

BIOLASE TECHNOLOGY INC

Form S-3/A

April 27, 2010

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As filed with the Securities and Exchange Commission on April 27, 2010

Registration No. 333-166145

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

**Amendment No. 1
to
FORM S-3
REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933
BIOLASE TECHNOLOGY, INC.**

(Exact name of registrant as specified in its charter)

Delaware
*(State or other jurisdiction of
incorporation or organization)*

87-0442441
*(I.R.S. Employer
Identification No.)*

**4 Cromwell, Irvine, California 92618
(949) 361-1200**

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

**David M. Mulder
Chief Executive Officer
Biolase Technology, Inc.
4 Cromwell
Irvine, California 92618
(949) 361-1200**

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

Copy to:

**William J. Cernius Esq.
Latham & Watkins LLP
650 Town Center Drive, Twentieth Floor
Costa Mesa, California 92626
Telephone: (714) 540-1235
Facsimile: (714) 755-8290**

Approximate date of commencement of proposed sale to the public: From time to time or at one time after the effective date of the Registration Statement as the registrant shall determine.

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

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

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

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

(Do not check if smaller reporting company)

CALCULATION OF REGISTRATION FEE

| Title of Securities to be Registered (1) | Proposed Maximum Aggregate Offering Price (1) | Amount of Registration Fee (2) |
|--|---|--------------------------------------|
| Common Stock, \$0.001 par value per share | \$ 9,500,000 | \$ 677.35(3) |
| Preferred Stock, \$0.001 par value per share | | |
| Warrants | | |

(1) There is being registered hereunder an indeterminate number of shares of common stock and preferred stock, and warrants that may be issued by the registrant at various times and at indeterminate prices, with a total offering price not to exceed \$9,500,000. Pursuant to Rule 416 under the Securities Act of 1933 (the Securities Act) the shares being registered hereunder include such indeterminate number of shares of common stock and preferred stock as may be issuable by the registrant with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions, as well as related preferred stock purchase rights.

Pursuant to Rule 457(i) under the Securities Act, the shares being registered hereunder include:

Such indeterminate number of shares of common stock as may be issuable by the registrant upon conversion or exchange of any preferred stock or warrants issued under this registration statement.

Such indeterminate number of shares of preferred stock as may be issuable by the registrant upon conversion or exchange of any preferred stock or warrants issued under this registration statement.

An indeterminate number of warrants to purchase common stock or preferred stock of one or more series. Pursuant to Rule 457(i) under the Securities Act, the warrants being registered hereunder include such indeterminate number of warrants as may be issuable by the registrant upon conversion or exchange of any preferred stock issued by the registrant under this registration statement.

In no event will the aggregate offering price of all securities issued by the registrant from time to time pursuant to this registration statement exceed \$9,500,000. The securities registered by the registrant hereunder may be sold separately or with other securities registered hereunder. At no time will the aggregate maximum offering price of all securities issued in any given 12-month period exceed the amount allowed for in General Instruction I.B.6.

- (2) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended.
- (3) Previously paid.

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

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The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities, and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 27, 2010

PROSPECTUS

\$9,500,000

Biolase Technology, Inc.

Common Stock

Preferred Stock

Warrants

We may offer and sell an indeterminate number of shares of our common stock and preferred stock, and warrants from time to time under this prospectus. We may offer these securities separately or as units, which may include combinations of the securities. We will describe in a prospectus supplement the securities we are offering and selling, as well as the specific terms of the securities.

We may offer these securities in amounts, at prices and on terms determined at the time of offering. We may sell the securities directly to you, through agents we select, or through underwriters and dealers we select. If we use agents, underwriters or dealers to sell the securities, we will name them and describe their compensation in a prospectus supplement.

Our common stock trades on the NASDAQ Capital Market under the symbol BLTI. On April 15, 2010, the closing price for our common stock, as reported on the NASDAQ Capital Market, was \$1.96 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on the NASDAQ Capital Market or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

As of April 15, 2010, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was approximately \$45,423,784, which was calculated based on 23,175,400 shares of outstanding common stock held by non-affiliates and on a price per share of \$1.96, the closing price of our common stock on April 15, 2010. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our securities in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75.0 million. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus.

Investing in our securities involves certain risks. See Risk Factors beginning on Page 3 of this prospectus and in the applicable prospectus supplement for certain risks you should consider. You should read the entire prospectus carefully before you make your investment decision.

