four sources: internal research and development programs; external collaborative efforts with technology companies and individuals in academic institutions; devices or techniques that are generated in customers' laboratories; and business and technology acquisitions.

### **Environmental Matters**

We are subject to federal, state, and local laws and regulations regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, in those jurisdictions where we operate or maintain facilities. We do not believe that any liability arising under, or compliance with, environmental laws or regulations will have a material effect on our business, and no material capital expenditures are expected for environmental control.

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### **Employees**

As of the end of our 2008 fiscal year, we had approximately 5,160 employees, including approximately 4,930 employees attributed to the Applied Biosystems business and approximately 230 employees in our corporate staff, who provide accounting, tax, treasury, legal, information technology, human resources, and other services in support of the Applied Biosystems business operations. These numbers include part time employees based on their part time commitment, and also include temporary workers on our payroll. None of our U.S. employees are subject to collective bargaining agreements. We generally consider our relations with our employees to be good.

Also, we note that as of the end of our 2008 fiscal year we employed approximately 580 additional individuals who transferred to Celera Corporation in connection with the separation of the Celera group business to Celera Corp. We had attributed most of these individuals to the Celera group business, including approximately 360 that worked in the Berkeley HeartLab business that was acquired in October 2007, but 9 of them had been part of our corporate staff. Upon completion of the separation on July 1, 2008, these individuals became employees of Celera Corp. More information on the Celera group separation is set forth above in Item 1 of this report under the heading Celera Separation.

### **Financial Information About Industry Segments**

A summary of net revenues from external customers and operating income (loss) attributable to each of our industry segments for our fiscal years ended June 30, 2008, 2007, and 2006 is incorporated herein by reference to Note 17 to our consolidated financial statements on pages 81 through 92 of our 2008 Annual Report. Total assets as of June 30, 2008, 2007, and 2006 were as follows:

June 30, 2008: \$2,398.6 million for the Applied Biosystems group, \$663.3 million for the Celera group, and \$3,061.4 million for our company on a consolidated basis after the effects of (\$0.5) million related to intercompany eliminations;

June 30, 2007: \$2,386.6 million for the Applied Biosystems group, \$768.7 million for the Celera group, and \$3,152.5 million for our company on a consolidated basis after the effects of (\$2.8) million related to intercompany eliminations; and

June 30, 2006: \$2,245.8 million for the Applied Biosystems group, \$773.7 million for the Celera group, and \$3,013.0 million for our company on a consolidated basis after the effects of (\$6.5) million related to intercompany eliminations.

### **Financial Information About Geographic Areas**

A summary of net revenues from external customers and long-lived assets attributed to each of our geographic areas for our 2008, 2007, and 2006 fiscal years is incorporated herein by reference to Note 17 to our consolidated financial statements on pages 81 through 92 of our 2008 Annual Report.

Our consolidated net revenues from external customers in countries other than the U.S. for our 2008, 2007, and 2006 fiscal years were as follows:

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2008: \$1,337.5 million, or 56.6% of our consolidated net revenues;

2007: \$1,204.8 million, or 56.5% of our consolidated net revenues; and

2006: \$1,060.7 million, or 54.4% of our consolidated net revenues.

Our manufacturing facilities outside the continental U.S. are located in the United Kingdom, Japan, and Singapore.

**Executive Officers of the Registrant**

Information concerning our executive officers is incorporated by reference to the description in Item 10 of this report under the heading Directors, Executive Officers and Corporate Governance Identification and Business Experience of Executive Officers on page 51 of this report.

**Item 1A. Risk Factors**

Some statements contained in, or incorporated by reference in, this report are forward-looking and are subject to a variety of risks and uncertainties. Similarly, the press releases we issue and other public statements we make from time to time may contain language that is forward-looking. These forward-looking statements may be identified by the use of forward-looking words or phrases such as forecast, believe, expect, intend, anticipate, should, plan, estimate, and potential, among others. The forward-looking statements contained in this report regarding the pending merger with Invitrogen corporation, are based on our current expectations, and those made at other times will be based on our expectations when the statements are made. We cannot guarantee that any forward-looking statements will be realized.

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements. To comply with the terms of the safe harbor, we note that a variety of factors could cause actual results and experience to differ materially from anticipated results or other expectations expressed in forward-looking statements. We also note that achievement of anticipated results or expectations in forward-looking statements is subject to the possibility that assumptions underlying forward-looking statements will prove to be inaccurate. Investors should bear this in mind as they consider forward-looking statements.

The risks and uncertainties that may affect the operations, performance, development, and results of our business include, but are not limited to, those described below. We note that our business could be affected by other factors that we have not disclosed because we think they are immaterial. Also, there may be additional risks and uncertainties that could affect our business but which are not currently known to us.

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**Failure to complete our pending merger with Invitrogen will subject us to financial risks and could cause the price of Applied Biosystems stock to decline.**

On June 11, 2008, we entered into a merger agreement with Invitrogen Corporation and Atom Acquisition, LLC, a direct wholly-owned subsidiary of Invitrogen. The proposed merger is subject to review by regulatory agencies in the EU and some other foreign jurisdictions, and we cannot provide assurances as to whether we will obtain the necessary clearances or approvals from these agencies or whether those clearances or approvals will impose any conditions on the company resulting from the merger. Also, we cannot assure our stockholders that the merger agreement will be approved and adopted by our stockholders or that the other conditions to the completion of the merger set forth in the merger agreement will be satisfied. We are subject to a number of other risks associated with the pending merger, including the following:

the current market price of Applied Biosystems stock may reflect a market assumption that the merger will occur, and a failure to complete the merger could result in a decline in the market price of Applied Biosystems stock;

the announcement of the merger and our planning for integration of our business with Invitrogen could: disrupt our business plans and operations; adversely affect our ability to retain key employees; and divert the attention of our management from opportunities that could be beneficial to our business;

the announcement of the merger could adversely affect our relationships with customers, suppliers and other parties;

the occurrence of some events, changes, or other circumstances described in the merger agreement could cause a termination of the merger agreement;

under the merger agreement, we could be required to pay Invitrogen a termination fee of \$150 million if the merger agreement is terminated in some circumstance involving an alternative transaction proposal by another company or a change in our board's recommendation of the Invitrogen merger to our stockholders in a manner that is adverse to Invitrogen;

the benefits we expect our stockholders to realize from the merger may not be realized, including as a result of the difficulties or delays in Invitrogen's ability to successfully integrate its businesses with our business following the merger;

we expect to incur significant legal, accounting, financial advisory, and other costs, fees, expenses and charges related to the merger; and

The Invitrogen merger agreement contains restrictions on activities that are not in the ordinary course of our business, subject to limited exceptions specified in the merger agreement, and these restrictions could prevent us from pursuing important business opportunities, such as business or technology acquisitions, while the merger is pending.

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**Because the market price of Invitrogen's common stock will fluctuate prior to completion of the Invitrogen merger, we cannot assure our stockholders as to the market value of the shares of Invitrogen common stock that they will receive upon completion of the merger.**

The market price of Invitrogen common stock at the time of completion of the merger may vary significantly from the price when we signed the merger agreement, the price when the per share merger consideration was determined, or the price when we and Invitrogen conduct our special stockholder meetings to seek approval of the merger. Pursuant to the merger agreement, if the arithmetic average of the volume-weighted average price of Invitrogen's common stock on each trading day during the 20 consecutive trading days immediately preceding the third business day prior to the effective time of the merger, or the 20-day VWAP, is less than \$46.00 per share, then holders of Applied Biosystems stock who receive all or a portion of their consideration in shares of Invitrogen stock will also receive an additional cash amount of up to \$2.31 per share of Invitrogen common stock which they receive in the merger. If, however, the 20-day VWAP is less than \$43.69 per share, there will not be any cash paid in addition to the amount described above. Because the date when the merger is completed may be later than the date of the special meetings, our stockholders may not know the exact value of the Invitrogen common stock that will be issued in the merger at the time they vote on the merger proposal. As a result, if the market price of Invitrogen common stock at the completion of the merger is less than \$43.69, the value of the per share merger consideration received by our stockholders who receive a portion of the merger consideration in Invitrogen common stock will be lower than \$38.00, the value of the per share merger consideration for stockholders, if any, who receive only cash.

**Rapidly changing technology in life sciences could make our product line obsolete unless we continue to develop and manufacture new and improved products and services, and pursue new market opportunities.**

A significant portion of the net revenues for us each year is derived from products and services that did not exist in the prior year. We sell our products in several industries that are characterized by rapid and significant technological changes, frequent new product and service introductions and enhancements, and evolving industry standards. Our future success depends on our ability to continually improve our current products and services, develop and introduce, on a timely and cost-effective basis, new products and services that address the evolving needs of its customers, and pursue new market opportunities that develop as a result of technological and scientific advances in life sciences. These new market opportunities may be outside the scope of our proven expertise or in areas which have unproven market demand, and the utility and value of new products and services developed by us may not be accepted in the markets served by the new products. This includes, for example, new products under development for the clinical diagnostics market, which are described in the immediately following paragraph. The inability to gain market acceptance of new products and services could harm our future operating results. Our future success also depends on our ability to manufacture these improved and new products to meet customer demand in a timely and cost-effective manner, including our ability to resolve in a timely manner manufacturing issues that may arise from time to time as we commence production of these complex products. Unanticipated difficulties or delays in replacing existing products and services with new products and services or in manufacturing improved or new products in sufficient quantities to meet customer demand could diminish future demand for our products and services and our future operating results.

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**We may not successfully develop instruments for use in the clinical diagnostics market, and even if we do develop these products, they may not receive needed regulatory clearances or approvals and we may not be able to manufacture these products in accordance with regulatory requirements.**

We intend to commit significant resources to the development of instruments for use in the clinical diagnostics market. Although we have experience in developing and commercializing instrumentation for the life science research market, we have only limited prior experience with products of any type for use in the regulated clinical diagnostics market. This is an emerging business area for us, and we may not have or be able to obtain the necessary expertise to successfully develop instruments for use in this market. In addition, in the U.S. and other countries, instruments cannot be marketed for clinical diagnostics use until they first receive regulatory clearance or approval. The regulatory review and clearance or approval process can be time consuming and require substantial expense and may not be successful. Even if we obtain regulatory clearance or approval for an instrument for use in the clinical diagnostics market, the manufacture, sale, and distribution of that product may be subject to ongoing regulatory requirements. The inability to comply with these requirements could cause us to suspend the manufacture or sale of these products and delay or prevent us from generating revenues from the sale of these products.

**We rely on other companies for the manufacture of some of our products and also for the supply of some components of the products we manufacture on our own.**

Although we have contracts with most of these manufacturers and suppliers, their operations could be disrupted. These disruptions could be caused by conditions unrelated to our business or operations, including the bankruptcy of the manufacturer or supplier. Although we have our own manufacturing facilities, and generally believe we might be able to manufacture some of the products and components currently sourced from other companies, we also believe that it could take considerable time and resources for us to establish the capability to do so. Accordingly, if these other manufacturers or suppliers are unable or fail to fulfill their obligations to us, we might not be able to satisfy customer demand in a timely manner, and our business could be harmed.

