Life Technologies Corp Form S-3ASR October 12, 2010

Registration No. 333-

As filed with the Securities and Exchange Commission on October 12, 2010

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

Form S-3
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

LIFE TECHNOLOGIES CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization) 33-0373077 (I.R.S. Employer Identification Number)

5791 Van Allen Way Carlsbad, California 92008 (760) 603-7200

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

John A. Cottingham, Esq.
Chief Legal Officer and Secretary
Life Technologies Corporation
5791 Van Allen Way
Carlsbad, California 92008
(760) 603-7200

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copy to:

Thomas A. Wuchenich Simpson Thacher & Bartlett LLP 1999 Avenue of the Stars, 29th Floor Los Angeles, California 90067 (310) 407-7505

David L. Szekeres

Head Counsel, M&A, Governance & Securities and Assistant Secretary
Life Technologies Corporation
5791 Van Allen Way
Carlsbad, California 92008
(760) 603-7200

Approximate date of commencement of proposed sale to the public:

From time to time after the effective date of this Registration Statement.

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

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

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. b

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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. (Check one):

Large accelerated filer b Accelerated filer o Non-accelerated filer o Smaller reporting company o

(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

		Proposed maximum	Proposed Maximum	
	Amount to be	offering price	Aggregate Offering	Amount of
Title of each class of securities to be registered	registered(1)(2)	per share(3)	Price(4)	Registration Fee(5)
Common stock, par value \$0.01 per share(6)	6,572,776 shares	\$46.90	\$308,263,194	\$21,980

(1) Pursuant to
Rule 416 of the
Securities Act of
1933, as
amended, this
registration
statement also
registers such
additional shares
of the Registrant s
common stock as
may become
issuable to
prevent dilution
as a result of

stock splits, stock dividends or similar transactions.

(2) The amount to be registered includes 3,017,043 shares of our common stock issued to each selling stockholder on October 1, 2010 in connection with the closing of our acquisition of Ion Torrent **Systems** Incorporated and 3,555,733 shares that may be issued to such selling stockholder in accordance with the Merger Agreement upon the occurrence of certain technical and time-based milestones through 2012. All shares to be issued in connection with such milestones will be valued based upon the 30-day volume-weighted average price of a share of our common stock on the NASDAO Global Select Market on the respective occurrence date for each such

milestone. In

order to ensure that we register all of the shares that we are obligated to register under the Merger Agreement, we have conservatively assumed a 30-day volume- weighted average price of \$35.00 per share for the purpose of determining the number of shares to be registered that are to be issued in connection with these milestones.

- (3) Based upon the average of the high and low prices reported for the Registrant s common stock on the NASDAQ Global Select Market on October 7, 2010.
- (4) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended.
- (5) In accordance with Rules 456(b) and 457(r) under the Securities Act, the Registrant is

deferring payment of the registration fee relating to up to 3,555,733 of the shares of common stock registered hereby which may be issued to the selling stockholders named in this registration statement pursuant to potential payments if certain milestones are met with respect to the acquisition. These shares represent the maximum number that may be included in one or more prospectus supplements that the Registrant may file from time to time, and the filing fee(s) with respect to such shares will be paid by the Registrant at the time such prospectus supplement(s), if any, are filed.

(6) This registration statement also covers the Preferred Stock Purchase Rights, \$0.01 par value, issuable in accordance with the Rights Agreement, dated

February 27, 2001, between Invitrogen Corporation and Fleet National Bank Rights Agent, as Rights Agent, which are presently attached to and trade with our common stock.

PROSPECTUS

6,572,776 Shares

LIFE TECHNOLOGIES CORPORATION

Common Stock

This prospectus relates to 6,572,776 shares of our common stock which may be sold from time to time by the selling stockholders named herein. The shares of our common stock offered under this prospectus by the selling stockholders were issued (or may be issued) to the selling stockholders by us in connection with our acquisition of Ion Torrent Systems Incorporated, as further described in this prospectus under the heading Selling Stockholders.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares of our common stock by the selling stockholders.

The selling stockholders, including their respective donees, pledgees, transferees or other successors-in-interest, may sell the common stock being offered by this prospectus from time to time on terms to be determined at the time of sale through ordinary brokerage transactions or through any other means described in this prospectus under Plan of Distribution. The selling stockholders, including their respective donees, pledgees, transferees or other successors-in-interest, may sell the shares in negotiated transactions or otherwise, at the prevailing market price for the shares or at negotiated prices. We will not be paying any underwriting discounts or commissions in this offering.

Our common stock is traded on the NASDAQ Global Select Market under the symbol LIFE.

Investing in our securities involves a high degree of risk. You should carefully consider the risks described under Risk Factors in Item 1A of our most recent Annual Report on Form 10-K and Item 1A of each subsequently filed Quarterly Report on Form 10-Q (which documents are incorporated by reference herein), as well as the other information contained or incorporated by reference in this prospectus or in any prospectus supplement hereto before making a decision to invest in our securities. See Incorporation by Reference and Where You Can Find More Information in this prospectus.

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

The date of this prospectus is October 12, 2010.

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We have not, and the selling stockholders have not, authorized anyone to give any information or to make any representation other than those contained or incorporated by reference in this prospectus or any applicable prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any applicable prospectus supplement. The selling stockholders are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where it is lawful to do so. This prospectus or any applicable prospectus supplement does not constitute an offer to sell or the solicitation of an offer to buy any shares other than the registered shares to which they relate, nor does this prospectus or any applicable prospectus supplement constitute an offer to sell or the solicitation of an offer to buy shares in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus or any applicable prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus or any applicable prospectus supplement is delivered or shares are sold on a later date.