We may sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution in this prospectus. If any underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable commissions or discounts will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

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 , 2010

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (SEC), utilizing a shelf registration process. Under the shelf registration process, we may offer shares of our common stock and preferred stock, and warrants to purchase any of such securities with a total value of up to \$9,500,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

designation or classification;

aggregate offering price;

rates and times of payment of interest, dividends or other payments, if any;

redemption, conversion, exchange or settlement, if any;

conversion, exchange or settlement prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion, exchange or settlement prices or rates and in the securities or other property receivable upon conversion, exchange or settlement;

ranking;

restrictive covenants, if any;

voting or other rights, if any; and

important federal income tax considerations.

A prospectus supplement may include a discussion of risks or other special considerations applicable to us or the offered securities. A prospectus supplement may also add, update or change information in this prospectus. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement, you must rely on the information in the prospectus supplement. Please carefully read both this prospectus and the applicable prospectus supplement together with additional information described under the heading **Where You Can Find More Information**. This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the common stock offered under this prospectus. The registration statement can be read at the SEC website or at the SEC's public reading room mentioned under the heading **Where You Can Find More Information**.

We have not authorized any broker-dealer, salesperson or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and the accompanying supplement to this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy securities, nor do this prospectus and the accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation. The information contained in this prospectus and the accompanying prospectus supplement speaks only as of the date set forth on the cover page and may not reflect subsequent changes in our business, financial condition, results of operations and prospects even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

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We may sell the securities directly or to or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

the names of those underwriters or agents;

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, if any; and

the net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. Holders of our common stock are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval. Subject to any preferential rights of any outstanding preferred stock, in the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in the assets remaining after payment of liabilities and the liquidation preferences of any outstanding preferred stock. Our common stock does not carry any redemption rights or any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of any class of our common stock.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Under our certificate of incorporation, our board of directors has the authority, without further action by stockholders, to designate up to 1,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges, qualifications and restrictions granted to or imposed upon the preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference and sinking fund terms, any or all of which may be greater than the rights of the common stock. Of the 1,000,000 shares of preferred stock, 500,000 shares are designated as Series B Junior Participating Cumulative Preferred Stock. On December 18, 1998, our Board of Directors adopted a stockholder rights plan under which one preferred stock purchase right was distributed on January 11, 1999 with respect to each share of our common stock outstanding at the close of business on December 31, 1998. The rights provide, among other things, that in the event any person becomes the beneficial owner of 15% or more of our common stock while the rights are outstanding, each right will be exercisable to purchase shares of common stock having a market value equal to two times the then current exercise price of a right (initially \$30.00). The rights also provide that, if on or after the occurrence of such event, we are merged into any other corporation or 50% or more of our assets or earning power are sold, each right will be exercisable to purchase common stock of the acquiring corporation having a market value equal to two times the then current exercise price of such stock. The rights are subject to redemption at \$0.001 per right at any time prior to the first date upon which they become exercisable to purchase common shares. The rights had an original expiration date of December 31, 2008, unless previously triggered. On December 19, 2008, the rights plan was amended, extending the term of the rights plan to December 31, 2018.

If we issue preferred stock, we will fix the rights, preferences, privileges, qualifications and restrictions of the preferred stock of each series that we sell under this prospectus and applicable prospectus supplements in the certificate of designations relating to that series. If we issue preferred stock, we will incorporate by reference into the registration statement of which this prospectus is a part the form of any certificate of designations that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. We urge you to read the prospectus supplement related to any series of preferred stock we may offer, as well as the complete certificate of designations that contains the terms of the applicable series of preferred stock.

Warrants. We may issue warrants for the purchase of common stock and/or preferred stock in one or more series, from time to time. We may issue warrants independently or together with common stock and/or preferred stock, and the warrants may be attached to or separate from those securities.

If we issue warrants, they will be evidenced by warrant agreements or warrant certificates issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. We urge you to read the prospectus supplement related to any series of warrants we may offer, as well as the complete warrant

agreement and warrant certificate that contain the terms of the warrants. If we issue warrants, forms of warrant agreements and warrant certificates relating to warrants for the purchase of common stock and preferred stock will be incorporated by reference into the registration statement of which this prospectus is a part from reports we would subsequently file with the SEC.

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ABOUT BIOLASE TECHNOLOGY, INC.

