

BIOLASE TECHNOLOGY INC

Form 424B5

December 23, 2010

**Table of Contents**

**Prospectus Supplement  
Filed Pursuant to Rule 424(b)(5)  
File No. 333-166145**

**PROSPECTUS SUPPLEMENT  
To Prospectus dated April 29, 2010**

**3,000,000 Shares of Common Stock**

**BIOLASE TECHNOLOGY, INC.**

This prospectus supplement relates to the issuance and sale of up to 3,000,000 shares of our common stock through our sales agent, Ascendant Securities, LLC. These sales, if any, will be made pursuant to the terms of a Controlled Equity Offering Agreement, entered into between us and our sales agent, the form of which was filed with the Securities and Exchange Commission under a Current Report on Form 8-K dated December 23, 2010, and is incorporated herein by reference. Our sales agreement with Ascendant Securities, LLC is limited to the sale of 3,000,000 shares of our common stock.

Our common stock is traded on the NASDAQ Capital Market under the symbol BLTI. On December 22, 2010, the last reported sales price for our common stock was \$1.66 per share. Sales of shares of our common stock under this prospectus supplement, if any, may be made (i) in sales deemed to be an at the market offering as defined in Rule 415 under the Securities Act of 1933, which includes sales made directly on the NASDAQ Capital Market, the existing trading market for our common stock, or sales made to or through a market maker, (ii) by privately negotiated transactions and/or (iii) any other method permitted by law. Consistent with instructions that may be delivered from time to time by us, the sales agent will make all sales using commercially reasonable best efforts consistent with its normal trading and sales practices.

The commission we will pay to our sales agent for sales of common stock sold pursuant to the Controlled Equity Offering Agreement will be 3.75% of the gross proceeds of the sales. The net proceeds that we receive from sales of our common stock will depend on the number of shares actually sold and the offering price for such shares. If all 3,000,000 shares of common stock were sold at the December 22, 2010 closing sales price, we would receive \$4,980,000 in gross proceeds, or \$4,793,250 in aggregate net proceeds assuming a sales agent fee of 3.75%. The actual proceeds to us will vary. Additionally, we may sell any of the 3,000,000 shares of common stock directly to our sales agent for their own account, with the terms and conditions, including price, to be determined at the time of such sale. No commission will be paid to the sales agent for any such direct sales by us to the sales agent.

In connection with the sale of common stock on our behalf, the sales agent may be deemed an underwriter within the meaning of the Securities Act of 1933, as amended, and the compensation of the sales agent may be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to the sales agent against certain liabilities, including liabilities under the Securities Act of 1933.

The aggregate market value of our outstanding common equity held by non-affiliates on December 22, 2010, was \$40,834,074. During the 12 calendar months prior to and including the date hereof, we have sold securities with an aggregate market value of \$251,812 pursuant to General Instruction I.B.6. of Form S-3 (utilizing, for this purpose, the closing sale price on December 22, 2010, as the reference for market value with respect to warrants to acquire 151,694 shares of our common stock).

**Investing in our securities involves a high degree of risk. See the section entitled Risk Factors in this prospectus supplement and in the documents we incorporate by reference in this prospectus. You should carefully consider these risk factors, as well as the information contained in this prospectus supplement and the accompanying prospectus, before you invest.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

**Ascendant Securities, LLC**

The date of this Prospectus Supplement is December 23, 2010.



**TABLE OF CONTENTS**  
**Prospectus Supplement**

	<b>Page</b>
<u>About this Prospectus Supplement</u>	ii
<u>Prospectus Supplement Summary</u>	S-1
<u>Our Company</u>	S-1
<u>The Offering</u>	S-3
<u>Risk Factors</u>	S-4
<u>Forward-Looking Statements</u>	S-6
<u>Use of Proceeds</u>	S-6
<u>Summary Financial Data</u>	S-7
<u>Plan of Distribution</u>	S-8
<u>Experts</u>	S-9
<u>Legal Matters</u>	S-10
<u>Where You Can Find More Information</u>	S-10

You should rely only on the information incorporated by reference or provided in this prospectus supplement, the accompanying prospectus and the documents incorporated herein and therein by reference. We have not authorized anyone else to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any state where the offer or sale is not permitted. You should assume that the information in this prospectus supplement and the accompanying prospectus, or incorporated by reference, is accurate only as of the dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