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, statements regarding future financial results and performance, potential sales revenue, legal contingencies and tax benefits, and the existence of adverse litigation and other risks, uncertainties and factors. You can identify these forward-looking statements by the use of words such as outlook , believes , expects , potential , continues , will , should , seeks , approximately , predicts , intends , plans , estimates , anticipates or the negative verwords or other comparable words.

These statements are subject to various risks, and uncertainties, many of which are outside our control, including the level of market demand for our services, competitive pressures, our ability to achieve reductions in operating costs and to continue to integrate acquired businesses into our operations, general economic and business conditions, industry trends, our funding requirements, the application of federal and state tax laws and regulations, and other specific factors discussed herein or set forth under Risk Factors in Item 1A of our most recent Annual Report on Form 10-K and Item 1A of each subsequently filed Quarterly Report on Form 10-Q or Annual Report on Form 10-K (which documents are incorporated by reference herein), as well as the other information contained or incorporated by reference in this prospectus or in any prospectus supplement hereto.

We believe that all forward-looking statements are based on reasonable assumptions when made; however, we caution that it is impossible to predict actual results or outcomes or the effects of risks, uncertainties or other factors on anticipated results or outcomes and that, accordingly, one should not place undue reliance on these statements. Forward-looking statements speak only as of the date they were made, and we undertake no obligation to update these statements in light of subsequent events or developments. Actual results may differ materially from anticipated results or outcomes discussed in any forward-looking statement.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, utilizing a shelf registration process. Under this shelf registration process, the selling stockholders may from time to time sell the shares of common stock described in this prospectus in one or more offerings. We will not receive any of the proceeds from these sales. We have agreed to pay the expenses incurred in registering these shares, including legal and accounting fees.

Brokers or dealers should confirm the existence of an exemption from registration or effect a registration in connection with any offer and sale of these shares.

Unless otherwise stated or the context otherwise indicates, references to the Company, we, our and similar references refer to Life Technologies Corporation and its subsidiaries.

You should read this prospectus together with the information incorporated by reference herein and the additional information described under the heading Where You Can Find More Information.

INCORPORATION BY REFERENCE

The SEC s rules allow us to incorporate by reference information into this prospectus. This means that we can disclose important information to you by referring you to another document. Any information referred to in this way is considered part of this prospectus from the date we file that document. Any reports filed by us with the SEC after the date of the initial registration statement and prior to effectiveness of the registration statement and any reports filed by us with the SEC after the date of this prospectus and before the date that the offerings of the shares of common stock by means of this prospectus are terminated will automatically update and, where applicable, supersede any information contained in this prospectus or incorporated by reference in this prospectus.

We incorporate by reference into this prospectus the following documents or information filed with the SEC:

- 1. our Annual Report on Form 10 K for the year ended December 31, 2009 (including the portions of our Proxy Statement on Schedule 14A for our 2010 annual meeting of stockholders filed with the SEC on March 19, 2010 that are incorporated by reference therein) (File No. 000 25317);
- 2. our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2010 and June 30, 2010 (File No. 000 25317);
- 3. our Current Reports on Form 8 K, filed on January 22, 2010, January 27, 2010, January 28, 2010, January 29, 2010, February 5, 2010, February 10, 2010, February 17, 2010, February 19, 2010, May 3, 2010, June 1, 2010, June 30, 2010, July 7, 2010 and August 17, 2010 (File No. 000 25317);
- 4. the description of our common stock and preferred stock purchase rights contained in our registration statement on Form 8-A filed under the Exchange Act, including any amendment or report filed for the purpose of updating such description;
- 5. other documents we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of this offering;
- 6. the audited consolidated statement of operations of Applied Biosystems Inc. for the fiscal years ending June 30, 2008 and June 30, 2007, consolidated statements of financial position at June 30, 2008 and 2007, consolidated statements of stockholders equity, for the fiscal years ended June 30, 2008 and 2007, the related notes thereto, management s assessment of the effectiveness of internal control over financial reporting (which is included in

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Management Report on Internal Controls over Financial Reporting), and the independent registered public accounting firm s report related thereto included in Applied Biosystems Inc. s Annual Report on Form 10-K for the year ended June 30, 2008, filed on August 27, 2008; and

7. the unaudited condensed consolidated statements of operations for the three months ended September 30, 2008 and 2007, condensed consolidated statements of financial position at September 30, 2008 and June 30, 2008, condensed consolidated statements of cash flows for the three months ended September 30, 2008 and 2007 and the related notes thereto of Applied Biosystems Inc. included in Applied Biosystems Inc. s Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, filed on November 6, 2008.

To the extent that any information contained in any current report on Form 8-K or any exhibit thereto, was furnished, rather than filed with the SEC, such information or exhibit is specifically not incorporated by reference in this prospectus.

This prospectus is part of a registration statement on Form S-3 that we have filed with the Commission under the Securities Act. The rules and regulations of the Commission allow us to omit from this prospectus certain information included in the registration statement. For further information about us and our securities, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus regarding the contents of any agreement or any other document included as an exhibit hereto or incorporated by reference herein, in each instance, the statement is qualified in all respects by the complete text of the agreement or document.

These documents may also be accessed on our website at *www.lifetechnologies.com*. Except as otherwise specifically incorporated by reference in this prospectus, information contained in, or accessible through, our website is not a part of this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from Life Technologies Corporation, at 5791 Van Allen Way, Carlsbad, California 92008. You also may contact us at (760) 603-7200.

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere or incorporated by reference into this prospectus. Because it is a summary, it does not contain all of the information that you should consider before investing in our securities. You should read this entire prospectus carefully, including the section entitled Risk Factors and the documents that we incorporate by reference into this prospectus, before making an investment decision.