**A significant portion of our sales depends on customers' capital spending policies that may be subject to significant and unexpected decreases.**

A significant portion of our instrument product sales are capital purchases by our customers. Our customers include pharmaceutical, environmental, research, biotechnology, and chemical companies, and the capital spending policies of these companies can have a significant effect on the demand for our products. These policies are based on a wide variety of factors, including the resources available to make purchases, the spending priorities among various types of research equipment, and policies regarding capital expenditures during recessionary periods. Any decrease in capital spending or change in spending policies of these companies could significantly reduce the demand for our products.



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### **A substantial portion of our sales is to customers at universities or research laboratories whose funding is dependent on both the amount and timing of funding from government sources.**

As a result, the timing and amount of revenues from these sources may vary significantly due to factors that can be difficult to forecast. Research funding for life science research has increased more slowly during the past several years compared to previous years and has declined in some countries, and some grants have been frozen for extended periods or otherwise become unavailable to various institutions, sometimes without advance notice. Budgetary pressures may result in reduced allocations to government agencies that fund research and development activities. If government funding necessary to purchase our products were to become unavailable to researchers for any extended period of time, or if overall research funding were to decrease, our business could be harmed.

### **We may become involved in legal proceedings to enforce our intellectual property rights.**

The intellectual property rights of biotechnology companies, including us, involve complex factual, scientific, and legal questions. Even though we may believe that we have a valid patent on a particular technology, other companies have from time to time taken, and may in the future take, actions that we believe violate our patent rights. Although we have licensing programs to provide industry access to some of our patent rights, other companies have in the past refused to participate in these licensing programs and companies may refuse to participate in them in the future, resulting in a loss of potential licensing revenue. Legal actions to enforce these patent rights can be expensive and may involve the diversion of significant management time. Our enforcement actions may not be successful, and furthermore they could give rise to legal claims against us and could result in the invalidation of some of our intellectual property rights or legal determination that they are not enforceable. Also, other companies may seek to invalidate our intellectual property rights through other proceedings, such as by challenging the validity and scope of a patent with the United States Patent and Trademark Office, or USPTO, or foreign patent offices. For example, U.S. Patent No. 6,814,934, which relates to instruments for real-time PCR detection, is the subject of a reexamination proceeding in the USPTO and EP 872562, the European counterpart of the 934 patent, is the subject of an opposition proceeding in the European Patent Office. These proceedings, which have resulted from requests made by other companies to these patent authorities, could result in amendments to or rejection of the patents.

### **We are currently, and could in the future be, subject to lawsuits, arbitrations, investigations, and other legal actions with private parties and governmental entities, particularly involving claims for infringement of patents and other intellectual property rights, and we may need to obtain licenses to intellectual property from others.**

We believe that we have meritorious defenses against the claims currently asserted against us and intend to defend them vigorously. However, the outcome of legal actions is inherently uncertain, and we cannot be sure that we will prevail in any of these actions. An adverse determination in some of our current legal actions, particularly the cases described below, could harm our business and financial condition.

Our products are based on complex, rapidly developing technologies. These products could be developed without knowledge of previously filed patent applications that mature into

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patents that cover some aspect of these technologies. In addition, because patent litigation is complex and the outcome inherently uncertain, our belief that our products do not infringe valid and enforceable patents owned by others could be successfully challenged. We have from time to time been notified that we may be infringing patents and other intellectual property rights of others. Also, in the course of our business, we may from time to time have access to confidential or proprietary information of others, and they could bring a claim against us asserting that we had misappropriated their technologies, which though not patented are protected as trade secrets, and had improperly incorporated those technologies into our products.

Due to these factors, there remains a constant risk of intellectual property litigation and other legal actions affecting us, which could include antitrust claims. We have been made a party to litigation and have been subject to other legal actions regarding intellectual property matters, which have included claims of violations of antitrust laws. These actions currently include the legal proceedings described in the following paragraph, some of which, if determined adversely, could harm our business and financial condition. To avoid or settle legal claims, it may be necessary or desirable in the future to obtain licenses relating to one or more products or relating to current or future technologies, and we may not be able to obtain these licenses or other rights on commercially reasonable terms, or at all. In some situations settlement of claims may require an agreement to cease allegedly infringing activities.

We are involved in several legal actions that could affect our intellectual property rights and our products and services, including the following:

Enzo Biochem, Inc., Enzo Life Sciences, Inc., and Yale University have filed a lawsuit against us alleging that we are infringing six patents due to the sale of sequencing reagent kits, TaqMan<sup>®</sup> genotyping and gene expression assays, and the gene expression microarrays used with our Expression Array System.

Michigan Diagnostics LLC has filed claims against us seeking a declaratory judgment of non-infringement, invalidity, and unenforceability of approximately 60 patents related to chemiluminescent products and methods, and asserting antitrust claims based on our alleged misconduct in our alleged enforcement of those patents.

Molecular Diagnostics Laboratories has filed a class action complaint against us, Hoffmann-La Roche Inc., and Roche Molecular Systems, Inc. alleging anticompetitive conduct in connection with the sale of Taq DNA polymerase. The anticompetitive conduct is alleged to arise from the prosecution and enforcement of U.S. Patent No 4,889,818. This patent is assigned to Roche Molecular Systems, with whom we have a commercial relationship covering, among other things, this patent and the sale of Taq DNA polymerase.

In response to claims made by us against Solexa, Inc., Illumina, Inc., and a former chief patent counsel to our company, Solexa has filed counterclaims against us alleging that we infringe U.S. Patent Nos. 5,750,341, 5,969,119, 6,306,597 based on our making, using, selling, and offering for sale DNA sequencing products.

In response to a claim that we, MDS, Inc., and our Applied Biosystems/MDS Analytical Technologies Instruments joint venture with MDS filed against Thermo Electron Corporation, Thermo Electron has filed a counterclaim seeking a declaratory judgment that our U.S. Patent No. 4,963,736 is invalid. After the filing of this action

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against Thermo Electron, its subsidiary Thermo Finnigan LLC filed a lawsuit against us alleging that we are infringing one of its patents as a result of, for example, our commercialization of the ABI PRISM® 3700 Genetic Analyzer. Thermo Finnigan subsequently filed a second lawsuit against us, MDS, and the Applied Biosystems/MDS Analytical Technologies Instruments joint venture alleging that we and the other defendants have infringed one of Thermo Finnigan's patents as a result of, for example, our commercialization of the API 5000 LC/MS/MS system.

Fluidigm Corporation and Corbett Life Science, Corbett Robotics Inc., and Corbett Research Pty Ltd. have filed complaints against us seeking declaratory judgments of non-infringement and invalidity of our U.S. Patent No. 6,814,934, which relates to instruments for real-time PCR detection. The complaint filed by the Corbett parties also seeks a declaratory judgment that this patent is unenforceable.

These cases are described in further detail below in Item 3 of this report under the heading Legal Proceedings Commercial Litigation. The cost of litigation and the amount of management time associated with these cases is expected to be significant. These matters might not be resolved favorably. If they are not resolved favorably, we could be enjoined from selling the products or services in question or other products or services as a result, and monetary or other damages could be assessed against us. These outcomes could harm our business or financial condition.

### **Some of the intellectual property that is important to our business is owned by other companies or institutions and licensed to us, and legal actions against them could harm our business.**

Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent these other companies or institutions from continuing to license intellectual property that we may need for our business. Furthermore, an adverse outcome could result in infringement or other legal actions being brought directly against us. For example, on November 8, 2006, a patent interference proceeding was declared by the United States Patent and Trademark Office between Enzo Diagnostics, Inc. and the California Institute of Technology, or Caltech, concerning a patent application owned by Enzo and U.S. Patent No. 5,821,058, owned by Caltech. The '058 patent is exclusively licensed to us and claims methods for DNA sequencing. The Patent Office has declared the interference in order to resolve competing claims to inventorship of the subject matter of the interference. Although we are not a party to this proceeding, as exclusive licensee we are involved in the prosecution of the interference, in cooperation with Caltech, and we are funding a substantial portion of the cost of the prosecution. If Enzo prevails in the interference, the Patent Office could revoke the claims of the '058 patent from Caltech and award substantially similar claims to Enzo, which Enzo might then assert against our DNA sequencing products and possibly other products.

### **Since our business is dependent on foreign sales, fluctuating currencies will make revenues and operating results more volatile.**

Approximately 57% of our net revenues for our 2008 fiscal year were derived from sales to customers outside of the U.S. The majority of these sales were based on the relevant customer's local currency. A significant portion of our related costs are based on the U.S. dollar. As a result, our reported and anticipated operating results and cash flows are subject to fluctuations due to material changes in foreign currency exchange rates that are beyond our control.

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**Our future growth depends in part on our ability to acquire complementary technologies through acquisitions, investments, or other strategic relationships or alliances, which may absorb significant resources, may be unsuccessful, and could dilute holders of Applied Biosystems stock.**

Acquisitions, investments and other strategic relationships and alliances, if pursued, may involve significant cash expenditures, debt incurrence, and expenses that could have a material effect on our financial condition and operating results. If we pursue these types of transactions, it may be difficult for us to complete these transactions quickly and to integrate these acquired operations efficiently into our current business operations. Potential technological advances resulting from the integration of technologies may not be achieved as successfully or rapidly as anticipated, if at all. Any acquisitions, investments or other strategic relationships and alliances by us may ultimately harm our business and financial condition. In addition, future acquisitions may not be as successful as we originally anticipated and may result in impairment charges. We have incurred these charges in recent years in relation to acquisitions. For example, we have incurred charges for impairment of goodwill, intangibles and other assets and other charges of \$14.9 million related to our acquisition of Boston Probes, Inc. In addition, acquisitions and other transactions may involve the issuance of a substantial amount of Applied Biosystems stock without the approval of our stockholders. Any issuances of this nature could be dilutive to our stockholders.

**Our business, particularly the development and marketing of information-based products and services, depends on the continuous, effective, reliable, and secure operation of our computer hardware, software, and Internet applications and related tools and functions.**

Our business requires manipulating and analyzing large amounts of data, and communicating the results of the analysis to our internal research personnel and to our customers via the Internet. Also, we rely on a global enterprise software system to operate and manage our business. Our business therefore depends on the continuous, effective, reliable, and secure operation of our computer hardware, software, networks, Internet servers, and related infrastructure. To the extent that our hardware or software malfunctions or access to our data by internal research personnel or customers through the Internet is interrupted, our business could suffer.