**Table of Contents**

**ABOUT THIS PROSPECTUS SUPPLEMENT**

We are providing this information to you about this offering of securities in two parts. The first part is this prospectus supplement, which provides the specific details regarding the shares of our common stock that we are selling in this offering and also adds to and updates information contained in or incorporated by reference into the accompanying prospectus. The second part is the base prospectus dated April 29, 2010, included in our registration statement on Form S-3, as amended (SEC File No. 333-166145), which provides a general description of the securities we may offer from time to time under that registration statement. This prospectus supplement and the accompanying prospectus are part of a shelf registration statement that we filed with the U.S. Securities and Exchange Commission. Under the shelf registration process, we may offer from time to time shares of our common stock up to an aggregate amount of \$9,500,000, of which this offering is a part. To the extent there is a conflict between information contained in this prospectus supplement, on the one hand, and information contained in the accompanying prospectus or any document incorporated by reference, on the other hand, the information in this prospectus supplement shall control. The registration statement we filed with the SEC includes exhibits that provide more detail of the matters discussed in this prospectus supplement and the accompanying prospectus. You should read this prospectus supplement, the accompanying prospectus and the related exhibits filed with the SEC, together with the additional information described under the heading **Where You Can Find More Information**, before making your investment decision. Unless the context otherwise requires, references in this prospectus and the accompanying prospectus supplement to **Biolase**, **the Company**, **we**, **us** and **our** refer to **Biolase Technology, Inc.**

**Table of Contents**

**PROSPECTUS SUPPLEMENT SUMMARY**

*This summary contains basic information about us and this offering. Because it is a summary, it does not contain all of the information that you should consider before investing. Before you decide to invest in our common stock, you should read this entire prospectus supplement and the accompanying prospectus carefully, including the section entitled Risk Factors, and our consolidated financial statements and the related notes and other documents incorporated by reference in the accompanying prospectus.*

**OUR COMPANY**

**OVERVIEW**

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 in certain other international markets throughout the world.

Our principal executive offices are located at 4 Cromwell, Irvine, California 92618, and our telephone number is (949) 361-1200.

**PRODUCTS**

The Waterlase Dentistry solution offers two categories of laser system products: our Waterlase® family of products and our Diode family of products (which includes our ezlase® and iLase systems), as well as related consumables, training, and services. In addition to products developed for the dental market, in late 2009 we introduced our first product outside of our primary market, the Diolase 10, as part of our strategic expansion into the medical specialty markets, including sports medicine, orthopedics, physical therapy, and chiropractics. The Diolase 10 is a diode laser used for therapeutic applications, including temporary pain relief and is based on the ezlase platform.

*Waterlase systems.* Our Waterlase systems use a patented combination of water and laser to perform most dental procedures currently performed using dental drills, scalpels and other traditional dental instruments for cutting soft and hard tissue plus bone. We refer to our patented interaction of water and laser as YSGG Laser HydroPhotonics. In October 2004, we launched the Waterlase MD, which has a broad range of clinical capabilities both in dentistry and other medical disciplines. We designed the Waterlase MD to provide the clinical benefits dentists desire, while also providing the comfort sought by patients. Advanced capabilities and new features coupled with innovative, ergonomic styling and design, are part of our proprietary MD technology platform. In July 2008, our Waterlase C100 All-Tissue Dental Laser System was introduced into the market. In February 2009, we introduced the Waterlase MD Turbo All-Tissue Dental Laser System, an upgrade to the original Waterlase MD with cutting speeds approaching that of a high speed drill.

*Diode systems.* We also offer a line of Diode laser systems which use a semiconductor diode laser to perform soft tissue, cosmetic procedures and teeth whitening in dentistry and for pain management therapy. Our dental diode systems serve the growing markets of cosmetic and hygiene procedures. In early 2007, we received U.S. Food and Drug Administration 510(k) clearance for and launched the ezlase diode laser system. The ezlase system's approved indications include incision, excision, vaporization, ablation and coagulation of oral soft tissues as well as laser periodontal procedures, including laser soft tissue curettage and laser removal of diseased, infected, inflamed and necrosed soft tissue within the periodontal pocket, and sulcular debridement. In December 2008, we received an additional 510(k) clearance for tooth whitening using the ezlase. In February 2010, we introduced our new iLase diode laser system, the first personal, affordable dental diode laser that provides minimally invasive solutions for common everyday soft tissue surgical and hygiene procedures. Featuring patent-pending finger switch activation, battery power, our unique 940 nm wavelength, and ComfortPulse cutting modality, the iLase is portable and truly personal and we believe it represents the perfect complement for every dental operator. The iLase is CE mark-approved and

received FDA 510(k) clearance in the United States in March 2010.