Biolase Technology, Inc., a Delaware corporation originally merged with a public holding company in 1987, is a medical technology company that develops, manufactures and markets lasers and related products focused on technologies for improved applications and procedures in dentistry and medicine. In particular, our principal products are dental laser systems that allow dentists, periodontists, endodontists, oral surgeons and other specialists to perform a broad range of dental procedures, including cosmetic and complex surgical applications. Our systems are designed to provide clinically superior performance for many types of dental procedures, with less pain and faster recovery times than are generally achieved with drills, scalpels and other dental instruments. We have clearances from the U.S. Food and Drug Administration to market our laser systems in the United States and also have the necessary approvals to sell our laser systems in Canada, the European Union, the People's Republic of China, and certain other international markets.

For additional information about our company, please refer to other documents we have filed with the SEC and that are incorporated by reference into this prospectus, as listed under the heading "Incorporation of Certain Information by Reference."

Our principal executive offices are located at 4 Cromwell, Irvine, California 92618. Our telephone number is (949) 361-1200. Additional information can be found on our website, at www.biolase.com, and in our periodic and current reports filed with the SEC. Copies of our current and periodic reports filed with the SEC are available at the SEC Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549, and online at www.sec.gov and our website at www.biolase.com. No portion of our website is incorporated by reference into this prospectus.

RISK FACTORS

Before making an investment decision, you should carefully consider the risks described under "Risk Factors" in the applicable prospectus supplement, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. This prospectus and the incorporated documents also contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks mentioned above.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains or incorporates by reference forward-looking statements and readers are cautioned that our actual results may differ materially from those discussed in the forward-looking statements. These forward-looking statements include, without limitation, statements and predictions regarding our operating expenses, sales and operations, anticipated cash needs, capital requirements and capital expenditures, needs for additional financing, use of working capital, plans for future products and services and for enhancements of existing products and services, anticipated growth strategies, ability to attract customers, sources of net revenue, anticipated trends and challenges in our business and the markets in which we operate, the adequacy of our facilities, the impact of economic and industry conditions on our customers and our business, customer demand, our competitive position, the outcome of any litigation against us, the perceived benefits of any technology acquisitions, critical accounting policies and the impact of recent accounting pronouncements. These statements are only predictions and actual events or results may differ materially and adversely from our expectations. Important factors that could cause actual results to differ materially from those stated or implied by our forward-looking statements include, but are not limited to, the impact of changes in demand for our products, our effectiveness in managing manufacturing costs and expansion of our operations, and the impact of competition and of technological advances. These forward-looking statements represent our judgment as of the date hereof.

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In evaluating our business, prospective investors should carefully consider these factors in addition to the other information set forth in this prospectus and incorporated herein by reference, including under the caption, Risk Factors. All forward-looking statements included in this document are based on information available to us on the date hereof, and all forward-looking statements in documents incorporated by reference are based on information available to us as of the date of such documents. We undertake no obligation to revise or update publicly any forward-looking statements for any reason. We disclaim any intent to update any forward-looking statements.

DESCRIPTION OF SECURITIES

We may offer shares of our common stock and preferred stock, and warrants to purchase any such securities with a total value of up to \$9,500,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of offering. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of our securities offered hereby. Except as described in any prospectus supplement, we currently anticipate using the net proceeds from the sale of our securities hereby primarily to fund general and administrative expenses. We may also use a portion of the net proceeds to pay off outstanding indebtedness and/or acquire or invest in complementary businesses, products and technologies. Although we have no specific agreements, commitments or understandings with respect to any acquisition, we evaluate acquisition opportunities and engage in related discussions with other companies from time to time.

Pending the use of the net proceeds, we intend to invest the net proceeds in short-term, interest-bearing, investment-grade securities.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges on a historical basis for the periods indicated. The ratios are calculated by dividing earnings by the fixed charges.

| | Years Ended December 31, | | | | |
|--|---------------------------------|-------------|-------------|-------------|-------------|
| | 2005 | 2006 | 2007 | 2008 | 2009 |
| | (in thousands) | | | | |

Ratio of earnings to fixed charges

PLAN OF DISTRIBUTION

We may sell the securities covered by this prospectus from time to time in one or more offerings. Registration of the securities covered by this prospectus does not mean, however, that those securities will necessarily be offered or sold.

We may sell the securities separately or together:

through one or more underwriters, dealers, or agents in a public offering and sale by them;

directly to investors; or

through agents.

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We may sell the securities from time to time:

in one or more transactions at a fixed price or prices, which may be changed from time to time;

at market prices prevailing at the times of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

We will describe the method of distribution of the securities and the terms of the offering in the prospectus supplement.