Our computer and communications hardware is protected through physical and software safeguards. However, it is still vulnerable to fire, storm, flood, power loss, earthquakes, telecommunications failures, physical or software break-ins, software viruses, and similar events. In addition, our online products and services are complex and sophisticated, and as such, could contain data, design, or software errors that could be difficult to detect and correct. Software defects could be found in current or future products. If we fail to maintain and further develop the necessary computer capacity and data to support our computational needs and our customers' access to information-based product and service offerings, we could experience a loss of or delay in revenues or market acceptance. In addition, any sustained disruption in Internet access provided by other companies could harm our business.

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### **Our operations involve the use, manufacture, sale, and distribution of hazardous materials, and the mishandling of these hazardous materials could result in substantial liabilities and harm to our business.**

Our research and development and manufacturing activities involve the controlled use of potentially hazardous materials, including biological materials, chemicals, and various radioactive compounds. Also, some of our products are hazardous materials or include hazardous materials. We cannot completely eliminate the risk of accidental or other contamination or injury from these materials, and we could be held liable for resulting damages, which could be substantial. Under some laws and regulations, a party can be subject to strict liability for damages caused by some hazardous materials, which means that a party can be liable without regard to fault or negligence. In addition, we are subject to federal, state, local, and foreign laws, regulations, and permits governing the use, storage, handling, and disposal of hazardous materials and specified waste products, as well as the shipment and labeling of materials and products containing hazardous materials. If we fail to comply with any of these laws, regulations, or permits, we could be subject to substantial fine or penalty, payment of remediation costs, loss of permits, and/or other adverse governmental action. Any of these events could harm our business and financial condition.

### **Earthquakes could disrupt operations in California.**

Our management and principal operations are located in the San Francisco Bay area, a region near major California earthquake faults. The ultimate impact of earthquakes on our business, our significant suppliers, and the general infrastructure is unknown, but our business and operating results could be harmed if a major earthquake occurs.

### **The price of Applied Biosystems stock may be volatile.**

The market price of Applied Biosystems stock has in the past been, and may in the future continue to be, volatile due to the risks and uncertainties described in this risk factors section of this report, as well as other factors that may have affected or may in the future affect the market price, such as:

conditions and publicity regarding the genomics, biotechnology, pharmaceutical, or life sciences industries generally;

price and volume fluctuations in the stock market at large which do not relate to our operating performance; and

comments by securities analysts or government officials, including with regard to the viability or profitability of the biotechnology sector generally or with regard to intellectual property rights of life science companies, or our ability to meet market expectations.

The stock market has from time to time experienced extreme price and volume fluctuations that are unrelated to the operating performance of particular companies or the industries in which they compete. In addition, our ability to achieve previously-announced financial targets is subject to a number of risks, uncertainties, and other factors affecting our business and the genomics, biotechnology, pharmaceutical, and life sciences industries generally, many of which are beyond our control. These factors may cause actual results to differ materially. We describe a number of

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these factors throughout this document, including in these risk factors. We cannot assure you that we will meet these targets. If we are not able to meet these targets, it could harm the market price of Applied Biosystems stock.

**Our stockholder rights plan could discourage a change of control and the payment of a premium for stockholders' shares.**

Our stockholder rights plan could delay or prevent other parties from seeking to acquire our company, which would prevent stockholders from profiting from an increase in the market value of their shares as a result of a change in control.

**Item 1B. Unresolved Staff Comments**

Not Applicable.

**Item 2. Properties**

Our corporate headquarters are located in a leased facility in Norwalk, Connecticut. The Applied Biosystems business operations are headquartered in leased and owned facilities in Foster City, California. We own or lease approximately 60 facilities worldwide for manufacturing, distribution, warehousing, research and development, sales and demonstration, service, and administration. The following is a list of the principal and other material operating facilities. Except as otherwise noted below, we use substantially all of the space in these facilities and they are maintained in good working order.

**Location (Approximate Floor Area in Sq. Ft.)**

Foster City, CA (320,000) several buildings  
 Foster City, CA (280,000) several buildings  
 Pleasanton, CA (149,000) three buildings  
 Austin, TX (117,000) three buildings  
 Framingham, MA (90,000) two buildings  
 Warrington, United Kingdom (88,000) two buildings  
 Rotterdam, Netherlands (71,000)  
 Darmstadt, Germany (66,000)  
 Hayward, CA (66,000)  
 Singapore (63,000)  
 Bedford, MA (59,000) two buildings  
 Norwalk, CT (51,000)  
 Rockville, MD (34,000)  
 Tokyo, Japan (31,000)  
 Narita, Japan (24,000)  
 Shanghai, China (19,000)

**Owned or Leased (Expiration Date of Leases)**

Leased (several leases expiring 2009-2015)  
 Owned  
 Owned  
 Leased (2010)  
 Leased (2014)  
 Owned  
 Leased (2010)  
 Leased (2011)  
 Leased (2009)  
 Leased (two leases expiring 2008 and 2011)  
 Leased (two leases expiring 2010 and 2023)  
 Leased (2011)  
 Leased (2010)  
 Leased (2010)  
 Owned  
 Leased (2010)

The Pleasanton, California facilities listed in the table above are located on an 80-acre property that we own. The listed facilities include a manufacturing facility that we constructed, as well as two warehouses that we acquired with the property and that we intend to use to support further construction on the site, if any. We have also completed construction of the shell of another building at the same site with approximately 164,000 square feet. We intend to construct improvements needed for occupancy in this other building as additional space is needed for our operations or possibly the operations of our other businesses. We may construct additional

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research and development, manufacturing, administrative, or other facilities at this property, up to a maximum of approximately 700,000 additional square feet, as may be required for the future growth of our businesses.

As of the end of our 2008 fiscal year, we leased and owned other properties that were part of our former Celera group business but which have been transferred to Celera Corporation with the separation of the Celera group business. The transfer included facilities with an aggregate of approximately 222,000 square feet, located in Alameda, Burlingame, and South San Francisco, California, and Rockville, Maryland, used by the Celera group business for research and development, manufacturing, clinical laboratory services, and administration. The transfer also included a leased facility in Pasadena, California, and an owned a facility in South San Francisco, California, that we had attributed to the Celera group. These facilities had been vacated prior to our 2008 fiscal year. As of the end of our 2008 fiscal year, substantially all of the Pasadena facility had been subleased, and the South San Francisco facility was being marketed for sale. More information about the Celera group separation is set forth above in Item 1 of this report under the heading Celera Separation.

Our Rockville facility listed in the table above is space that is leased by Celera Corp. and that we share with Celera Corp. under an arrangement that is similar to an inter-group sharing arrangement in place prior to the Celera separation.

### **Item 3. Legal Proceedings**

We are involved in various lawsuits, arbitrations, investigations, and other legal actions from time to time with both private parties and governmental entities. These legal actions currently involve, for example, commercial, intellectual property, antitrust, environmental, securities, and employment matters. The following is a description of some claims we are currently defending, including some counterclaims brought against us in response to claims filed by us against others. We believe that we have meritorious defenses against the claims currently asserted against us, including those described below, and intend to defend them vigorously. However, the outcome of legal actions is inherently uncertain, and we cannot be sure that we will prevail in our defense of claims currently asserted against us. An adverse determination in the cases we are currently defending, particularly the claims against us described below under the heading Commercial Litigation, could harm us.

#### **Commercial Litigation**

Enzo Biochem, Inc., Enzo Life Sciences, Inc., and Yale University filed a patent infringement action against us in the U.S. District Court for the District of Connecticut on June 7, 2004. The complaint alleges that we are infringing six patents. Four of these patents are assigned to Yale University and licensed exclusively to Enzo Biochem, i.e., U.S. Patent No. 5,476,928, entitled Modified Nucleotides and Polynucleotides and Complexes Form Therefrom, U.S. Patent No. 5,449,767, entitled Modified Polynucleotides and Methods of Preparing Same, U.S. Patent No. 5,328,824 entitled Methods of Using Labeled Nucleotides, and U.S. Patent No. 4,711,955, entitled Modified Nucleotides and Methods of Preparing and Using Same. These four patents have since expired. The other two patents are assigned to Enzo Life Sciences, i.e., U.S. Patent No. 5,082,830 entitled End Labeled Nucleotide Probe and U.S. Patent No. 4,994,373 entitled Method and Structures Employing Chemically Labelled Polynucleotide Probes. The

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allegedly infringing products include our sequencing reagent kits, our TaqMan<sup>®</sup> genotyping and gene expression assays, and the gene expression microarrays used with our Expression Array System. Enzo Biochem, Enzo Life Sciences, and Yale University are seeking monetary damages, costs, expenses, injunctive relief, and other relief as the court deems proper. In August and September, 2007, the court issued a series of orders favorable to us and dismissing all of these claims, but Enzo may seek to appeal those orders to the United States Court of Appeals for the Federal Circuit.

Molecular Diagnostics Laboratories filed a class action complaint against us, Hoffmann-La Roche Inc., and Roche Molecular Systems, Inc. in the U.S. District Court for the District of Columbia on September 23, 2004, and filed an amended complaint on July 5, 2006. The amended complaint alleges anticompetitive conduct in connection with the sale of Taq DNA polymerase. The anticompetitive conduct is alleged to arise from the prosecution and enforcement of U.S. Patent No. 4,889,818. This patent is assigned to Roche Molecular Systems, Inc., with whom we have a commercial relationship covering, among other things, this patent and the sale of Taq DNA polymerase. The complaint seeks monetary damages, costs, expenses, injunctive relief, and other relief as the court deems proper. On July 5, 2006, the court certified the case as a class action.

We are involved in several legal actions with Thermo Electron Corporation and its subsidiary Thermo Finnigan LLC. These legal actions commenced when we, together with MDS, Inc. and our Applied Biosystems/MDS Analytical Technologies Instruments joint venture with MDS, formerly named Applied Biosystems/MDS SCIEX Instruments, filed a patent infringement action against Thermo Electron in the U.S. District Court for the District of Delaware on September 3, 2004. The complaint alleges infringement by Thermo Electron of U.S. Patent No. 4,963,736, and seeks monetary damages, costs, expenses, and other relief as the court deems proper. Thermo Electron has answered the complaint and counterclaimed for declaratory relief that the 736 patent is invalid, not infringed, and unenforceable, and is seeking dismissal of our complaint, a judgment that the 736 patent is invalid, not infringed, and unenforceable, costs and expenses, and other relief as the court deems proper. After the filing of the action against Thermo Electron, on December 8, 2004, Thermo Finnigan filed a patent infringement action against us in the U.S. District Court for the District of Delaware. The complaint alleges that we have infringed U.S. Patent No. 5,385,654 as a result of, for example, our commercialization of the ABI PRISM<sup>®</sup> 3700 Genetic Analyzer. Thermo Finnigan is seeking monetary damages, costs, expenses, and other relief as the court deems proper. We have answered the complaint and counterclaimed for declaratory relief that the 654 patent is invalid, not infringed, and unenforceable, and are seeking dismissal of Thermo Finnigan's complaint, a judgment that the 654 patent is invalid, not infringed, and unenforceable, costs and expenses, and other relief as the court deems proper. Thermo Finnigan subsequently filed a second patent infringement action against us, MDS, and the Applied Biosystems/MDS Analytical Technologies Instruments joint venture in the U.S. District Court for the District of Delaware on February 23, 2005. The complaint alleges that we and the other defendants have infringed U.S. Patent No. 6,528,784 as a result of, for example, our commercialization of the ABI 5000 LC/MS/MS system. Thermo Finnigan is seeking monetary damages, costs, expenses, and other relief as the court deems proper. We have answered the complaint and counterclaimed for declaratory relief that the 784 patent is invalid and not infringed, and are seeking dismissal of Thermo Finnigan's complaint, a judgment that the 784 patent is invalid and not infringed, costs and expenses, and other relief as the court deems proper.