**TRADITIONAL DENTAL INSTRUMENTS**

Dental procedures are performed on hard tissue, such as bone and teeth, and soft tissue, such as gum and other oral tissue. Dentists and other specialists choose from a variety of instruments depending on the tissue involved and the type of procedure. Most procedures require the use of multiple instruments to achieve the desired result.

S-1

---

**Table of Contents**

*High Speed Drills.* Most dentists use high speed drills for hard tissue procedures, such as preparing cavities for filling and gaining access for performing root canals or shaving and contouring oral bone tissue. Potentially adverse effects associated with drills include thermal heat transfer, vibration, pressure and noise. The cutting and grinding action of high speed drills can cause damage to the patient's dental structure and the trauma caused to the surrounding tissues can lead to increased recovery times. Additionally, this grinding action of high speed drills may weaken the tooth's underlying structure, leading to fractures and broken cusps. Crowns and root canals may become necessary as a result of damage caused during previous dental procedures. Anesthesia is generally required for all procedures that involve the use of high speed drills. As a result, dentists often limit procedures to one or two quadrants of the mouth because of concerns relating to the use of anesthesia in several regions. This can force patients to return several times to complete their treatment plan.

*Cutting Instruments.* Soft tissue procedures, such as reshaping gum lines and grafting on new gum tissue, are typically performed by oral surgeons or periodontists using scalpels, scissors and other cutting tools. Due to the pain and discomfort associated with procedures performed with these instruments, most soft tissue procedures require the use of local anesthetic which results in numbness and discomfort, and often require stitches. Use of scalpels, scissors and other cutting tools typically cause bleeding, post-operative swelling and discomfort. Bleeding can impair the practitioner's visibility during the procedure, thereby reducing efficiency. Bleeding is a particular problem for patients with immune deficiencies or blood disorders, and patients taking blood-thinning medications.

**OUR SOLUTION**

We believe the potential for increased patient satisfaction, improved outcomes, and enhanced practice profitability that can be achieved through use of our products will position our laser systems as the instruments of choice among practitioners and patients. We have developed our laser systems and related products specifically for the dental market to more effectively perform a broad range of dental procedures. We believe the skill level and dexterity necessary to operate our laser systems are similar to those necessary to operate conventional drills and other dental equipment. Our laser systems also have the advantage of being minimally invasive and able to perform procedures in narrow spaces where access by conventional instruments often is limited. Our systems are intended to complement traditional tools, such as dental drills, which perform functions that our systems do not address, such as cutting metal fillings and certain polishing and grinding functions.

Our Waterlase systems precisely cut hard tissue, such as bone and teeth, and soft tissue, such as gums, with minimal or no damage to surrounding tissue and dental structure. Our Diode systems are designed to complement the Waterlase systems, and are used in soft tissue procedures, hygiene and cosmetic applications. The Diode systems, together with our Waterlase systems, offer practitioners a broad product line with a range of features and price points. A small percentage of dental professionals worldwide currently use lasers. Moreover, our laser systems are more expensive than traditional dental tools. However, we believe that the significant clinical advantages of our systems, patient benefits, the potential return on investment that our systems offer practitioners and the options available to finance the purchase of our systems will enable us to continue to penetrate the dental market segment. Laser technologies with similar patient benefits have become standard of care in ophthalmology, dermatology and other medical specialties.

We believe the demand for our systems will continue to expand as we increase awareness of the benefits to patients and dental professionals.