LIFE TECHNOLOGIES CORPORATION

Overview

Life Technologies Corporation is a global biotechnology tools company dedicated to helping our customers make scientific discoveries and ultimately improve the quality of life. Our systems, reagents, and services enable researchers to accelerate scientific exploration, driving to discoveries and developments that make life better. Life Technologies customers do their work across the biological spectrum, working to advance genomic medicine, regenerative science, molecular diagnostics, agricultural and environmental research, and 21st century forensics. In 2009, the Company had sales of approximately \$3.3 billion, employed 9,000 people, had a presence in more than 160 countries, and possessed a rapidly growing intellectual property estate of over 3,900 patents and exclusive licenses.

Our systems and reagents, enable, simplify and improve a broad spectrum of biological research of genes, proteins and cells within academic and life science research and commercial applications. Our scientific know-how is making biodiscovery research techniques more effective and efficient to pharmaceutical, biotechnology, agricultural, government and academic researchers with backgrounds in a wide range of scientific disciplines.

We operate our business under three divisions: Molecular Biology Systems, Genetic Systems and Cell Systems. Our objective is to provide essential life science technologies for basic research, drug discovery, and development of diagnostic and commercial applications. The principal markets for our products include the life sciences research market and the biopharmaceutical production market.

Our common stock is publicly traded on the NASDAQ Global Select Market under the symbol LIFE.

We began operations as a California partnership in 1987 and incorporated in California in 1989. In 1997, we reincorporated as a Delaware corporation. Our principal offices are located at 5791 Van Allen Way in Carlsbad, California 92008 and our phone number is (760) 603-7200. Our website address is http://www.lifetechnologies.com. The information on, or accessible through, our website is not part of this prospectus.

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THE OFFERING

Issuer Life Technologies Corporation

Selling Stockholders Accredited investors who were issued shares of our common stock in a

private placement in October 2010 in connection with our acquisition of Ion Torrent Systems Incorporated and may receive additional shares of our common stock pursuant to the terms of a post-closing provisions contained in the Agreement and Plan of Merger with respect to the occurrence of

certain milestones.

Securities offered by Selling

Stockholders

Up to 6,572,776 shares of our common stock.

Use of proceeds We will not receive any proceeds from sales of the shares of common stock

sold from time to time under this prospectus by the selling stockholders.

NASDAQ Global Select Market

Symbol

LIFE

Risk factors Investing in our common stock involves a high degree of risk. See Risk

Factors on page 7 of this prospectus, Risk Factors in Item 1A of our most recent Annual Report on Form 10-K and Item 1A of each subsequently filed Quarterly Report on Form 10-Q or Annual Report on Form 10-K (which

documents are incorporated by reference herein).

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RISK FACTORS

Investing in our common stock involves a high degree of risk. You should review the risks described under Risk Factors in Item 1A of our most recent Annual Report on Form 10-K and Item 1A of each subsequently filed Quarterly Report on Form 10-Q or Annual Report on Form 10-K (which documents are incorporated by reference herein), as well as the other information contained or incorporated by reference in this prospectus or in any prospectus supplement hereto before making a decision to invest in our common stock. These risks could materially affect our business, results of operations or financial condition and cause the value of our common stock to decline. You could lose all or part of your investment. See Incorporation by Reference and Where You Can Find More Information in this prospectus.

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USE OF PROCEEDS

All of the shares of common stock being offered hereby are being sold by the selling stockholders identified in this prospectus, their pledgees, donees, transferees or other successors in interest. We will not receive any proceeds from the sale of the shares of our common stock offered by this prospectus. The selling stockholders will receive all of the net proceeds from this offering. See Selling Stockholders.

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SELLING STOCKHOLDERS

This prospectus relates to the resale of up to 6,572,776 shares of our common stock held by or that may be issued to the selling stockholders listed below. Of these shares of our common stock, 3,017,043 were issued in connection with the closing of our acquisition of Ion Torrent Systems Incorporated, or Ion Torrent, pursuant to the Agreement and Plan of Merger between us, Ion Torrent, Iguana Acquisition Sub, Inc., Iguana Merger Sub, Corp., Michael Rothberg as Sellers Representative and the securityholders party thereto, dated as of August 17, 2010, which we refer to as the Merger Agreement.

Upon the completion of the acquisition on October 1, 2010, and pursuant to the Merger Agreement, Iguana Acquisition Sub, Inc. merged with and into Ion Torrent, followed by the merger of Ion Torrent with and into Iguana Merger Sub, Corp., a Delaware corporation and a wholly-owned subsidiary of our company, through which Ion Torrent became a wholly-owned subsidiary of our company. The selling stockholders named in the table below, who are accredited former stockholders of Ion Torrent, received or may receive the shares of our common stock offered hereby as consideration for their holdings in Ion Torrent. Pursuant to the terms of the Merger Agreement, the selling stockholders could elect to receive their respective merger consideration in the form of all cash, all stock, or a combination of cash and stock; provided that the proportion of the aggregate merger consideration paid to such stockholders shall be 60% in cash and 40% in shares of our common stock. As described below, all or a portion of the remaining 3,555,733 shares of our common stock to which this prospectus relates may be issued to such former stockholders of Ion Torrent if certain milestones contained in the Merger Agreement occur.

Pursuant to the Merger Agreement, the selling stockholders are entitled to additional consideration of \$350 million in cash and stock upon the occurrence of certain technical and time-based milestones through 2012. Such additional shares of our common stock and cash will be in the proportion determined in accordance with the election made by such selling stockholder and pursuant to the terms of the Merger Agreement.