Any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

If underwriters are used in the sale of any securities, the securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions described above. 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 conditions precedent and the underwriters will be obligated to purchase all of the securities if they purchase any of the securities. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement or in a post-effective amendment.

Underwriters, dealers and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments made by the underwriters, dealers or agents, under agreements between us and the underwriters, dealers and agents.

We may grant underwriters who participate in the distribution of securities an option to purchase additional securities to cover over-allotments, if any, in connection with the distribution.

Underwriters, dealers or agents may receive compensation in the form of discounts, concessions or commissions from us or our purchasers, as their agents in connection with the sale of securities. These underwriters, dealers or agents may be considered to be underwriters under the Securities Act. As a result, discounts, commissions or profits on resale received by the underwriters, dealers or agents may be treated as underwriting discounts and commissions. The prospectus supplement will identify any such underwriter, dealer or agent and describe any compensation received by them from us. Any initial public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

Unless otherwise specified in the related prospectus supplement, all securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without

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notice. Any common stock sold pursuant to a prospectus supplement will be listed for trading on the NASDAQ Stock Market or other principal market for our common stock. We may apply to list preferred stock or warrants on an exchange, but we are not obligated to do so. Therefore, there may not be liquidity or a trading market for any series of securities.

Any underwriter may engage in over-allotment transactions, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. We make no representation or prediction as to the direction or magnitude of any effect that such transactions may have on the price of the securities. For a description of these activities, see the information under the heading **Underwriting or Plan of Distribution** in the applicable prospectus supplement.

Underwriters, broker-dealers or agents who may become involved in the sale of the common stock may engage in transactions with and perform other services for us in the ordinary course of their business for which they receive compensation.

LEGAL MATTERS

The legality of the issuance of the securities being offered hereby and the binding nature of any warrants being offered hereby is being passed upon by Latham & Watkins LLP, Costa Mesa, California.

EXPERTS

The consolidated financial statements in this prospectus, incorporated by reference from Biolase Technology, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009, have been audited by BDO Seidman, LLP, independent registered public accounting firm, as stated in their report, which is incorporated herein by reference, and has been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus the information contained in other documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. Any statement contained in any document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded, for purposes of this prospectus, to the extent that a statement contained in or omitted from this prospectus, or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. We incorporate by reference the documents listed below which have been filed by us and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until the offering is completed:

1. Our Annual Report on Form 10-K, filed March 19, 2010, for the year ended December 31, 2009;
2. Our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 1, 2010; and
3. Our Current Reports on Form 8-K, filed with the SEC on April 15, 2010, March 18, 2010, March 11, 2010, February 25, 2010, February 22, 2010, February 4, 2010, and January 13, 2010.

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Upon written or oral request, we will provide without charge to each person to whom a copy of the prospectus is delivered a copy of the documents incorporated by reference herein (other than exhibits to such documents unless such exhibits are specifically incorporated by reference herein). You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: Biolase Technology, Inc., 4 Cromwell, Irvine, California 92618, Attention: Investor Relations, telephone: (949) 361-1200. We have authorized no one to provide you with any information that differs from that contained in this prospectus. Accordingly, you should not rely on any information that is not contained in this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of the front cover of this prospectus.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the 1934 Act and in accordance therewith file reports, proxy statements and other information with the Securities and Exchange Commission. Our filings are available to the public over the Internet at the Securities and Exchange Commission's website at www.sec.gov, as well as at our website at www.biolase.com. You may also read and copy, at prescribed rates, any document we file with the Securities and Exchange Commission at the Public Reference Room of the Securities and Exchange Commission located at 100 F Street, N.E., Washington, D.C. 20549. Please call the Securities and Exchange Commission at (800) SEC-0330 for further information on the Securities and Exchange Commission's Public Reference Rooms.

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The following table sets forth various expenses in connection with the sale and distribution of the securities being registered. All of the amounts shown are estimates except for the Securities and Exchange Commission Registration Fee.

| | |
|---|-----------|
| Securities and Exchange Commission Registration Fee | \$ 677 |
| Accounting Fees | 10,000 |
| Legal Fees and Disbursements | 20,000 |
| Miscellaneous | 25,000 |
| Total: | \$ 55,677 |

Item 15. Indemnification of Officers and Directors.