**Table of Contents**

**THE OFFERING**

Common stock offered by Biolase	Up to 3,000,000 shares
Common stock outstanding after this offering	Up to 27,598,840 shares
Use of proceeds	We intend to use the net proceeds for general corporate purposes, and for other working capital and operational purposes including repayment of debt. See Use of Proceeds.
Risk factors	See the Risk Factors section of this prospectus supplement for factors to consider before deciding to purchase our securities.
NASDAQ listing	Our common stock is listed on the NASDAQ Capital Market under the symbol BLTI.

The number of shares of common stock outstanding after the offering is based on 27,598,840 shares of common stock outstanding as of December 22, 2010, and excludes:

- 4,133,990 shares of common stock issuable upon the exercise of outstanding stock options at a weighted average exercise price of \$3.60 per share; and
- 151,694 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$0.81 per share.

The shares of common stock issuable upon the exercise of outstanding stock options set forth above include 1,457,100 shares of common stock granted on December 22, 2010 under our 2002 Stock Incentive Plan.

**Table of Contents**

**RISK FACTORS**

*Investing in our common stock involves a high degree of risk. You should consider the following risk factors, as well as the risk factors and other information contained or incorporated by reference in this prospectus supplement and accompanying prospectus, before deciding to invest in our common stock. The following factors affect our business and the industry in which we operate. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known or which we currently consider immaterial may also have an adverse effect on our business. If any of the matters discussed in the following risk factors, or in those risk factors incorporated by reference in this prospectus supplement and accompanying prospectus, were to occur, our business, financial condition, results of operations, cash flows, or prospects could be materially adversely affected, the market price of our common stock could decline and you could lose all or part of your investment.*

***There is currently a limited market for our securities. Any trading market that exists in our securities may be highly illiquid and may not reflect the underlying value of our net assets or business prospects.***

Although our common stock is traded on the NASDAQ Capital Market, there is currently a limited market for our securities and there can be no assurance that an improved market will ever develop. Investors are cautioned not to rely on the possibility that an active trading market may develop.

***Our stock may be delisted from NASDAQ, which could affect its market price and liquidity.***

We are required to meet certain qualitative and financial tests (including a minimum stockholders' equity requirement and bid price for our common stock of \$1.00 per share) to maintain the listing of our common stock on the NASDAQ Capital Market. During portions of 2009 and 2010, our stockholders' equity was below the continued listing standard requirement and the bid price for our common stock was below \$1.00 per share for periods of time. Although the requirements of continued listing on the NASDAQ Capital Market were subsequently regained, we may receive additional future notices from NASDAQ that we have failed to meet these requirements. If we are unable to cure any such failures in a timely manner and our common stock were delisted, it could be more difficult to buy or sell our common stock and to obtain accurate quotations, and the price of our stock could suffer a material decline. Delisting may also impair our ability to raise capital.

***As our share price is volatile, you may not be able to resell our shares at a profit or at all.***

The market prices for our common stock has historically been highly volatile and may continue to be highly volatile in the future. Broad market and industry factors, as well as economic and political factors, also may materially adversely affect the market price of our common stock.

***Future sales of our common stock in the public market could lower our stock price.***

We may sell additional shares of common stock in subsequent public or private offerings. We may also issue additional shares of common stock to finance future acquisitions. We cannot predict the size of future issuances of our common stock or the effect, if any, that future issuances and sales of shares of our common stock will have on the market price of our common stock. Sales of substantial amounts of our common stock (including shares issued in connection with an acquisition), or the perception that such sales could occur, may adversely affect prevailing market prices for our common stock.

***We presently do not intend to pay cash dividends on our common stock.***

We currently anticipate that no cash dividends will be paid on the common stock in the foreseeable future. While our dividend policy will be based on the operating results and capital needs of the business, it is anticipated that all earnings, if any, will be retained to finance the future expansion of our business.

***Our stockholders may experience substantial dilution in the value of their investment if we issue additional shares of our capital stock.***

Our certificate of incorporation allows us to issue up to 50,000,000 shares of our common stock and to issue and designate the rights of, without stockholder approval, up to 1,000,000 shares of preferred stock. In the event we issue additional shares of our capital stock, dilution to our stockholders could result. In addition, if we issue and designate a class of convertible preferred stock, these securities may provide for rights, preferences or privileges senior to, and thus adverse to, those of holders of our common stock.

