



# CAPITAL MARKET REPORT

BIOLASE, INC. (NASDAQ CM: BIOL)

## Revolutionizing Surgery in Dentistry and Medicine

Through innovation, research, strategic management and tactical activities, Biolase, Inc. ("Biolase" or "the Company") has become recognized as a disruptive force in the dental industry. The Company's laser products incorporate over 280 patented and patent pending technologies and applications designed to provide clinically superior performance with less pain and faster recovery times.



Biolase has revolutionized the world of dentistry by developing **innovations** in hydro-photonic lasers and **pioneering painless dentistry**. The Company offers a superior solution for basic dentistry without requiring needles or drills as well as the opportunity for dentists to perform more advanced gum surgeries without a scalpel. The Company's patented revolutionary Waterlase™ technology, is a truly biologic method to cut hard and soft tissue. This technology makes traditional surgical cutting methods including scalpels, saws, drills, electro surgery, and heat-generating lasers obsolete.

*"I have owned and currently own all of BIOLASE WaterLase Lasers and my iPlus is by far the single most advanced laser ever produced in terms of cutting speed, not only for teeth but soft tissue and bone as well."*



Dr. Stephen Spitz  
Boston, MA

Besides Waterlase technology, Biolase has developed a very sophisticated line of diode laser dental products, including the handheld iLase™ and the recently introduced Epic 10™. The fingertip-activated iLase is the first truly portable and battery operated diode laser. The Epic 10 is the Company's evolution of the very successful ezLase line of desktop lasers and offers an excellent platform for the future.

In keeping with the Company's goal of becoming a one-stop technology provider to the dental industry, Biolase last year formed a new digital imaging division, offering high-precision intuitive diagnosis and treatment planning solutions.

Long an acknowledged market leader in dental lasers, holding 80% of the U.S. hard tissue dental market and 45% of the total U.S. dental laser market (2009), the Company is now evolving into a total dental technology solutions provider and expanding its proprietary laser technologies into additional medical fields.

Despite this clear market dominance, the Company has penetrated only approximately 4% of the U.S. market and slightly more than 1% internationally. Management believes that for every 1% of further market penetration in hard tissue lasers, the revenue opportunity exceeds \$500 million, with additional hundreds of millions of dollars in recurring revenues on consumables. **The most significant growth of Biolase is still ahead.**

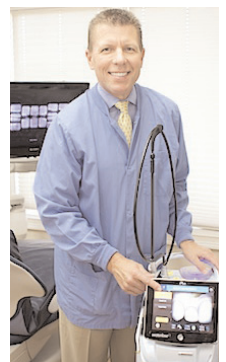
In the last year, Biolase has made significant strides globally by expanding its operations in Europe and developing new operations in Asia and India. The Company also obtained approvals for distribution in Canada, Korea, Russia, Taiwan and others. With sales offices in Germany, Spain, China and India, and with expansion planned for the UAE and Brazil, the Company is clearly focused on growing its brand and reputation throughout the world.

### Background

Biolase is a company undergoing a classic turnaround. Under current Chairman and CEO Federico Pignatelli, the Company saw rapid growth in the early 2000s and a market cap that rose from its initial \$3M in 1994 to over \$430M in 2005.

Mr. Pignatelli left his role as Chairman in August 2006 as the Board and management adopted a distribution model that included an exclusive contract with a single distributor, Henry Schein. Mr. Pignatelli was opposed to this model and it ultimately led to a decrease in revenues of as much as 60% from the peak and put the Company in severe jeopardy.

*"I believe that laser technology will become 'the standard of care' in the next 5-7 years. The laser is much more accurate and can pinpoint tissue much better than a burr. I'd jump all over this if I were an older dentist, as it makes procedures easier to do. Younger dentists have the opportunity to really change the course of their career."*  
- Dr. Bruce Cassis





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*"Utilizing the laser, I can offer better care to fewer patients. It's a controlled environment that also gives me freedom to enjoy a more relaxed lifestyle."* -Dr. Robert "Bo" Turnage, DDS

In mid 2010, Mr. Pignatelli initiated a proxy fight and was able to reconstitute the Board and management. Beginning in August 2010, Mr. Pignatelli implemented new policies designed to guide Biolase to profitability and regain a strong market valuation. The exclusive distribution with Henry Schein was cancelled, the Company returned to its direct sales model in North America, operating costs were reduced, and new distribution partners were added internationally. Management also restructured the balance sheet during 2011 by eliminating debt through capital raises and efforts to generate working capital. The results speak for themselves.

In 2011, revenues were up 87% over the prior year and sales of the Company's Waterlase systems grew 255% over 2010. Gross margins improved from 33.65% in 2010 to 43.63% in 2011. Operating expenses as a percentage of sales decreased from 77.48% in 2010 to 51.82% in 2011. The Company has forecast revenues for 2012 to be in the range of \$57 to \$60 million, an increase of approximately 20% on a GAAP basis. Excluding equipment sales to Henry Schein to satisfy one-time prepaid purchase orders of approximately \$5.9 million during 2011, the midpoint of the Company's guidance for 2012 of \$58.5 million represents a year over year increase of 36 percent.