The registrant's Certificate of Incorporation (the "Certificate") provides that, to the extent permitted by applicable law, 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. The Certificate eliminates the personal liability of directors to the fullest extent permitted by the Delaware Corporations Law and, together with the registrant's Bylaws, provides that the registrant shall fully indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, inquiry, investigation, administration hearing or other proceeding (whether civil, criminal, administrative, arbitral or investigative) by reason of the fact that such person is or was a director or officer of the registrant, or is or was serving at the request of the registrant as a director or officer of another corporation, partnership, limited liability company, joint venture, trust, employee benefit plan, foundation, association, organization or other legal entity, against expenses (including attorneys' fees), judgments, damages, liabilities, losses, penalties, excise taxes, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit, arbitration, alternate dispute resolution mechanism, inquiry, investigation, administration hearing or other proceeding. The registrant has also obtained liability insurance for its officers and directors and indemnification agreements with its directors and officers.

Item 16. Exhibits.

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

| Exhibit Number | Description of Exhibit |
|-------------------|---|
| 1.1 | Form of Underwriting Agreement* |
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| 3.2 | Fourth Amended and Restated Bylaws (2) |
| 4.1 | Form of Common Stock Certificate (3) |
| 4.2 | Form of Preferred Stock Certificate* |
| 4.3 | Form of Certificate of Designations* |

4.4 Form of Warrant Agreement*

4.5 Form of Warrant Certificate*

4.6 Stockholder Rights Agreement, dated as of December 19, 2008, by and between Biolase Technology, Inc. and Computershare, Inc., as Rights Agent (2)

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**Exhibit
Number**

Description of Exhibit

- | | |
|------|---|
| 4.7 | Form of Rights Certificate with respect to the Stockholder Rights Agreement (filed as part of Exhibit 4.6) (4) |
| 5.1 | Opinion of Latham & Watkins LLP** |
| 12.1 | Statement Regarding Computation of Ratio of Earnings to Fixed Charges* |
| 23.1 | Consent of Latham & Watkins LLP (filed as part of Exhibit 5.1) |
| 23.2 | Consent of BDO Seidman, LLP, Independent Registered Public Accounting Firm |
| 24.1 | Power of Attorney (included on signature page)** |
- * To be filed by amendment or as an exhibit to a report filed under the Exchange Act and incorporated herein by reference.
- ** Previously filed.
- (1) Incorporated by reference to the similarly described exhibit included with the registrant's Amendment No. 1 to Registration Statement on Form S-1, filed December 23, 2005.
- (2) Incorporated by reference to the similarly described exhibit included

with the
registrant's
Current Report
on Form 8-K,
filed
December 22,
2008.

(3) Incorporated by
reference to the
similarly
described
exhibit included
with the
registrant's
Registration
Statement on
Form S-3, filed
June 3, 2002.

(4) Incorporated by
reference to the
similarly
described
exhibit included
with the
registrant's
Registration
Statement on
Form 8-A, filed
on
December 29,
1998.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(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 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.

(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)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section 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 Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act

of 1934 that are incorporated 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.

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

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in this Registration Statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. 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 effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of this Registration Statement or made in any such document immediately prior to such effective date.

(5) 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 undersigned 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 undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) 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;

(iii) 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 undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

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

The undersigned registrant hereby further undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance under Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4), or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus 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.

The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act (Act) in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

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Pursuant to the requirements of the Securities Act of 1933, 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 Amendment No. 1 to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Irvine, State of California, on April 27, 2010.

Biolase Technology, Inc.

By: /s/ David M. Mulder

David M. Mulder
Chief Executive Officer

By: /s/ Brett L. Scott

Brett L. Scott
Chief Financial Officer

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

| Signature | Title | Date |
|--|---|----------------|
| /s/ David M. Mulder David M. Mulder | Chief Executive Officer and Director (Principal Executive Officer) | April 27, 2010 |
| /s/ Brett L. Scott Brett L. Scott | Chief Financial Officer (Principal Financial and Accounting Officer) | April 27, 2010 |
| * | President and Director | April 27, 2010 |
| Federico Pignatelli * | Director | April 27, 2010 |
| Robert M. Anderton, DDS * | Chairman of the Board | April 27, 2010 |
| George V. d Arbeloff * | Director | April 27, 2010 |
| Daniel S. Durrie, M.D. * | Director | April 27, 2010 |
| Neil J. Laird * | Director | April 27, 2010 |

James R. Largent

* Director April 27, 2010

Gregory D. Waller

* Signed by Brett L. Scott on behalf of those identified pursuant to his designation as attorney-in-fact signed by each in connection with the filing of the Registration Statement on April 16, 2010.

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**BIOLASE TECHNOLOGY, INC.
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on
December 29,
1998.