***Our management has significant flexibility in using the net proceeds of this offering.***

We intend generally to use the net proceeds from this offering for general corporate purposes including the repayment of debt. However, depending on future developments and circumstances, we may use some of the proceeds for other purposes. Therefore, our management will have significant flexibility in applying the net proceeds of this offering.

The actual amounts and timing of expenditures will vary significantly depending on a number of factors, including the amount of cash used in our operations and our research and development efforts. Management's failure to use these funds effectively would have an adverse effect on the value of our common stock and could make it more difficult and costly to raise funds in the future.

**Table of Contents**

***You will experience immediate dilution in the book value per share of the common stock you purchase.***

Because the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. If you purchase shares of common stock in this offering at the current market value, you will suffer immediate and substantial dilution in the net tangible book value of the common stock. The perceived risk of dilution may cause our stockholders to sell their shares, which would contribute to a downward movement in the stock price of our common stock. Moreover, the perceived risk of dilution and the resulting downward pressure on our stock price could encourage investors to engage in short sales of our common stock. By increasing the number of shares offered for sale, material amounts of short selling could further contribute to progressive price declines in our common stock.

***Our common stock has experienced in the past, and is expected to experience in the future, significant price and volume volatility, which substantially increases the risk of loss to persons owning our common stock.***

Because of the limited trading market for our common stock, and because of the possible price volatility, you may not be able to sell your shares of common stock when you desire to do so. In the one-year period preceding this Prospectus Supplement, our stock price ranged from a high of \$2.46 to a low of \$0.61 per share. The inability to sell your shares in a rapidly declining market may substantially increase your risk of loss because of such illiquidity and because the price for our common stock may suffer greater declines because of its price volatility.

**Table of Contents****FORWARD-LOOKING STATEMENTS**

*This prospectus supplement 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. Such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These risks and uncertainties include, but are not limited to, those risks discussed in Risk Factors, as well as those other risks detailed in our filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date of this prospectus supplement. We assume no obligation or undertaking to update or revise any forward-looking statements contained herein to reflect any changes in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.*

**USE OF PROCEEDS**

If all 3,000,000 shares of common stock were sold at the December 22, 2010, closing sales price, we would receive \$4,980,000 in gross proceeds, or \$4,793,250 in aggregate net proceeds assuming a sales agent fee of 3.75%. However, there can be no assurance we will sell any or all of the shares offered hereby. Because there is no minimum offering amount required, we may sell less than all of the shares offered hereby, which may significantly reduce the amount of proceeds received by us.

We intend to use the net proceeds from the sale of the common stock offered by this prospectus supplement and the accompanying prospectus for general corporate purposes and for other working capital and operational purposes. General corporate purposes may include additions to working capital, financing of capital expenditures, repayment or redemption of existing indebtedness, and future acquisitions and strategic investment opportunities, although we have no current commitments for any such acquisition or investment. Our management will retain broad discretion as to the allocation of the net proceeds from this offering.

Until we use the net proceeds of this offering, we intend to invest the funds in short-term, interest bearing investments.

**Table of Contents****SUMMARY FINANCIAL DATA**

The summary historical financial data presented below was derived from our financial statements. The financial data is only a summary and should be read in conjunction with our financial statements and related notes that we incorporate by reference in this prospectus supplement. For copies of the financial information we incorporate by reference in this prospectus supplement, see [Where You Can Find More Information](#).

	<b>Nine Months Ended September 30, 2010 (unaudited)</b>	<b>Twelve Months Ended December 31, 2009                      2008</b>	
<b>Consolidated Statements of Operations Data:</b>			
Net revenue	\$ 16,507	\$ 43,347	\$ 64,625
Cost of revenue	12,515	23,285	31,963
Gross profit	3,992	20,062	32,662
Operating expenses:			
Sales and marketing	7,825	11,041	22,040
General and administrative	5,031	7,835	12,006
Engineering and development	2,990	4,146	5,580
Patent infringement legal settlement			1,232
Impairment of intangible asset			232
Impairment of property, plant and equipment			355
Total operating expenses	15,846	23,022	41,445
Loss from operations	(11,854)	(2,960)	(8,783)
Non-operating (loss) income, net	(289)	123	(225)
Loss before income tax provision	(12,143)	(2,837)	(9,008)
Income tax provision	52	119	121
Net loss	\$ (12,195)	\$ (2,956)	\$ (9,129)
Net loss per share:			
Basic	\$ (.50)	\$ (.12)	\$ (.38)
Diluted	\$ (.50)	\$ (.12)	\$ (.38)
Dividends declared and paid, per share			
Shares used in computing net loss per share:			
Basic	24,403	24,282	24,178
Diluted	24,403	24,282	24,178