We filed a complaint for patent infringement against Michigan Diagnostics LLC on March 26, 2007, in the U.S. District Court for the District of Massachusetts. We amended the complaint



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On April 5, 2007. The amended complaint alleges infringement by Michigan Diagnostics of U.S. Patent Nos. 6,514,717, 6,322,727 and 6,107,024, which are related to chemiluminescent products and methods, and seeks monetary damages, costs, expenses, injunctive, and other relief as the court deems proper. Michigan Diagnostics filed an answer and counterclaims to our complaint on January 7, 2008, seeking a declaratory judgment of non-infringement, invalidity, and unenforceability of approximately 60 patents related to chemiluminescent products and methods, and including antitrust claims based on our alleged misconduct in our alleged enforcement of those patents.

We filed a complaint on May 31, 2007, in the U.S. District Court for the Northern District of California against Illumina, Inc., Solexa Inc., and a former chief patent counsel to our company, seeking an injunction restoring to us patents and patent applications that were filed by the former chief patent counsel but are on their face assigned to Solexa, which was acquired by Illumina in January 2007. The complaint also seeks a declaration of our rights and duties regarding infringement of these patents, in addition to monetary damages, costs, expenses, and other relief as the court deems proper. On August 13, 2007, Solexa filed its answer to the complaint and counterclaimed that we make, use, sell, and offer for sale DNA sequencing products that infringe the patents, U.S. Patent Nos. 5,750,341, 5,969,119, 6,306,597. Solexa is seeking monetary damages, costs, expenses, injunctive relief, and other relief as the court deems proper.

On June 9, 2008, Fluidigm Corporation filed a complaint against us in the U.S. District Court for the Southern District of New York seeking a declaratory judgment of non-infringement and invalidity of our U.S. Patent No. 6,814,934, which relates to instruments for real-time PCR detection. The complaint also seeks costs, expenses and other relief as the court deems proper.

On June 30, 2008, Corbett Life Science, Corbett Robotics Inc., and Corbett Research Pty Ltd. filed a complaint against us in the U.S. District Court for the Northern District of California seeking a declaratory judgment of non-infringement, invalidity, and unenforceability of our U.S. Patent No. 6,814,934, which relates to instruments for real-time PCR detection. The complaint also seeks costs, expenses and other relief as the court deems proper.

## **Other Legal Proceedings**

We and some of our officers are defendants in a lawsuit brought on behalf of purchasers of Celera stock in our follow-on public offering of Celera stock completed on March 6, 2000. In the offering, we sold an aggregate of approximately 4.4 million shares of Celera stock at a public offering price of \$225 per share. The lawsuit, which was commenced with the filing of several complaints in April and May 2000, is pending in the U.S. District Court for the District of Connecticut, and an amended consolidated complaint was filed on August 21, 2001. The consolidated complaint generally alleges that the prospectus used in connection with the offering was inaccurate or misleading because it failed to adequately disclose the alleged opposition of the Human Genome Project and two of its supporters, the governments of the U.S. and the U.K., to providing patent protection to our genomic-based products. Although our former Celera group never sought, or intended to seek, a patent on the basic human genome sequence data, the complaint also alleges that we did not adequately disclose the risk that the Celera group would not be able to patent this data. The consolidated complaint seeks monetary damages, rescission, costs and expenses, and other relief as the court deems proper. On March 31, 2005, the court certified the case as a class action.

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We are a party to the action U.S. v. Davis, pending in the U.S. District Court for the District of Rhode Island. We were brought into the case along with numerous other companies as a result of a third party complaint filed by United Technologies Corporation ( UTC ) seeking contribution for environmental cleanup costs imposed by the U.S. government for a property in Rhode Island. Our involvement in this legal action arises from allegations that some of our company s hazardous waste was deposited at this property in the 1970s. In December 1998, the District Court found us liable to UTC along with certain, but not all, of the defendants in the case. We appealed this decision to the U.S. Court of Appeals for the First Circuit, but the appeals court affirmed the decision. Until recently, we expected the cleanup of this property to be limited to soil contamination and we had expected that the amount of our liability for this property would be less than \$200,000. In December 2007, we were notified by the U.S. Environmental Protection Agency, or EPA, that it intends to conduct a study of groundwater contamination at the property, rejecting the conclusions of a study of the site that had been performed by one of our co-defendants, Ashland Chemical. We, along with some other co-defendants, may be required to contribute substantial additional funds to the cleanup of the groundwater, depending on the findings of the EPA study and whether it orders a cleanup plan. Also, Ashland Chemical has sued us and other co-defendants for contribution towards the approximately \$2 million it allegedly incurred for its groundwater study as well as future groundwater cleanup costs.

In May 2007, the California Regional Water Quality Control Board issued an administrative order that requires us to conduct an environmental investigation and remediation, or cleanup, at a property in Mountain View, California. The property was occupied from 1963 through 1984 by one of our former operating divisions that was discontinued shortly after it vacated the property. The order is based on allegations of environmental contamination at the site caused by the former division in the 1960s and 1970s. The proceedings before the Board formally commenced in November 2006, and in May 2007 the Board issued a final order that named us and the current property owner as the responsible parties. Under the terms of an agreement between us and the current property owner, we are responsible for the costs associated with cleanup of the property, but we believe these costs, other than a portion of our legal fees, will be covered by insurance. We have commenced cleanup activities pursuant to and in accordance with the order. We previously considered appealing the order but we are no longer pursuing that appeal.

### **Celera Separation Indemnity Provisions**

On May 8, 2008, we entered into a Separation Agreement with Celera Corporation, at that time one of our wholly-owned subsidiaries, to separate all of the business, assets, and liabilities of the Celera group from our remaining business. This separation was completed on July 1, and Celera Corp. is now an independent company that holds all of the business, assets, and liabilities previously attributed to the Celera group. More information about the Celera group separation is set forth above in Item 1 of this report under the heading Celera Separation.

Under the terms of the Separation Agreement, Celera Corp. has agreed to indemnify us for losses we incur in connection with the class action lawsuit relating to the 2000 offering of Celera stock, described above. Celera Corp. has also agreed to indemnify us for losses we incur in connection with the Enzo Biochem/Enzo Life Sciences/Yale University, Molecular Diagnostics, Fluidigm, and Corbett legal actions described above, but only to the extent that, after a final resolution of these matters, the losses are determined to relate to the business, assets, or liabilities of the Celera group. This determination, however, would require the agreement of Celera Corp., and if agreement could not be reached we would need to seek to resolve any dispute pursuant to the procedures set forth in the Separation Agreement. Accordingly, we cannot provide any assurances

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as to whether or to what extent we may seek or obtain indemnity payments from Celera Corp. for losses incurred in connection with the Enzo Biochem/Enzo Life Sciences/Yale University, Molecular Diagnostics, Fluidigm, or Corbett legal actions. The Separation Agreement contains similar provisions for future legal actions against us that may involve both the Applied Biosystems and Celera businesses, and for the same reasons it is inherently uncertain whether we would be able to seek or recover any indemnity payments from Celera Corp. for losses incurred in any future legal actions. Under the Separation Agreement the amount of any indemnity payable to us for losses from any of these legal actions would be reduced by the amount of any insurance proceeds we receive covering the underlying loss, as well as the tax benefit realized because of the loss.

### **Item 4. Submission of Matters to a Vote of Security Holders**

Not applicable.

## **PART II**

### **Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities Market Information**

The principal U.S. market where shares of Applied Biosystems stock are traded is the New York Stock Exchange. Applied Biosystems stock is listed on the New York Stock Exchange under the trading symbol ABI. We also previously were the issuer of Celera stock, but all of the outstanding shares of this class of stock were redeemed and exchanged pursuant to the separation of the Celera group business, which is described above in Item 1 of this report under the heading Celera Separation.

The high and low sales prices of Applied Biosystems stock and Celera stock for each quarterly period during our 2008 and 2007 fiscal years is incorporated herein by reference to Note 13 to our consolidated financial statements on pages 78 and 79 of our 2008 Annual Report.

### **Holdings and Market Value Calculation**

On August 25, 2008, the approximate number of holders of Applied Biosystems stock was 4,773. The approximate number of holders is based upon the actual number of holders registered in our records at such date and excludes holders of shares in street name or persons, partnerships, associations, corporations, or other entities identified in security position listings maintained by depository trust companies. The calculation of the market value of shares of Applied Biosystems stock and Celera stock held by non-affiliates as of December 31, 2007, shown on the cover of this report, was made on the assumption that there were no affiliates other than executive officers and directors as of the date of calculation.

### **Dividends**

Information about the amount of quarterly dividends paid on Applied Biosystems stock during our 2008 and 2007 fiscal years is incorporated herein by reference to Note 13 to our consolidated financial statements on pages 78 and 79 of our 2008 Annual Report. Under the

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Invitrogen Merger Agreement, we are allowed to continue paying our regular quarterly dividend of \$0.0425 per share of Applied Biosystems stock but are otherwise restricted from paying any dividends on our stock. More information about the Merger Agreement is set forth above in Item 1 of this report under the heading **Invitrogen Merger Agreement**.

We never paid any dividends on Celera stock prior to the redemption and exchange of all outstanding shares of Celera stock pursuant to the separation of the Celera group business, which is described above in Item 1 of this report under the heading **Celera Separation**.

**Sale of Unregistered Securities**

We have not sold any equity securities during our 2008 fiscal year that were not registered under the Securities Act of 1933.