All shares issued in connection with the initial closing of the acquisition were valued based upon the 30 day volume-weighted average price of a share of our common stock on the NASDAQ Global Select Market one business day prior to the closing date, which was \$46.93. All shares to be issued in connection with the milestones will be valued based upon the 30 day volume-weighted average price of a share of our common stock on the NASDAQ Global Select Market on the respective occurrence date for each milestone.

The Registration Statement of which this prospectus is a part has been filed pursuant to registration rights granted to the selling stockholders as part of the acquisition. Pursuant to the Merger Agreement, we agreed to keep the registration statement continuously effective until the earlier of (a) such time as all such shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (b) the date on which the shares may be sold pursuant to Rule 144 of the Securities Act of 1933, as amended, or the Securities Act, without volume or manner of sale restrictions.

The following table sets forth information with respect to the selling stockholders and the shares of our common stock issued to each selling stockholder on October 1, 2010 in connection with the closing of our acquisition of Ion Torrent and the shares that may be issued to such selling stockholder in accordance with the Merger Agreement upon the occurrence of certain technical and time-based milestones through 2012, that may from time to time be offered or sold pursuant to this prospectus. The selling stockholders may offer all, some or none of their shares of common stock. We cannot advise you as to whether selling stockholders will, in fact, sell any or all of such shares of common stock. In addition, the selling stockholders listed in the table below may have sold, transferred or otherwise disposed of, or may sell, transfer or otherwise dispose of, at any time and from time to time, shares of our common stock in transactions exempt from the registration requirements of the Securities Act after the date on which they provided the information set forth on the table below. Changes in the information concerning the selling stockholders, including as a result of the making of the making of any milestone payments pursuant to the Merger Agreement, will be set forth in supplements to this prospectus when and if necessary. As of August 4, 2010, there were 183,322,075 shares of our common stock outstanding.

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			Maximum Number of	
	Number of		Shares Bein	~
	Benefic	ially	Offered	Beneficially Owned
	Owned Bef	fore the	Hereby ⁽¹⁾	After the
	Offerin	_		Offering ⁽²⁾
Name of Selling Stockholder	Number	Percent ⁽³⁾	Number	Numbarcent ⁽³⁾
2009 Walcott Family Trust ⁽⁴⁾	32,053	*	32,053	*
Acadia Woods Partners, LLC ⁽⁵⁾	433,630	*	433,630	*
aeris CAPITAL Equity Investments L.P. ⁽⁶⁾	425,236	*	425,236	*
Alexandria Equities, LLC ⁽⁷⁾	4,251	*	4,251	*
ANMA Venture GmbH ⁽⁸⁾	31,891	*	31,891	*
Arthur J. Samberg	36,135	*	36,135	*
Bay City Capital Fund V Co-Investment Fund, L.P. ⁽⁹⁾	23,974	*	23,974	*
Bay City Capital Fund V, L.P. (10)	1,258,171	*	1,258,171	*
CBI GmbH ⁽¹¹⁾	31,892	*	31,892	*
CD-Venture ⁽¹²⁾	42,523	*	42,523	*
CRM I, LLC ⁽¹³⁾	64,106	*	64,106	*
Grossman Family Trust ⁽¹⁴⁾	32,053	*	32,053	*
Ian Ratcliffe	596	*	596	*
Jonathan M. Rothberg ⁽¹⁵⁾	1,169,673	*	1,169,673	*
Jonathan M. Rothberg Children s Trust ⁶	223,504	*	223,504	*
Kim Johnson	3,650		3,650	*
Medlock Investments, LLC ⁽¹⁷⁾	105,048	*	105,048	*
Michael J. Rothberg	249,033		249,033	
Mintz Levin Investments L.L.C. (18)	8,868	*	8,868	*
Musea Ventures LP ⁽¹⁹⁾	10,630		10,630	*
PB Invest GmbH ⁽²⁰⁾	19,175		19,175	*
PFM Healthcare Fund, LP ⁽²¹⁾	392,814		392,814	*
PFM Healthcare Offshore Fund, Ltd. (22)	72,267	*	72,267	*
PFM Healthcare Principals Fund, LP ⁽²³⁾	30,358	*	30,358	*
Rothberg Family Fund I, LLC ⁽²⁴⁾	1,704,403		1,704,403	*
The Board of Trustees of the Leland Stanford Junior University ⁽²⁵⁾	106,308	*	106,308	*
The Jeffrey S. Samberg Amended and Restated Revocable Trust ⁽²⁶⁾	54,203	*	54,203	*
Wolf, Greenfield & Sacks Investment Trust, LLC ⁽²⁷⁾	4,630		4,630	*
WS Investment Company LLC (2009A) ⁽²⁸⁾	1,489		1,489	*
WS Investment Company LLC (2009C) ⁽²⁹⁾	212		212	*
Total	6,572,776	*	6,572,776	*

^{*} Represents less than 1% of the total aggregate amount of shares of common stock

outstanding as of August 4, 2010.

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(1) The amounts set forth in this table include shares issued to each selling stockholder on October 1, 2010 in connection with the closing of our acquisition of Ion Torrent and the shares that may be issued to such selling stockholder in accordance with the Merger Agreement upon the occurrence of certain technical and time-based milestones through 2012. All shares to be issued in connection with such milestones will be valued based upon the 30-day volume-weighted average price of a share of our common stock on the NASDAQ Global Select Market on the respective occurrence date for each such milestone. In order to ensure that we register all of the shares that we are obligated to register under the Merger

Agreement, we have conservatively assumed a 30-day volume-weighted average price of \$35.00 per share for the purpose of determining the number of shares included in this table that are to be issued in connection with these milestones.