**Consolidated Balance Sheet Data:**

Edgar Filing: BIOLASE TECHNOLOGY INC - Form 424B5

Working capital (deficit)	(4,494)	4,802	5,023
Total assets	19,493	22,177	35,708
Total liabilities	23,040	14,248	26,318
Stockholders' equity (deficit)	(3,547)	7,929	9,390

S-7

---

**Table of Contents**

**PLAN OF DISTRIBUTION**

Pursuant to General Instruction I.B.6. of Form S-3, we are permitted to utilize the registration statement of which this prospectus supplement and prospectus forms a part to sell a maximum amount of securities equal to one-third of the aggregate market value of the outstanding voting and non-voting common equity held by our non-affiliates in any 12-month period. We may, from time to time, offer the securities registered hereby up to an amount which, when considered with other sales made pursuant to General Instruction I.B.6. of Form S-3 within the then preceding 12-month period, would represent this maximum amount.

We have entered into a Controlled Equity Offering Agreement, dated as of December 22, 2010, with Ascendant Securities, LLC, under which we may sell an aggregate of 3,000,000 shares of our common stock from time to time through Ascendant Securities, LLC, as our agent for the offer and sale of the common stock. Based on the trading price of our common stock, we may not be able to sell all 3,000,000 shares offered hereby. Consistent with instructions that may be delivered from time to time by us, Ascendant Securities, LLC may sell the common stock (i) in at the market offerings as defined in Rule 415 of the Securities Act, including sales made directly on the NASDAQ Capital Market, the existing trading market for the common stock, or sales made to or through a market maker, (ii) in privately negotiated transactions, subject to our prior approval, or (iii) by any other method permitted by law.

Each time that we wish to issue and sell common stock under the Controlled Equity Offering Agreement, we will provide Ascendant Securities, LLC with a placement notice describing the number of shares to be issued, the time period during which sales are requested to be made, any limitation on the number of shares of common stock that may be sold in any one day, and any minimum price below which sales may not be made.

Upon receipt of a placement notice from us, and subject to the terms and conditions of the Controlled Equity Offering Agreement, Ascendant Securities, LLC has agreed to use its commercially reasonable best efforts, consistent with its normal trading and sales practices, to sell such shares up to the amount specified on such terms. Additionally, upon the delivery of the placement notice, we shall deliver to Ascendant Securities, LLC with the maximum number of shares to be issued to their account at the Depository Trust Company via the DWAC system. If Ascendant Securities, LLC does not sell the maximum number of shares, we may elect to instruct Ascendant Securities, LLC to return the unsold shares to us or to hold the shares, in which case such shares would be applied to a subsequent placement. The settlement between us and Ascendant Securities, LLC of our common stock will occur on the third trading day following the date on which the sale was made. The obligation of Ascendant Securities, LLC under the Controlled Equity Offering Agreement to sell our common stock pursuant to a placement notice is subject to a number of conditions.

We will pay Ascendant Securities, LLC a commission equal to 3.75% of the gross proceeds of the sales price of all common stock sold through it as sales agent under the Controlled Equity Offering Agreement. Based on the closing price of our common stock on December 22, 2010, because our Controlled Equity Offering Agreement with Ascendant Securities, LLC is limited to the sale of 3,000,000 shares of our common stock, if all such 3,000,000 shares of common stock were sold at the December 22, 2010 closing sales price, we would receive \$4,980,000 in gross proceeds, or \$4,793,250 in aggregate net proceeds after deducting the sales agent fee of 3.75%. The actual proceeds to us will vary. Because there is no minimum offering amount required as a condition to the closing, the actual total (if any) may be substantially less than the amount set forth above. We have also agreed to reimburse certain of Ascendant's legal fees, up to a maximum of \$30,000.