**Issuer Purchases of Equity Securities**

This table provides information about our purchases of shares of Applied Biosystems stock during the fourth quarter of our 2008 fiscal year.

| Period           | Total Number<br>of Shares<br>Purchased | Average Price<br>Paid per<br>Share | Total Number of<br>Shares Purchased<br>as Part of Publicly<br>Announced Plans<br>or Programs | Maximum Number (or<br>Approximate Dollar<br>Value) of Shares that<br>May Yet Be Purchased<br>Under the Plans or<br>Programs (1) (2) (3) |
|------------------|--|------------------------------------|--|---|
| April 1-30, 2008 |  |                                    |  | \$500 million   |
| May 1-31, 2008   |  |                                    |  | \$500 million   |
| June 1-30, 2008  |  |                                    |  | \$500 million   |
| Total            |  |                                    |  | \$500 million   |

- (1) On April 26, 2007, we announced that our Board of Directors authorized the repurchase of up to 18,400,000 shares of Applied Biosystems stock, in addition to the authorization described in footnote (2) below. On August 8, 2007, we announced that our Board of Directors increased this authorization to \$1.2 billion (in the aggregate, including approximately \$100 million of Applied Biosystems stock previously repurchased under the authorization prior to the increase), which at market prices on that date represented approximately 20% of the outstanding shares of Applied Biosystems stock, or double the authorization prior to the increase. The increased authorization has no time restrictions and delegates to Company management discretion to purchase shares at times and prices it deems appropriate through open market purchases, privately negotiated transactions, tender offers, exchange offers, or otherwise. Subsequent to the increase in the authorization, we engaged in an Accelerated Share Repurchase Transaction with Morgan Stanley & Co. Incorporated. Pursuant to this transaction, we paid Morgan Stanley \$600 million, plus transaction costs, in exchange for a total of approximately 17.9 million shares at an average price per share of \$33.5276, excluding transaction costs. This transaction was completed in January 2008. The dollar value reported in this column represents the maximum dollar value of shares that could have been repurchased under the increased authorization at the end of each month of the fourth fiscal quarter taking into account the completed Accelerated Share Repurchase Transaction. More information about the Accelerated Share Repurchase Transaction is set forth above in Item 1 of this report under the heading **Company Overview-Accelerated Share Repurchase; Term Loan**.
- (2) We previously announced that our Board of Directors has authorized the repurchase of shares of Applied Biosystems stock from time to time to replenish shares issued under our various employee stock benefit plans. This authorization has no set dollar or time limits and delegates to our management discretion to

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purchase shares at times and prices it deems appropriate through open market or negotiated purchases. Accordingly, the amounts in this column do not reflect this authorization. No shares were purchased under this authorization during the fourth quarter of our 2008 fiscal year.

- (3) Under the Invitrogen Merger Agreement, we are restricted from repurchasing shares of Applied Biosystems stock, including pursuant to the authorizations described in footnotes (1) and (2) above. More information about the Merger Agreement is set forth above in Item 1 of this report under the heading **Invitrogen Merger Agreement**.

This table provides information about our purchases of shares of Celera stock during the fourth quarter of our 2008 fiscal year.

| Period           | Total Number of Shares Purchased | Average Price Paid per Share | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs (1) |
|------------------|----------------------------------|------------------------------|--|--|
| April 1-30, 2008 |                                  |                              |  |  |
| May 1-31, 2008   |                                  |                              |  |  |
| June 1-30, 2008  |                                  |                              |  |  |

Total

- (1) We previously announced that our Board of Directors had authorized the repurchase of shares of Celera stock from time to time to replenish shares issued under our various employee stock benefit plans. This authorization had no set dollar or time limits and delegated to our management discretion to purchase shares at times and prices it deemed appropriate through open market or negotiated purchases. Accordingly, the amounts in this column do not reflect this authorization. No shares were purchased under this authorization during the fourth quarter of our 2008 fiscal year. We no longer issue Celera stock because of the separation of the Celera group business described earlier in Item 1 of this report under the heading **Celera Separation**. Therefore, this authorization is no longer relevant.

**Item 6. Selected Financial Data**

We incorporate herein by reference pages 6 and 7 of our 2008 Annual Report.

**Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

We incorporate herein by reference pages 8 through 39 of our 2008 Annual Report.

**Item 7A. Quantitative and Qualitative Disclosures about Market Risk**

We incorporate herein by reference pages 38 and 39 of our 2008 Annual Report.

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### **Item 8. Financial Statements and Supplementary Data**

The following financial statements and the supplementary financial information included in our 2008 Annual Report are incorporated herein by reference: the Consolidated Financial Statements and the report thereon of PricewaterhouseCoopers LLP dated August 27, 2008, on pages 40 through 94 of our 2008 Annual Report, including Note 13 on pages 78 and 79, which contains unaudited quarterly financial information.

### **Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

Not applicable.

### **Item 9A. Controls and Procedures**

#### **Disclosure Controls and Procedures**

We are responsible for maintaining disclosure controls and procedures, as defined by the Securities and Exchange Commission in its Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934. Disclosure controls and procedures are controls and other procedures designed to ensure that the information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Our management evaluated the effectiveness of our disclosure controls and procedures as of the end of our 2008 fiscal year, the period covered by this report. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are effective to achieve their stated purpose. However, there is no assurance that our disclosure controls and procedures will operate effectively under all circumstances.

#### **Internal Control Over Financial Reporting**

*General.* We are responsible for maintaining internal control over financial reporting, as defined by the Securities and Exchange Commission in its Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Internal control over financial reporting is a process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our Board of Directors, management, and other personnel, to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that: (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted

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accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements.

*Management Report on Internal Control Over Financial Reporting.* Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our internal control over financial reporting as of the end of our 2008 fiscal year, the period covered by this report. The report of our management on internal control over financial reporting, based on this evaluation, appears on page 93 of our 2008 Annual Report. The management report is incorporated into this report by reference.

*Attestation Report of our Independent Registered Public Accounting Firm.* The report of our independent registered public accounting firm on the effectiveness of our internal control over financial reporting appears on page 94 of our 2008 Annual Report. The attestation report is incorporated into this report by reference.

*Changes in Internal Control Over Financial Reporting.* Based on our management's review of internal control over financial reporting as described above, we have not identified any changes made to our internal control over financial reporting during the fourth fiscal quarter of our 2008 fiscal year that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

### **Item 9B. Other Information**

Not applicable.

## **PART III**

### **Item 10. Directors, Executive Officers and Corporate Governance Identification and Business Experience of Directors**

With respect to the identification and business experience of our directors and persons nominated to become directors, we incorporate herein by reference the information contained in our 2008 Proxy Statement under the heading "Proposal 1 Election of Directors."

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**Identification and Business Experience of Executive Officers**

The following is a list of our executive officers, identifying as of August 27, 2008, their: ages; corporate offices presently held and year first elected to those offices; and other positions currently held.

| <b>Name</b>       | <b>Age</b> | <b>Present Corporate Offices (Year First Elected)</b>    |
|-------------------|------------|--|
| Ugo D. DeBlasi    | 46         | Vice President and Controller (2003)                     |
| Barbara J. Kerr   | 62         | Senior Vice President, Human Resources (2008)            |
| William B. Sawch  | 53         | Senior Vice President (1997) and General Counsel (1993)  |
| Mark P. Stevenson | 45         | President and Chief Operating Officer (2008)             |
| Tony L. White     | 62         | Chairman and Chief Executive Officer (1995)              |
| Dennis L. Winger  | 60         | Senior Vice President and Chief Financial Officer (1997) |

Each of the executive officers identified above was most recently elected to the corporate offices identified above by our Board of Directors at a meeting held on August 21, 2008. The term of each officer will continue until their successors have been duly elected or, if earlier, their death, resignation, or removal. Each of the executive officers has been employed by us or a subsidiary in one or more executive or managerial capacities for at least the past five years.

At the August Board meeting, the Board took several actions regarding our executive officers:

The Board promoted Mr. Stevenson to the position of President and Chief Operating Officer of the company. Mr. White accordingly relinquished his position as President of the company but continues to be our Chairman and Chief Executive Officer. Prior to Mr. Stevenson's August 2008 promotion, he was promoted to the positions of Senior Vice President of the company and President and Chief Operating Officer of the Applied Biosystems Group in December 2007. Prior to that, he served as one of our Vice Presidents since 2004.

The Board promoted Barbara J. Kerr to the position of Senior Vice President, Human Resources, of the company. Prior to the promotion, Ms. Kerr had served as Vice President, Human Resources, since 2000.

The Board determined that Sandeep Nayyar, an Assistant Controller of the company, should no longer be designated as one of our executive officers. This determination, which resulted solely from the Celera separation, did not affect Mr. Nayyar's employment or corporate office.

In connection with the separation of the Celera group business described in Item 1 of this report, the following individuals, previously executive officers of the company, terminated their employment with us on July 1, 2008, and became executive officers of Celera Corporation: Joel Jung, formerly Assistant Controller; and Kathy P. Ordoñez, formerly Senior Vice President and President, Celera Group.

**Family Relationships**

To the best of our knowledge and belief, there is no family relationship between any of our directors, executive officers, or persons nominated or chosen by us to become a director or an executive officer.



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### **Involvement in Certain Legal Proceedings**

To the best of our knowledge and belief, none of our directors, persons nominated to become directors, or executive officers has been involved in any proceedings during the past five years that are material to an evaluation of the ability or integrity of such persons to be our directors or executive officers.

### **Audit Committee and Audit Committee Financial Expert**

We have a separately designated standing audit committee of our Board of Directors established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934. We have named that committee our Audit/Finance Committee. The members of that committee as of the date of this report are George F. Adam, Jr., Robert H. Hayes (co-chair), Theodore E. Martin, and James R. Tobin (co-chair). Our Board of Directors has determined that Messrs. Adam, Martin, and Tobin are audit committee financial experts as that term has been defined by the Securities and Exchange Commission in Item 407(d)(5) of its Regulation S-K. The designation of members of our Audit/Finance Committee as audit committee financial experts does not impose on those members any duties, obligations, or liabilities that are greater than those generally imposed on them as members of our Audit/Finance Committee and Board of Directors, and does not affect the duties, obligations, or liabilities of any other member of our Audit/Finance Committee or Board of Directors. Additional information about our Audit/Finance Committee is incorporated by reference to the information contained in our 2008 Proxy Statement under the heading Board of Directors and Committees Board Committees Audit/Finance Committee.

### **Recommendation of Nominees to our Board of Directors**

Information concerning our procedures by which security holders may recommend nominees to our Board of Directors is incorporated herein by reference to the information contained in our 2008 Proxy Statement under the heading Board of Directors and Committees Board Committees Nominating/Corporate Governance Committee. We have not made any material changes to these procedures since they were last disclosed in our Proxy Statement relating to our 2007 Annual Meeting of Stockholders.

### **Section 16(a) Beneficial Ownership Reporting Compliance**

We are required to identify any officer, director, or beneficial owner of more than 10% of our Applied Biosystems stock or Celera stock who failed to timely file with the Securities and Exchange Commission and the New York Stock Exchange a required report relating to beneficial ownership of stock under Section 16(a) of the Securities Exchange Act of 1934. Based solely on a review of information provided to us, all persons subject to these reporting requirements filed the required reports on a timely basis for our 2008 fiscal year.

### **Code of Ethics**

We have adopted a code of ethics that applies to our officers, directors, and employees. Our code of ethics, which we refer to as our Code of Business Conduct and Ethics, was designed to comply with the definition of code of ethics adopted by the Securities and Exchange Commission as applicable to our Chief Executive Officer (our principal executive officer), our Chief Financial Officer (our principal financial officer), and our Controller (our principal

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accounting officer). This definition is contained in Item 406(b) of the SEC's Regulation S-K. Our code of ethics was also designed to meet the code of business conduct and ethics requirements promulgated by the New York Stock Exchange, which requirements are set forth in Section 303A.10 of the NYSE Listed Company Manual.