- (2) For purposes of this table only we have assumed that the selling stockholders will sell all of the shares of our common stock offered by this prospectus.
- (3) Calculated based on 183,322,075 shares of our common stock outstanding as of August 4, 2010.
- (4) John Michael
 Walcott, as
 Trustee for the
 2009 Walcott
 Family Trust,
 exercises
 dispositive power
 over the shares of
 common stock
 being registered
 for resale in this
 prospectus.
- (5) Jeffrey Samberg, as Managing Member of Acadia Woods

Partners, LLC, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(6) BARDEEN

Management Company S.A. on behalf of **BARDEEN** (Luxembourg registered Investment Fund) (BARDEEN) is the principal limited partner of aeris CAPITAL Equity Investments L.P. Lothar Rafalski, Achim Welschoff and Uwe Feuersenger, each as Directors of BARDEEN and Bernd Kammerlander, as

(7) Joel S. Marcus, as Chief Executive Officer and Dean A. Shigenada, as Chief Financial Officer, of Alexandria Equities, LLC, exercise dispositive power

over the shares of

Delegate of BARDEEN, together exercise dispositive power over the shares being registered for resale in this prospectus.

common stock being registered for resale in this prospectus.

(8) Dr. Mathias Boehringer and Dr. Ramon Antonio Payano Baez, as Managing Directors of ANMA Venture GmbH, exercise dispositive power over the shares of common stock being registered for resale in this prospectus.

(9) Bay City Capital Management V, LLC, is the General Partner (the Bay City GP) of Bay City Capital Fund V Co-Investment Fund, L.P. Fred B. Craves and Carl Goldfischer, as Managing Directors of Bay City GP, exercise dispositive power over the shares of common stock being registered for resale in this prospectus.

(10) The Bay City GP is the General Partner of Bay City Capital Fund V, L.P. Fred B. Craves and Carl Goldfischer, as Managing Directors of Bay

City GP exercise dispositive power over the shares of common stock being registered for resale in this prospectus.

(11) Christian Boehringer, as Managing Director of CBI GmbH, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(12) Christoph
Boehringer and
Dirk Wilken, as
Managing
Directors of
CD-Venture,
exercise
dispositive power
over the shares of
common stock
being registered
for resale in this
prospectus

(13) Kurt Bechtold and Walter Dewey, as Managers of CRM I, LLC exercise dispositive power over the shares of common stock being registered for resale in this prospectus.

(14) Brian D.Grossman, asTrustee for theGrossman Family

Trust, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(15) Jonathan M. Rothberg was the founder, Chief Executive Officer and Chairman of Ion Torrent and, as of October 1, 2010, is currently employed by Life Technologies Corporation or one of its wholly-owned subsidiaries.

(16) Michael J. Rothberg, as Trustee for the Jonathan M. Rothberg Children s Trust, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(17) Christopher M. James, as Manager of Medlock Investments, LLC, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(18)

Jeffrey M.
Wiesen and Irwin
M. Heller, as
Managers of
Mintz Levin
Investments
L.L.C., exercise
dispositive power
over the shares of
common stock
being registered
for resale in this
prospectus.

(19) Talli Somekh, as General Partner of Musea Ventures LP, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(20) Phillip Boehringer, as Managing Director of PB Invest GmbH, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(21) Brian D. Grossman, as Portfolio Manager of PFM Healthcare Fund, LP, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(22) Brian D. Grossman, as Portfolio Manager of PFM Healthcare Offshore Fund, Ltd., exercises dispositive power over the shares of common stock being registered

for resale in this prospectus.

(23) Brian D. Grossman, as Portfolio Manager of PFM Healthcare Principals Fund, LP, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(24) Michael J. Rothberg, as General Partner of Rothberg Family Fund I, LLC, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(25) Martina S. Poquet, as Managing Director of The Board of Trustees of the Leland Stanford Junior University, exercises

dispositive power over the shares of common stock being registered for resale in this prospectus.

(26) Jeffrey S. Samberg, as Trustee of The Jeffrey S. Samberg Amended and Restated Revocable Trust, exercises dispositive power over the shares of common stock being registered for resale in this prospectus.

(27) Douglas Wolf,
Randy Pritzker
and George
Greenfield, as
Managers of
Wolf, Greenfield
& Sacks
Investment Trust,
LLC, exercise
dispositive power
over the shares of
common stock
being registered
for resale in this
prospectus.

(28) James A. Terranova, as Manager of WS Investment Company LLC (2009A), exercises dispositive power over the shares of common stock being registered for resale in this

prospectus.

(29) James A.

Terranova, as
Manager of WS
Investment
Company LLC
(2009C),
exercises
dispositive power
over the shares of
common stock
being registered
for resale in this

prospectus.

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Information above with respect to beneficial ownership has been furnished by each selling stockholder and we have not sought to verify such information. None of the selling stockholders nor any of their affiliates, officers, directors or principal equity holders has held any position or office or has had any material relationship with us or any of our predecessors or affiliates within the past three years.

The shares of our common stock offered pursuant to this prospectus were, or will be, issued to the selling stockholders in transactions that were, or will be, exempt from the registration requirements of the Securities Act.

The selling stockholders listed in the table above may offer and sell, pursuant to this prospectus, any or all of such shares of our common stock owned by them and offered hereby in accordance with one or more of the methods of distribution described under the caption Plan of Distribution.

For purposes of this prospectus, the term selling stockholders includes each selling stockholder listed above, and any partners, donees, pledgees, transferees or other successors-in-interest from time to time selling shares received from a named selling stockholder as a gift, pledge, partnership distribution or other non-sale transfer.