In connection with the sale of our common stock contemplated in this prospectus supplement, Ascendant Securities, LLC may be deemed to be an underwriter within the meaning of the Securities Act of 1933, as amended, and the compensation paid to Ascendant Securities, LLC may be deemed to be underwriting commissions or discounts. We have agreed to indemnify Ascendant Securities, LLC against certain civil liabilities, including liabilities under the Securities Act of 1933.

Sales of our common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust & Clearing Corporation or by such other means as we and Ascendant Securities, LLC may agree upon.



The offering of our common stock pursuant to the Controlled Equity Offering Agreement will terminate on the earliest of (i) December 31, 2012, (ii) the sale of all of our common stock subject to the Controlled Equity Offering Agreement or (iii) termination of the Controlled Equity Offering Agreement by us or Ascendant Securities, LLC. The Controlled Equity Offering Agreement may be terminated at any time by either us or Ascendant Securities, LLC.

**Table of Contents**

In connection with this offering, Ascendant Securities, LLC has advised us that they will not engage in stabilizing transactions.

This is a brief summary of the material provisions of the Controlled Equity Offering Agreement and does not purport to be a complete statement of its terms and conditions. The Controlled Equity Offering Agreement has been included as an exhibit to our Current Report on Form 8-K filed with the SEC in connection with this offering and incorporated by reference into the registration statement of which this prospectus supplement forms a part. See [Where You Can Find More Information](#).

Other than the electronic formats of this prospectus supplement and the accompanying prospectus made available by the sales agent, the information contained on, or accessible through, either the sales agent's website or any other website maintained by it is not part of the prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part, has not been approved or endorsed by us and should not be relied upon by investors.

The transfer agent for our common stock is Computershare, Glendale, California.

Our common stock is listed on the NASDAQ Capital Market under the symbol [BLTI](#).

**EXPERTS**

The financial statements as of December 31, 2009 and 2008 and for each of the three years in the period ended December 31, 2009 incorporated by reference in this Prospectus Supplement have been so incorporated in reliance on the report of BDO Seidman, LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting. Their report on the financial statements appearing in the Annual Report on Form 10-K of the Company for the year ended December 31, 2009 contained an explanatory paragraph regarding the Company's ability to continue as a going concern.

**Table of Contents**

**LEGAL MATTERS**

The validity of any securities offered by this prospectus supplement will be passed upon for us by Carroll & Carroll, P.C., Irvine, California.

**WHERE YOU CAN FIND MORE INFORMATION**

We have filed a registration statement on Form S-3 with the SEC under the Securities Act of 1933. This prospectus supplement and the accompanying prospectus is part of the registration statement but the registration statement includes and incorporates by reference additional information and exhibits. We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement and any document we file with the SEC at the public reference room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site that contains reports, proxy and information statements and other information regarding companies, such as ours, that file documents electronically with the SEC. The address of that site on the world wide web is <http://www.sec.gov>. The information on the SEC's web site is not part of this prospectus, and any references to this web site or any other web site are inactive textual references only.

The SEC permits us to incorporate by reference the information contained in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus supplement and the accompanying prospectus. Information that is incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus and you should read it with the same care that you read this prospectus supplement and the accompanying prospectus. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus supplement and the accompanying prospectus, and will be considered to be a part of this prospectus supplement and the accompanying prospectus from the date those documents are filed. We have filed with the SEC, and incorporate by reference in this prospectus supplement and the accompanying prospectus:

- our Annual Report on Form 10-K for the year ended December 31, 2009;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2010, June 30, 2010, and September 30, 2010;
- our Current Reports on Form 8-K filed on November 3, 2010, December 6, 2010, and December 23, 2010;
- and
- the description of our common stock contained in our Registration Statement on Form 8-A filed on December 29, 1998.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made between the date of this prospectus supplement and the termination of any offering of securities offered by this prospectus supplement or the accompanying prospectus. We are not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

You may request a copy of any or all of the documents incorporated by reference but not delivered with this prospectus, at no cost, by writing or telephoning us at the following address and number: Investor Relations, Biolase Technology, Inc. at 4 Cromwell, Irvine, California 92618, and our telephone number is (949) 361-1200. We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents. We also maintain a website at <http://www.biolase.com>. However, the information on our website is not part of this prospectus.

\* \* \*

S-10