Our Code of Business Conduct and Ethics is posted on our Internet website, which is located at [www.appliedbiosystems.com](http://www.appliedbiosystems.com). Also, we intend to post any amendments to or waivers from the code that are applicable to our officers or directors on our Internet website as required to satisfy SEC and New York Stock Exchange disclosure requirements applicable to amendments and waivers. This information can be accessed on our website free of charge as described in Part I, Item 1 of this report on pages 3 and 4 under the heading Available Information. In addition, you can obtain this information free of charge by calling our corporate Secretary at 203-840-2000 or by making a request in writing mailed to: Applied Biosystems Inc., Attention: Secretary, Applied Biosystems Inc., 301 Merritt 7, Norwalk, CT 06851-1070.

**Item 11. Executive Compensation**

Information concerning executive compensation is incorporated herein by reference to the information contained in our 2008 Proxy Statement under the heading Executive Compensation. We also incorporate by reference the information contained in our 2008 Proxy Statement under the heading Corporate Governance Compensation Committee Interlocks and Insider Participation, and the report of the Management Resources Committee of our Board of Directors contained in our 2008 Proxy Statement under the heading Executive Compensation Compensation Committee Report.

**Table of Contents****Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters  
Securities Authorized for Issuance Under Equity Compensation Plans**

The following table provides information about shares of Applied Biosystems stock that may be issued under our equity compensation plans, including compensation plans that were approved by our stockholders as well as compensation plans that were not approved by our stockholders. Information in the table is as of the end of our 2008 fiscal year.

| <b>Plan Category</b>                                   | <b>Number of shares to be issued upon exercise of outstanding options, warrants, and rights<br/>(a)</b> | <b>Weighted-average exercise price of outstanding options, warrants, and rights<br/>(b)</b> | <b>Number of shares remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))<br/>(c)</b> |
|--|---|---|--|
| Equity compensation plans approved by stockholders     | 20,386,759 <sup>1</sup>   | \$37.1514 <sup>2</sup>  | 9,049,762 <sup>3</sup>   |
| Equity compensation plans not approved by stockholders | 0   | 0   | 0  |
| <b>Total</b>   | <b>20,386,759<sup>1</sup></b>   | <b>\$37.1514<sup>2</sup></b>  | <b>9,049,762<sup>3</sup></b>   |

- (1) The number in this column includes: 18,230,620 shares of Applied Biosystems stock issuable upon the exercise of options outstanding under The Perkin-Elmer Corporation 1998 Stock Incentive Plan and our Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan; 1,980,635 restricted stock units ( RSUs ) outstanding under the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan, each of which represents the right to receive one share of Applied Biosystems stock at the time the RSU vests; and 175,504 units outstanding under the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan and the Amended and Restated 1993 Director Stock Purchase and Deferred Compensation Plan, each of which represents a full share of stock deferred by non-management directors. The number in this column does not include outstanding rights under our 1999 Employee Stock Purchase Plan (the ESPP ), which are discussed in footnote (3) below.
- (2) The weighted-average exercise price calculation does not take into account the RSUs and deferred stock units referred to in note 1 to this table because the conversion or settlement of these rights into stock does not require the payment of consideration.
- (3) The number in this column includes: 7,742,215 shares of Applied Biosystems stock issuable pursuant to options and other rights authorized for future issuance under our Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan; 288,302 shares of Applied Biosystems stock remaining available for future issuance under our 1993 Director Stock Purchase and Deferred Compensation Plan; and 1,019,245 shares of Applied Biosystems stock remaining available for future issuance under our ESPP. As of the end of our 2008 fiscal year, we had open ESPP purchase periods in several foreign countries which could result in the future issuance of shares out of the 1,019,245 reserve under that plan. However, the total number of shares that are subject to purchase in relation to these ESPP purchase periods will vary depending on the final determination of the applicable per share purchase price and fluctuations in exchange rates between local currencies and the U.S. Dollar.

We note that, as of the end of our 2008 fiscal year, we had equity compensation plans under which shares of our Celera stock could have been issued. However, effective as of July 1, 2008, we no longer issue Celera stock because of the separation of the Celera group business described earlier in Item 1 of this report under the heading Celera Separation. All of the options, warrants, and rights to acquire Celera stock that were outstanding on June 30 were assumed by Celera Corporation pursuant to the Celera separation, and we will no longer issue any shares of

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Celera stock, or options, warrants, or rights to Celera stock, pursuant to any of our equity compensation plans. Accordingly, the table above does not include information regarding options, warrants, or rights to purchase Celera stock outstanding at the end of our 2008 fiscal year or the equity compensation plans under which shares of Celera stock could have been issued as of the end of our 2008 fiscal year.

### **Security Ownership of Certain Beneficial Owners**

Information concerning the security ownership of certain beneficial owners is incorporated herein by reference to the information contained in our 2008 Proxy Statement under the heading "Ownership of Company Stock - Greater than 5% Beneficial Owners."

### **Security Ownership of Management**

Information concerning the security ownership of management is incorporated herein by reference to the information contained in our 2008 Proxy Statement under the heading "Ownership of Company Stock - Directors and Executive Officers."

### **Changes in Control**

On June 11, 2008, we entered into an Agreement and Plan of Merger with Invitrogen Corporation and Atom Acquisition, LLC, a direct wholly-owned subsidiary of Invitrogen. Pursuant to the Invitrogen Merger Agreement, subject to conditions specified in the Merger Agreement, we will merge with and into Atom Acquisition, with that company continuing as the surviving company and a direct wholly-owned subsidiary of Invitrogen. More information about the Merger Agreement is set forth above in Item 1 of this report under the heading "Invitrogen Merger Agreement." We otherwise know of no arrangements, including any pledge by any person of our securities, the operation of which may at a subsequent date result in a change in control of our company.

### **Item 13. Certain Relationships and Related Transactions, and Director Independence**

Information concerning certain relationships and related party transactions and director independence is incorporated herein by reference to the information contained in our 2008 Proxy Statement under the headings "Corporate Governance - Related Party Transactions" and "Corporate Governance - Director Independence."

### **Item 14. Principal Accountant Fees and Services**

Information concerning fees billed by PricewaterhouseCoopers LLP, our independent registered public accounting firm, during our 2008 and 2007 fiscal years, and information concerning the pre-approval policies and procedures of the Audit/Finance Committee of our Board of Directors, is incorporated herein by reference to the information contained in our 2008 Proxy Statement under the heading "Proposal 2 - Ratification of the Selection of Independent Registered Public Accounting Firm."

**Table of Contents****PART IV****Item 15. Exhibits and Financial Statement Schedules  
Financial Statements**

The following financial statements, together with the report thereon of PricewaterhouseCoopers LLP dated August 27, 2008, appearing in our 2008 Annual Report, are incorporated by reference in this report. With the exception of the aforementioned information and that which is specifically incorporated in Parts I and II of this report, our 2008 Annual Report is not to be deemed filed as part of this report.

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| Consolidated Statements of Operations<br>Fiscal years 2008, 2007, and 2006           | 40                            |
| Consolidated Statements of Financial Position<br>At June 30, 2008 and 2007           | 41                            |
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**Table of Contents****Financial Statement Schedule**

The following additional financial data should be read in conjunction with the consolidated financial statements in our 2008 Annual Report. Schedules not included with this additional financial data have been omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

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| Report of Independent Registered Public Accounting Firm on Financial Statement Schedule | 67                   |
| Schedule II Valuation and Qualifying Accounts and Reserves                              | 68                   |

**Exhibits****Exhibit**

- No.**
- 2.1 Agreement and Plan of Merger dated March 10, 1999, among The Perkin-Elmer Corporation, a New York corporation, the company, and PE Merger Corp., a New York corporation (incorporated by reference to Exhibit 2.1 to our Registration Statement on Form S-4 (No. 333-67797)).
- 2.2 Agreement and Plan of Merger dated as of December 24, 2005, by and among Ambion, Inc., the company, Ambion Acquisition Corp., and Matthew M. Winkler, in his capacity as Representative (incorporated by reference to Exhibit 10.4 to our Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2005 (Commission file number 001-04389)).
- 2.3 Agreement and Plan of Merger dated as of August 31, 2007, among the company, Barolo Acquisition, Inc., Berkeley HeartLab, Inc., and James Caccavo as the Shareholder Representative (incorporated by reference to Exhibit 2.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2007 (Commission file number 001-04389)).
- 2.4 Agreement and Plan of Merger dated as of June 11, 2008, among Invitrogen Corporation, Atom Acquisition, LLC, and the company (incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K/A dated June 11, 2008, and filed June 23, 2008 (Commission file number 001-04389)).
- 3.1.1 Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K dated November 30, 2006, and filed December 1, 2006 (Commission file number 001-04389)).
- 3.1.2 Certificate of Designations of Series A Participating Junior Preferred Stock and Series B Participating Junior Preferred Stock (incorporated by reference to Exhibit A to Exhibit 4.1 to our Registration Statement on Form S-4 (No. 333-67797)).
- 3.2 By-laws as amended through August 21, 2008 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K dated August 21, 2008, and filed August 26, 2008 (Commission file number 001-04389)).

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- 4.1.1 Stockholder Protection Rights Agreement dated as of April 28, 1999, between the company and BankBoston, N.A. (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form S-4 (No. 333-67797)).
- 4.1.2 Amendment to Rights Agreement dated as of April 17, 2002, among BankBoston, N.A., EquiServe Trust Company, N.A., and the company (incorporated by reference to Exhibit 4.2 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2002 (Commission file number 001-04389)).
- 4.1.3 Second Amendment to Rights Agreement dated as of June 11, 2008, by and between the company and EquiServe Trust Company, N.A. (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K dated June 11, 2008, and filed June 12, 2008 (Commission file number 001-04389)).
- 4.2 Credit Agreement dated as of May 25, 2007, among the company, the initial lenders named therein, Citigroup Global Markets Inc., as sole arranger, JPMorgan Chase Bank, N.A., as syndication agent, Bank of America, N.A. and ABN AMRO Bank N.V., as co-documentation agents, and Citibank, N.A., as administrative agent (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K dated May 25, 2007, and filed May 31, 2007 (Commission file number 001-04389)).
- 4.3 Term Loan Agreement dated as of August 27, 2007, among the company, Bank of America, N.A., as administrative agent, and the initial lenders named therein (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K dated August 27, 2007, and filed August 28, 2007 (Commission file number 001-04389)).
- 10.1.1 The Perkin-Elmer Corporation 1997 Stock Incentive Plan (incorporated by reference to Exhibit 99 to our Registration Statement on Form S-8 (No. 333-38713)).\*
- 10.1.2 Form of Non-Qualified Stock Option Agreement for executive officers pursuant to The Perkin-Elmer Corporation 1997 Stock Incentive Plan (incorporated by reference to Exhibit 10.4.2 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.2.1 The Perkin-Elmer Corporation 1998 Stock Incentive Plan (incorporated by reference to Exhibit B to our Proxy Statement for our 1998 Annual Meeting of Stockholders (Commission file number 001-04389)).\*
- 10.2.2 Form of Director Stock Option Agreement pursuant to The Perkin-Elmer Corporation 1998 Stock Incentive Plan (incorporated by reference to Exhibit 10.5.2 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.3 1999 Employee Stock Purchase Plan, as amended October 18, 2007 (incorporated by reference to Annex A to Schedule 14A, filed September 6, 2007, containing our definitive Proxy Statement for our 2007 Annual Meeting of Stockholders (Commission file number 001-04389)).\*
- 10.4.1 Applied Biosystems Group 1999 Stock Incentive Plan, as amended through August 21, 2003 (incorporated by reference to Exhibit 10.7 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2003 (Commission file number 001-04389)).\*
- 10.4.2 Form of Non-Qualified Stock Option Agreement for executive officers pursuant to the Applied Biosystems Group 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.7.2 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.4.3 Form of Incentive Stock Option Agreement for executive officers pursuant to the Applied Biosystems Group 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.7.3 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.4.4 Forms of Stock Option Agreements for executive officers pursuant to the Applied Biosystems Group 1999 Stock Incentive Plan, relating to non-qualified options issued in conjunction with