We will pay the expenses incurred to register the shares being offered by the selling stockholders for resale, but the selling stockholders will pay any underwriting discounts and brokerage commissions associated with these sales.

The fact that the selling stockholders have invested in and hold shares of our common stock is not to be construed as a representation or recommendation of any kind on the part of any selling shareholder as to the investment quality of the shares covered by this prospectus, nor does it imply in any way that any selling stockholder will assist in meeting any of our company s future financial requirements.

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PLAN OF DISTRIBUTION

The shares of common stock listed in the table appearing in the Selling Stockholders section of this prospectus are being registered to permit public secondary trading of these shares by the holders of such shares from time to time after the date of this prospectus. Registration of the shares of common stock covered by this prospectus does not mean, however, that those shares of common stock necessarily will be offered or sold. We will not receive any of the proceeds from the sale of the common stock by the selling stockholders. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholders, which as used herein include donees, pledgees, transferees or other successors in interest selling shares received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time offer and sell, transfer or otherwise dispose of any or all of their shares of common stock through underwriters or dealers, directly to purchasers (or a single purchaser) or through broker-dealers or agents. The common stock may be sold in one or more transactions at fixed prices, prevailing market prices at the time of sale, prices related to the prevailing market prices, varying prices determined at the time of sale or negotiated prices. Any such price may be changed from time to time. These prices will be determined by the selling stockholders or by agreement between the selling stockholders and underwriters, dealers or agents who may receive fees or commissions in connection with any such sale. The selling stockholders may dispose of the shares or interests therein by a variety of methods, including the following:

on any national securities exchange on which our common stock may be listed at the time of sale, including the NASDAQ Global Select Market;

in the over-the-counter market:

in transactions otherwise than on such exchange or in the over-the-counter market, which may include privately negotiated transactions and sales directly to one or more purchasers;

short sales;

through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise; or

in any combination of the above or by any other legally available means.

These transactions may include block transactions (in which a broker-dealer will attempt to sell a block of securities as agent but may position and resell a portion of the block as principal to facilitate the transaction) or crosses (in which the same broker-dealer acts as agent on both sides of the trade).

The selling stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus. The selling stockholders are not obligated to, and there is no assurance that the selling stockholders will, sell all or any of the shares we are registering. The selling stockholders may transfer, devise or gift such shares by other means not described in this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated.

Selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be underwriters within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by or any discounts or concessions allowed to such broker-dealers or agents, and any profit on the resale of the shares purchased by them, may be deemed to be underwriting commissions or discounts under the Securities Act. If underwriters are used in the sale of any securities, the securities will be acquired by the

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underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The securities may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. Generally, the underwriters—obligations to purchase the securities will be subject to certain conditions precedent. Generally, the underwriters will be obligated to purchase all of the securities if they purchase any of the securities (other than any securities purchased upon exercise of any over-allotment option).

The selling stockholders may sell the securities through agents from time to time. Generally, any agent will be acting on a best efforts basis for the period of its appointment. Any underwriters, broker-dealers and agents that participate in the distribution of the securities may be deemed to be underwriters as defined in the Securities Act. Any commissions paid or any discounts or concessions allowed to any such persons, and any profits they receive on resale of the securities, may be deemed to be underwriting discounts and commissions under the Securities Act.

In connection with the sale of the common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of the common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders may enter into derivative transactions or forward sale agreements on shares of common stock with third parties. In such event, the selling stockholders may pledge the shares underlying such transactions to the counterparties under such agreements, to secure the selling stockholders—delivery obligation. The counterparties or third parties may borrow shares of common stock from us, the selling stockholders or third parties and sell such shares in a public offering. This prospectus may be delivered in conjunction with such sales. Upon settlement of such transactions, the selling stockholders may deliver shares of common stock to the counterparties that, in turn, the counterparties may deliver to the selling stockholders or third parties, as the case may be, to close out the open borrowings of common stock. The counterparty in such transactions will be an underwriter and will be identified in the applicable prospectus supplement.

Underwriters or agents may purchase and sell the securities in the open market. These transactions may include over-allotment, stabilizing transactions, syndicate covering transactions and penalty bids. Over-allotment involves sales in excess of the offering size, which creates a short position. Stabilizing transactions consist of bids or purchases for the purpose of preventing or retarding a decline in the market price of the securities and are permitted so long as the stabilizing bids do not exceed a specified maximum. Syndicate covering transactions involve the placing of any bid on behalf of the underwriting syndicate or the effecting of any purchase to reduce a short position created in connection with the offering. The underwriters or agents also may impose a penalty bid, which permits them to reclaim selling concessions allowed to syndicate activities that may stabilize, maintain or otherwise affect the market price of the securities, which may be higher than the price that might otherwise prevail in the open market. These activities, if begun, may be discontinued at any time. These transactions may be effected on any exchange on which the securities are traded, in the over-the-counter market or otherwise.

In order to comply with the securities laws of some states, if applicable, the shares must be sold in those states only through registered or licensed brokers or dealers. In addition, some states may restrict the selling stockholders from selling shares unless the shares have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised the selling stockholders that they are required to comply with Regulation M promulgated under the Securities Exchange Act during such time as they may be engaged in a distribution of the shares. Regulation M may limit the timing of purchases and sales of shares of the common stock by the selling stockholders or any other person and may, therefore affect the marketability of the common stock.

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As of the date of this prospectus, the selling stockholders have not entered into any agreements, understandings or arrangements with any underwriters or broker/dealers regarding the sale of the shares of common stock covered by this prospectus. At any time a particular offer of the shares of common stock covered by this prospectus is made, a revised prospectus or prospectus supplement, if required, will set forth the aggregate amount of shares of common stock covered by this prospectus being offered and the terms of the offering, including the name or names of any underwriters, dealers, brokers or agents. In addition, to the extent required, any discounts, commissions, concessions and other items constituting underwriters or agents compensation, as well as any discounts, commissions or concessions allowed or reallowed or paid to dealers, will be set forth in such revised prospectus or prospectus supplement. Any such required prospectus supplement, and, if necessary, a post-effective amendment to the registration statement of which this prospectus is a part, will be filed with the SEC to reflect the disclosure of additional information with respect to the distribution of the shares of common stock covered by this prospectus.

A selling stockholder which is an entity may elect to make a pro rata in-kind distribution of the shares of common stock to its members, partners or shareholders. In such event we may file a prospectus supplement to the extent required by law in order to permit the distributees to use the prospectus to resell the common stock acquired in the distribution. A selling stockholder which is an individual may make gifts of shares of common stock covered hereby. Such donees may use the prospectus to resell the shares or, if required by law, we may file a prospectus supplement naming such donees.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement, or (2) the date on which the shares may be sold pursuant to Rule 144 of the Securities Act without volume or manner of sale restrictions.

We have agreed to indemnify the selling stockholders against certain civil liabilities, including certain liabilities arising under the Securities Act, and the selling stockholders will be entitled to contribution from us in connection with such liabilities.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Simpson Thacher & Bartlett LLP, Los Angeles, California.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2009, and the effectiveness of our internal control over financial reporting as of December 31, 2009, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and schedule are incorporated by reference in reliance on Ernst & Young LLP s report, given on their authority as experts in accounting and auditing.

The financial statements and management s assessment of the effectiveness of internal control over financial reporting (which is included in Management s Report on Internal Control over Financial Reporting) of Applied Biosystems Inc. incorporated in this prospectus by reference to Applied Biosystems, Inc. s Annual Report on Form 10-K for the year ended June 30, 2008 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC relating to the shares of common stock covered by this prospectus. This prospectus, filed as part of the registration statement, does not contain all of the

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information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us and our common stock, we refer you to the registration statement and to its exhibits. Statements in this prospectus about the contents of any contract, agreement or other document are not necessarily complete and, in each instance, we refer you to the copy of such contract, agreement or document filed as an exhibit to the registration statement, with each such statement being qualified in all respects by reference to the document to which it refers. Anyone may inspect the registration statement and its exhibits and schedules without charge at the SEC s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain copies of all or any part of these materials from the SEC upon the payment of certain fees prescribed by the SEC.

You may obtain further information about the operation of the SEC s Public Reference Room by calling the SEC at 1-800-SEC-0330. You may also inspect these reports and other information without charge at a website maintained by the SEC. The address of this site is http://www.sec.gov.

We are subject to the information requirements of the Exchange Act, and we are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. You may inspect and copy these reports, proxy statements and other information at the public reference facilities maintained by the SEC at the address noted above. You also are able to obtain copies of this material from the Public Reference Room of the SEC as described above, or inspect them without charge at the SEC s website. We make available free of charge on our website at *www.lifetechnologies.com*, under the Investor Relations SEC Filings section, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such material is electronically filed or furnished with the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act. The information on, or accessible through, our website is not part of this prospectus.

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PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following is an itemization of all fees and expenses incurred or expected to be incurred in connection with the sale and distribution of the securities being registered. All such expenses will be paid by the registrant and all but the SEC registration fee are estimates and remain subject to future contingencies.

Securities and Exchange Commission registration fee	\$21,979
Legal fees and expenses	\$30,000
Accounting fees and expenses	\$15,000
Printing fees and expenses	\$ 5,000
Total	\$71,979

Item 15. Indemnification of Directors and Officers

The registrant s Restated Certificate of Incorporation in effect as of the date hereof, or the Certificate of Incorporation, provides that, except to the extent prohibited by the Delaware General Corporation Law, as amended, or the DGCL, the registrant s directors shall not be personally liable to the registrant or its stockholders for monetary damages for any breach of fiduciary duty as directors of the registrant. Under the DGCL, the directors have a fiduciary duty to the registrant that is not eliminated by this provision of the Certificate of Incorporation and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available. In addition, each director will continue to be subject to liability under the DGCL for any breach of the director s duty of loyalty to the registrant or its stockholders, for acts or omissions not in good faith or that involve intentional misconduct, for knowing violations of law, for actions leading to improper personal benefit to the director and for payment of dividends or approval of stock repurchases or redemptions that are prohibited by the DGCL. This provision also does not affect the directors—responsibilities under any other laws, such as the federal securities laws or state or federal environmental laws.

The registrant s Fifth Amended and Restated Bylaws in effect as of the date hereof, or the Bylaws, also provides that, the registrant s directors and officers shall be held harmless to the fullest extent authorized by the DGCL against all expenses, liability and loss reasonably incurred or suffered. The registrant shall indemnify any director or officer seeking indemnity in connection with an action, suit or proceeding initiated by such director or officer only if such action, suit or proceeding was authorized by the board of directors of the registrant; provided, however, that if the DGCL then so requires, the payment of such expenses incurred by a director or officer of the registrant in his capacity as a director or officer in advance of the final disposition of such proceeding, shall be made only upon delivery to the registrant of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it should be determined ultimately that such director or officer is not entitled to be indemnified pursuant to the Bylaws. The Bylaws also provide, subject to certain conditions, that any indemnification extended to an officer or key employee pursuant to the Bylaws shall include a payment by the registrant or a subsidiary of the registrant of expenses as the same are incurred in defending a proceeding in advance of the final disposition of such proceeding upon receipt of an undertaking by such officer or key employee seeking indemnification to repay such payment if such officer or key employee shall be adjudicated or determined not to be entitled to indemnification under the Bylaws.