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- awards under the Performance Unit Bonus Plan (incorporated by reference to Exhibit 10.7.4 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.4.5 Form of Director Stock Option Agreement pursuant to the Applied Biosystems Group 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.7.6 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.4.6 Forms of Performance Stock Option Agreements for executive officers pursuant to the Applied Biosystems Group 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.7.7 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.5.1 Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan, effective October 21, 2004 (incorporated by reference to Annex B to Schedule 14A, filed September 17, 2004, containing our definitive Proxy Statement for our 2004 Annual Meeting of Stockholders (Commission file number 001-04389)).\*
- 10.5.2 Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan, as amended on October 19, 2006 (incorporated by reference to Annex A to Schedule 14A, filed September 11, 2006, containing our definitive Proxy Statement for our 2006 Annual Meeting of Stockholders (Commission file number 001-04389)).\*
- 10.5.3 Form of Non-Qualified Stock Option Agreement for executive officers pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.8.2 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.5.4 Form of Incentive Stock Option Agreement for executive officers pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.8.3 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.5.5 Form of Non-Qualified Stock Option Agreement for executive officers pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan, as amended on October 19, 2006 (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2007 (Commission file number 001-04389)).\*
- 10.5.6 Form of Restricted Stock Bonus Agreement for executive officers pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.8.4 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.5.7 Form of Restricted Stock Unit Award Agreement for awards to executive officers pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan relating to performance during the 2006 through 2009 fiscal years (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2005 (Commission file number 001-04389)).\*
- 10.5.8 Form of Restricted Stock Unit Award Agreement for awards to executive officers pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan that vest based on performance (incorporated by reference to Exhibit 10.8.6 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2006 (Commission file number 001-04389)).\*
- 10.5.9 Form of Performance Share Award Agreement for executive officers pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan relating to performance during the 2007 through 2009 fiscal years (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2006 (Commission file number 001-04389)).\*



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- 10.5.10 Form of Director Stock Option Agreement pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.6 to our Current Report on Form 8-K dated October 21, 2004, and filed October 27, 2004 (Commission file number 001-04389)).\*
- 10.5.11 Form of Director Stock Award Agreement pursuant to the Applied Biosystems Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.4 to our Current Report on Form 8-K dated October 21, 2004, and filed October 27, 2004 (Commission file number 001-04389)).\*
- 10.6.1 Celera Group 1999 Stock Incentive Plan, as amended through August 21, 2003 (incorporated by reference to Exhibit 10.8 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2003 (Commission file number 001-04389)).\*
- 10.6.2 Form of Non-Qualified Stock Option Agreement for executive officers pursuant to the Celera Group 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.9.2 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.6.3 Form of Incentive Stock Option Agreement for executive officers pursuant to the Celera Group 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.9.3 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.6.4 Forms of Stock Option Agreements for executive officers pursuant to the Celera Group 1999 Stock Incentive Plan, relating to non-qualified options issued in conjunction with awards under the Performance Unit Bonus Plan (incorporated by reference to Exhibit 10.9.4 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.6.5 Form of Director Stock Option Agreement pursuant to the Celera Group 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.9.6 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.6.6 Form of Scientific Advisory Board Stock Option Agreement pursuant to the Celera Group 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.9.7 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.7.1 Celera Group Amended and Restated 1999 Stock Incentive Plan, effective October 21, 2004 (incorporated by reference to Annex C to Schedule 14A, filed September 17, 2004, containing our definitive Proxy Statement for our 2004 Annual Meeting of Stockholders (Commission file number 001-04389)).\*
- 10.7.2 Celera Group Amended and Restated 1999 Stock Incentive Plan, as amended on October 19, 2006 (incorporated by reference to Annex B to Schedule 14A, filed September 11, 2006, containing our definitive Proxy Statement for our 2006 Annual Meeting of Stockholders (Commission file number 001-04389)).\*
- 10.7.3 Form of Non-Qualified Stock Option Agreement for executive officers pursuant to the Celera Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.10.2 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.7.4 Form of Incentive Stock Option Agreement for executive officers pursuant to the Celera Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.10.3 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.7.5 Form of Non-Qualified Stock Option Agreement for executive officers pursuant to the Celera Group Amended and Restated 1999 Stock Incentive Plan, as amended on October 19, 2006 (incorporated by reference to Exhibit 10.3 to our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2007 (Commission file number 001-04389)).\*

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- 10.7.6 Form of Restricted Stock Bonus Agreement for executive officers pursuant to the Celera Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.10.4 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.7.7 Form of Restricted Stock Unit Award Agreement for awards to executive officers pursuant to the Celera Group Amended and Restated 1999 Stock Incentive Plan that vest based on performance (incorporated by reference to Exhibit 10.10.5 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2006 (Commission file number 001-04389)).\*
- 10.7.8 Form of Performance Share Award Agreement for executive officers pursuant to the Celera Group Amended and Restated 1999 Stock Incentive Plan relating to performance during the 2007 through 2009 fiscal years (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2006 (Commission file number 001-04389)).\*
- 10.7.9 Form of Director Stock Option Agreement pursuant to the Celera Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.7 to our Current Report on Form 8-K dated October 21, 2004, and filed October 27, 2004 (Commission file number 001-04389)).\*
- 10.7.10 Form of Director Stock Award Agreement pursuant to the Celera Group Amended and Restated 1999 Stock Incentive Plan (incorporated by reference to Exhibit 10.5 to our Current Report on Form 8-K dated October 21, 2004, and filed October 27, 2004 (Commission file number 001-04389)).\*
- 10.8 The Perkin-Elmer Corporation Supplemental Retirement Plan effective as of August 1, 1979, as amended through October 1, 1996 (incorporated by reference to Exhibit 10(22) to our Annual Report on Form 10-K for the fiscal year ended June 30, 2000 (Commission file number 001-04389)).\*
- 10.9 Supplemental Executive Retirement Plan effective as of December 31, 2005, as amended and restated as of August 28, 2006 (incorporated by reference to Exhibit 10.3 to our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2006 (Commission file number 001-04389)).\*
- 10.10 Excess Benefit Plan, as amended and restated effective July 1, 2004 (incorporated by reference to Exhibit 10.10 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2004 (Commission file number 001-04389)).\*
- 10.11 Amended and Restated 1993 Director Stock Purchase and Deferred Compensation Plan (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated February 8, 2008, and filed February 11, 2008 (Commission file number 001-04389)).\*
- 10.12.1 Performance Unit Bonus Plan, as amended through August 21, 2003 (incorporated by reference to Exhibit 10.14 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2003 (Commission file number 001-04389)).\*
- 10.12.2 Forms of Performance Unit Agreements for executive officers pursuant to the Performance Unit Bonus Plan (incorporated by reference to Exhibit 10.14.2 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.13 Estate Enhancement Plan (incorporated by reference to Exhibit 10(22) to our Annual Report on Form 10-K for the fiscal year ended June 30, 1997 (Commission file number 001-04389)).\*
- 10.14.1 Deferred Compensation Plan, as amended and restated effective as of January 1, 2002 (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2001 (Commission file number 001-04389)).\*
- 10.14.2 Amendment, dated as of November 17, 2005, to the Deferred Compensation Plan (incorporated by reference to Exhibit 10.3 to our Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2005 (Commission file number 001-04389)).\*

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- 10.15 Axys Pharmaceuticals, Inc. 1989 Stock Plan, as amended through May 21, 1997 (incorporated by reference to Exhibit 10.2 to Annual Report on Form 10-K of Axys Pharmaceuticals, Inc. for the fiscal year ended December 31, 1996 (Commission file number 0-22788)).\*
- 10.16 Axys Pharmaceuticals, Inc. 1997 Equity Incentive Plan, as amended through May 14, 2001 (incorporated by reference to Exhibit 10.30 to our Registration Statement on Form S-8 (No. 333-73980)).\*
- 10.17 Axys Pharmaceuticals, Inc. 1997 Non-Officer Equity Incentive Plan, as amended through October 16, 1998 (incorporated by reference to Exhibit 10.31 to our Registration Statement on Form S-8 (No. 33-73980)).\*
- 10.18 Form of notice to directors, officers, and other employees regarding January 20, 2005, acceleration of stock option vesting, including notice to directors and executive officers regarding restrictions imposed on their accelerated options (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2004 (Commission file number 001-04389)).\*
- 10.19 Form of notice to executive officers and other employees regarding June 2, 2005, acceleration of performance unit bonus plan stock option vesting, including notice regarding restrictions imposed on their accelerated options (incorporated by reference to Exhibit 10.25 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.20.1 Employment Agreement dated as of September 12, 1995, between the company and Tony L. White (incorporated by reference to Exhibit 10(21) to our Annual Report on Form 10-K for the fiscal year ended June 30, 1995 (Commission file number 001-04389)).\*
- 10.20.2 Amendment dated August 17, 2001, to the Employment Agreement dated as of September 12, 1995, between the company and Tony L. White (incorporated by reference to Exhibit 10.14 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2001 (Commission file number 001-04389)).\*
- 10.20.3 Amendment dated August 28, 2006, to the Employment Agreement dated as of September 12, 1995, between the company and Tony L. White (incorporated by reference to Exhibit 10.4 to our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2006 (Commission file number 001-04389)).\*
- 10.20.4 Transition Services Agreement dated as of June 11, 2008, between the company and Tony L. White.\*
- 10.21 Change of Control Agreement dated as of September 12, 1995, between the company and Tony L. White (incorporated by reference to Exhibit 10(16) to our Annual Report on Form 10-K for the fiscal year ended June 30, 1995 (Commission file number 001-04389)).\*
- 10.22 Employment Agreement dated as of November 16, 1995, between the company and William B. Sawch (incorporated by reference to Exhibit 10(16) to our Annual Report on Form 10-K for fiscal year ended June 30, 1998 (Commission file number 001-04389)).\*
- 10.23 Deferred Compensation Contract dated as of July 15, 1993, between the company and William B. Sawch (incorporated by reference to Exhibit 10(19) to our Annual Report on Form 10-K for the fiscal year ended June 30, 1998 (Commission file number 001-04389)).\*
- 10.24.1 Letter dated June 24, 1997, from the company to Dennis L. Winger (incorporated by reference to Exhibit 10(18) to our Annual Report on Form 10-K for the fiscal year ended June 30, 1998 (Commission file number 001-04389)).\*
- 10.24.2 Employment Agreement dated as of September 25, 1997, between the company and Dennis L. Winger (incorporated by reference to Exhibit 10(17) to our Annual Report on Form 10-K for the fiscal year ended June 30, 1998 (Commission file number 001-04389)).\*