Section 145(b) of the Delaware Corporation Law provides, in general, that a corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of any other enterprise, against any expenses (including attorneys fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to

the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145(g) of the Delaware Corporation Law provides, in general, that a corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of any other enterprise, against any liability asserted against the person in any such capacity, or arising out of the person s status as such, regardless of whether the corporation would have the power to indemnify the person against such liability under the provisions of the law. Life Technologies has obtained liability insurance for the benefit of its directors and officers.

In addition, Life Technologies has entered into indemnification agreements with each of its executive officers and directors containing provisions that may require Life Technologies, among other things, to indemnify those officers and directors against liabilities that may arise by reason of their status or service as officers or directors. The agreements also provide for Life Technologies to advance to the officers and directors expenses that they expect to incur as a result of any proceeding against them as to which they could be indemnified. Life Technologies also intends to execute such agreements with its future directors and executive officers.

We carry insurance policies insuring our directors and officers against certain liabilities that they may incur in their capacity as directors and officers.

The foregoing is only a general summary of certain aspects of Delaware Corporation Law and Life Technologies Certificate of Incorporation and Bylaws dealing with indemnification of directors and officers, and does not purport to be complete. It is qualified in its entirety by reference to the detailed provisions of Section 145 of the Delaware Corporation Law and Life Technologies s Certificate of Incorporation and Bylaws.

Item 16. Exhibits

Reference is made to the Exhibit Index included herewith which is incorporated herein by reference.

Item 17. Undertakings

- 1. The undersigned Registrant hereby undertakes:
- (a) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(i), (a)(ii) and (a)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, that are incorporated

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by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (b) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and
- (c) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- 2. The undersigned Registrant hereby undertakes that, for purposes of determining liability under the Securities Act of 1933 to any purchaser each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- 3. The undersigned Registrant hereby undertakes that, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned Registrant undertakes that in a primary offering of securities of the Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (a) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;
- (b) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;
- (c) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the Registrant; and
 - (d) Any other communication that is an offer in the offering made by the Registrant to the purchaser.
- 4. The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant s annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan s annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- 5. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Carlsbad, State of California, on October 12, 2010.

LIFE TECHNOLOGIES CORPORATION

By: /s/ David L. Szekeres Name: David L. Szekeres Title: Assistant Secretary

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned directors and officers of the Registrant, a Delaware corporation, which is filing a Registration Statement on Form S-3 with the Securities and Exchange Commission, Washington, D.C. 20549 under the provisions of the Securities Act of 1933 hereby constitute and appoint John A. Cottingham and David L. Szekeres, and each or either of them (with full power to act alone), the individual s true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for the person and in his or her name, place and stead, in any and all capacities, to sign such registration statement and any or all amendments, including post-effective amendments to the registration statement, including a prospectus or an amended prospectus therein and any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and all other documents in connection therewith to be filed with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact as agents or any of them, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof. This power of attorney shall not revoke or in any way modify any power of attorney previously executed by the undersigned.

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

Signature	Title	Date
/s/ Gregory T. Lucier	Chairman and Chief Executive Officer and Director	October 12, 2010
Gregory T. Lucier	(Principal Executive Officer)	
/s/ David F. Hoffmeister	Chief Financial Officer (Principal Financial Officer)	October 12, 2010
David F. Hoffmeister	•	
/s/ Kelli A. Richard	Chief Accounting Officer (Principal Accounting Officer)	October 12, 2010
Kelli A. Richard		
/s/ George F. Adam, Jr.	Director	October 12, 2010
George F. Adam, Jr.		
/s/ Raymond V. Dittamore	Director	October 12, 2010
Raymond V. Dittamore		
/s/ Donald W. Grimm	Director	October 12, 2010
Donald W. Grimm		

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Signature	Title	Date
/s/ Balakrishnan S. Iyer	Director	October 12, 2010
Balakrishnan S. Iyer		
/s/ Arnold J. Levine, Ph.D.	Director	October 12, 2010
Arnold J. Levine, Ph.D.		
/s/ William H. Longfield	Director	October 12, 2010
William H. Longfield		
/s/ Bradley G. Lorimier	Director	October 12, 2010
Bradley G. Lorimier		
/s/ Ronald A. Matricaria	Director	October 12, 2010
Ronald A. Matricaria		
/s/ Per A. Peterson, Ph.D.	Director	October 12, 2010
Per A. Peterson, Ph.D.		
/s/ W. Ann Reynolds, Ph.D.	Director	October 12, 2010
W. Ann Reynolds, Ph.D.		
/s/ David C. U Prichard, Ph.D.	Director	October 12, 2010
David C. U Prichard, Ph.D.		

EXHIBIT INDEX

Exhibit Number	Document
4.1	Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 of the Registrant s Annual Report on Form 10-K for the year ended December 31, 2008 (File No. 000 25317)).
4.2	Fifth Amended and Restated By-laws of the Registrant (incorporated by reference to Exhibit 3.2 of the Registrant s Current Report on Form 8-K, filed on May 3, 2010 (File No. 000 25317)).
4.3	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 of the Registrant s Registration Statement on Form S-1 (File No. 333-68665)).
5.1	Opinion of Simpson Thacher & Bartlett LLP.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
23.2	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
23.3	Consent of Simpson Thacher & Bartlett LLP (included in Exhibit 5.1 to this Registration Statement).
24.1	Power of Attorney (included in signature pages of the Registration Statement).