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- 10.24.3 Letter dated August 21, 2003, from the company to Dennis L. Winger regarding the letter dated June 24, 1997, from the company to Dennis L. Winger (incorporated by reference to Exhibit 10.33 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2003 (Commission file number 001-04389)).\*
- 10.24.4 Letter dated August 28, 2006, from the company to Dennis L. Winger, supplementing employment letters from the company to Dennis L. Winger dated June 24, 1997, and August 21, 2003 (incorporated by reference to Exhibit 10.5 to our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2006 (Commission file number 001-04389)).\*
- 10.25 Employment Agreement dated as of December 1, 2000, between the company and Kathy P. Ordoñez (incorporated by reference to Exhibit 10.35 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2002 (Commission file number 001-04389)).\*
- 10.26 Employment Agreement dated as of September 5, 2000, between the company and Barbara J. Kerr (incorporated by reference to Exhibit 10.37 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.27 Employment Agreement dated as of December 2, 1996, between the company and Ugo D. DeBlasi (incorporated by reference to Exhibit 10.38 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission file number 001-04389)).\*
- 10.28 Employment offer letter to Joel R. Jung dated January 13, 2006 (incorporated by reference to Exhibit 10.41 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2006 (Commission file number 001-04389)).\*
- 10.29 Executive Perquisites Policy provisions applicable to members of the company's Management Executive Committee, including named executive officers as such term is defined by SEC rules (incorporated by reference to Exhibit 10.29 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2007 (Commission file number 001-04389)).\*
- 10.30.1 Employment Agreement dated as of September 1, 2007, between the company and Mark P. Stevenson (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2007 (Commission file no. 001-04389)).\*
- 10.30.2 Amendment No. 1 to Employment Agreement between the company and Mark P. Stevenson dated as of June 11, 2008.\*
- 10.31 Executive Severance Pay Policy.\*
- 10.32.1 Celera Diagnostics Joint Venture Agreement dated as of April 1, 2001, among the company, its Applied Biosystems Group, its Celera Group, Foster City Holdings, LLC, and Rockville Holdings, LLC (incorporated by reference to Exhibit 10.36 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2002 (Commission file number 001-04389)).
- 10.32.2 Amendment, dated as of June 22, 2004, to Celera Diagnostics Joint Venture Agreement dated as of April 1, 2001, among the company, its Applied Biosystems Group, its Celera Group, Foster City Holdings, LLC, and Rockville Holdings, LLC (incorporated by reference to Exhibit 10.34 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2004 (Commission file no. 001-04389)).
- 10.32.3 Celera Diagnostics Reorganization Agreement dated as of April 22, 2006, and effective as of January 1, 2006, among the company, its Applied Biosystems group, its Celera group, Foster City Holdings, LLC, and Rockville Holdings, LLC (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2006 (Commission file no. 001-04389)).
- 10.33.1 Celera/Applied Biosystems Marketing and Distribution Agreement dated as of February 27, 2003, and effective as of April 1, 2002, among the company, its Applied Biosystems group, and its Celera group (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2003 (Commission file no. 001-04389)).

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|         |   |
|---------|---|
| 10.33.2 | Amended and Restated Celera/Applied Biosystems Marketing and Distribution Agreement dated as of June 22, 2004 among the company, its Applied Biosystems group, and its Celera group (incorporated by reference to Exhibit 10.36 to our Annual Report on Form 10-K for the fiscal year ended June 30, 2004 (Commission file no. 001-04389)).       |
| 10.33.3 | Amendment, dated as of February 4, 2005, to Celera/Applied Biosystems Marketing and Distribution Agreement among the company, its Applied Biosystems group, and its Celera group (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2004 (Commission file no. 001-04389)). |
| 10.34   | Restated Strategic Alliance Agreement, effective as of January 9, 2006, among the company, Celera Diagnostics, LLC, and Abbott Laboratories (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2006 (Commission file no. 001-04389)).**                                       |
| 10.35   | Letter Agreement regarding Fixed Dollar Collar Accelerated Share Repurchase Transaction dated August 30, 2007, between the company and Morgan Stanley & Co. Incorporated (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2007 (Commission file no. 001-04389)).        |
| 10.36.1 | Separation Agreement dated as of May 8, 2008, by and between the company and Celera Corporation (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated May 8, 2008, and filed May 12, 2008 (Commission file number 001-04389)).   |
| 10.36.2 | Tax Matters Agreement dated as of July 1, 2008, among the company, Celera Corporation, and their affiliates specified therein.  |
| 10.36.3 | Operating Agreement dated as of July 1, 2008, between the company and Celera Corporation.***  |
| 11      | Computation of Net Income (Loss) per Share for the three years ended June 30, 2008 (incorporated by reference to Note 1 to Consolidated Financial Statements of Annual Report to Stockholders for the fiscal year ended June 30, 2008).   |
| 13      | Annual Report to Stockholders for the fiscal year ended June 30, 2008 (to the extent incorporated herein by reference).   |
| 21      | List of Subsidiaries.   |
| 23      | Consent of Independent Registered Public Accounting Firm.   |
| 31.1    | Certification of Principal Executive Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.   |
| 31.2    | Certification of Principal Financial Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.   |
| 32.1    | Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.  |
| 32.2    | Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.  |

\* Management contract or compensatory plan or arrangement.

\*\* Portions of this exhibit, as filed in the referenced Quarterly Report, were omitted and filed separately with the Securities and Exchange Commission pursuant to a confidential treatment request under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

\*\*\* Portions of this exhibit have been omitted and filed separately with the Securities and Exchange Commission pursuant to a confidential treatment request under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

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**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) 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.

APPLIED BIOSYSTEMS INC.

By /s/ William B. Sawch  
William B. Sawch  
Senior Vice President and General Counsel

Date: August 27, 2008

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

/s/ Tony L. White August 27, 2008  
Tony L. White  
Chairman of the Board of Directors and Chief Executive  
Officer  
(Principal Executive Officer)

/s/ Dennis L. Winger August 27, 2008  
Dennis L. Winger  
Senior Vice President and Chief Financial Officer  
(Principal Financial Officer)

/s/ Ugo D. DeBlasi August 27, 2008  
Ugo D. DeBlasi  
Vice President and Controller  
(Principal Accounting Officer)

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|  |                 |
|--|-----------------|
| /s/ George F. Adam, Jr.<br>George F. Adam, Jr.<br>Director   | August 27, 2008 |
| /s/ Robert H. Hayes<br>Robert H. Hayes<br>Director           | August 27, 2008 |
| /s/ Arnold J. Levine<br>Arnold J. Levine<br>Director         | August 27, 2008 |
| /s/ William H. Longfield<br>William H. Longfield<br>Director | August 27, 2008 |
| /s/ Elaine R. Mardis<br>Elaine R. Mardis<br>Director         | August 27, 2008 |
| /s/ Theodore E. Martin<br>Theodore E. Martin<br>Director     | August 27, 2008 |
| /s/ Carolyn W. Slayman<br>Carolyn W. Slayman<br>Director     | August 27, 2008 |
| /s/ James R. Tobin<br>James R. Tobin<br>Director             | August 27, 2008 |

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM  
ON FINANCIAL STATEMENT SCHEDULE**

To the Board of Directors and Stockholders

of Applied Biosystems Inc. (formerly known as Applera Corporation)

Our audits of the consolidated financial statements and of the effectiveness of internal control over financial reporting referred to in our report dated August 27, 2008 appearing in the 2008 Annual Report to Stockholders of Applied Biosystems Inc. (which report and consolidated financial statements are incorporated by reference in this Annual Report on Form 10-K) also included an audit of the financial statement schedule listed in Item 15 of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP  
Stamford, Connecticut  
August 27, 2008



**Table of Contents****SCHEDULE II****APPLIED BIOSYSTEMS INC.****VALUATION AND QUALIFYING ACCOUNTS AND RESERVES****FOR THE FISCAL YEARS ENDED JUNE 30, 2006, 2007, AND 2008**

(Amounts in thousands)

|   | <b>Balance For<br/>Doubtful Accounts</b> |
|---|--|
| Balance at June 30, 2005  | \$ 7,025                                 |
| Charged to income in fiscal year 2006                             | 1,857                                    |
| Deductions from reserve in fiscal year 2006                       | (1,244)                                  |
| Balance at June 30, 2006  | 7,638                                    |
| Charged to income in fiscal year 2007                             | 492                                      |
| Deductions from reserve in fiscal year 2007                       | (708)                                    |
| Balance at June 30, 2007 (1)                                      | 7,422                                    |
| Balance acquired from Berkeley HeartLab, Inc. in fiscal year 2008 | 5,661                                    |
| Charged to income in fiscal year 2008                             | 13,458                                   |
| Deductions from reserve in fiscal year 2008                       | (10,613)                                 |
| Balance at June 30, 2008 (1)                                      | \$ 15,928                                |

(1) Deducted in the Consolidated Statements of Financial Position from accounts receivable.

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**EXHIBIT INDEX**

**Number**

- 10.20.4 Transition Services Agreement dated as of June 11, 2008, between the company and Tony L. White.
- 10.30.2 Amendment No. 1 to Employment Agreement between the company and Mark P. Stevenson dated as of June 11, 2008.
- 10.31 Executive Severance Pay Policy.
- 10.36.2 Tax Matters Agreement dated as of July 1, 2008, among the company, Celera Corporation, and their affiliates specified therein.
- 10.36.3 Operating Agreement dated as of July 1, 2008, between the company and Celera Corporation.\*\*\*
- 13 Annual Report to Stockholders for the fiscal year ended June 30, 2008 (to the extent incorporated herein by reference).
- 21 List of Subsidiaries.
- 23 Consent of Independent Registered Public Accounting Firm.
- 31.1 Certification of Principal Executive Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Principal Financial Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

\*\*\* Portions of this exhibit have been omitted and filed separately with the Securities and Exchange Commission pursuant to a confidential treatment request under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.