Perhaps most importantly, **CMR considers the Company's IP portfolio to be tremendously undervalued.** The fact that Biolase's patents are cited by a wide range of companies across many industries highlights the fact that this portfolio provides a source of many potential licensing, partnering, and other business opportunities as can be seen on the chart at the right. Biolase continues to build on this portfolio and with the strong management team in place and strategic vision of the CEO and CTO; we expect to see many future exciting innovations in both the dental and medical spaces.

*"BIOLASE stood out as the top company in its industry with the highest Patent Application CAGR and the highest number of patent applications on file . . . we are honored to recognize the Company's achievements in driving IP as an asset class and the impact the Company is making on innovation in America,"* commented Christopher A. Marlett, CEO of MDB Capital Group while awarding Biolase with the **Astrum award** at MDB Capital's "Best and Brightest" conference in 2011(below).

BIOLASE was recognized for its innovation leadership and the development of numerous disruptive technologies measured by the highest Patent Application compound annual growth rate (CAGR) and number of patent applications on file and adjusted for Application Conversion Rate.



Mining Biolase IP		Global Market Opportunity
Discipline		
Ophthalmology	Presbyopia	\$5 Billion
	Dry Eye	\$1.7 Billion
	Glaucoma	\$2.9 Billion
	Occuloplasty	\$3.4 Billion
Podiatry	Nail Fungus	\$1.26 Billion
Orthopedics	10 procedures	\$5.5 Billion
<b>Total</b>		<b>\$19.76 Billion</b>

Chart representing near-term commercialization opportunities

## Investment Considerations

Waterlase is a disruptive technology that has established a new standard of care for dentists with its tremendous clinical benefits and demonstrated ROI.

Biolase has amassed a large and valuable IP portfolio that can be further commercialized in dentistry, as well as other medical fields, either internally, through partnerships, and/or through licensing to third parties.

After breaking the speed barrier against conventional drills with its Waterlase iPlus and becoming comparable to high speed drills, the Company saw Waterlase sales increase 255% year over year.

The Company enjoys a very strong brand recognition as the market leader in laser dentistry and is growing internationally.

The global market for the Company's Waterlase system in dentistry alone is immense - currently Biolase only has 4% market penetration in the U.S. and less than 1% internationally.

Analysts are expecting sales growth of 30% or more in the next few years, with consensus target prices at or above \$7 per share.

After setbacks from previous management teams, the Company is back on a solid footing, both financially and operationally.

All key financial metrics have improved year over year since the new management team took control in 2010.

The CEO is a >5% stockholder with a symbolic salary of only \$1 per year to align his interest with that of the shareholders.

Last institutional financing by the Company in 2011 was at \$5.50 per share, and the Company's share price is currently trading near the lower end of its 52 week range - **at less than one times sales.**



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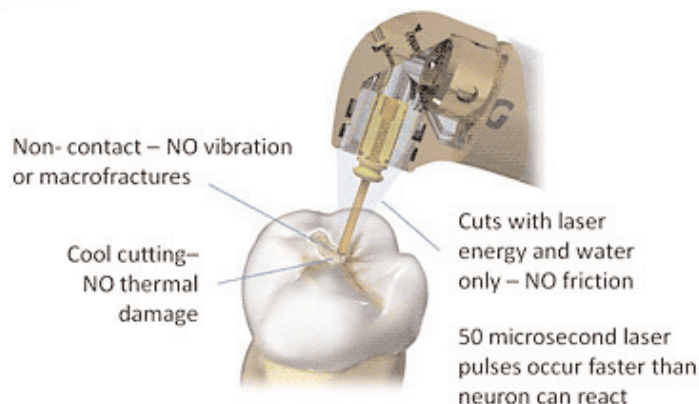
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This is the most complete family of dental laser and imaging solutions designed to match the needs of dentists and their patients perfectly.

## Waterlase®

With the Waterlase, Biolase has invented, patented and perfected a biological method to cut tissue. The laser energy from the Waterlase interacts with the water molecules within the tissue. The absorption of the laser energy creates an expansion and vaporization of the water molecules causing a biological ablation. This results in clinically superior incisions compared to any traditional instruments such as drills, scalpels and bone saws, commonly used in surgery and medicine.

The Waterlase energy also seals lymphatic vessels during the procedure, preventing histamine release and skipping the "wound phase" of pain and swelling in many cases. These lasers can cut either hard tissue (teeth and bone) or soft tissue (gum or skin) including enamel, the strongest of all human tissues. This novel and revolutionary technology can radically change the way surgery is performed on the human body.



Human tissue contains a large percentage of water. An instrument that can cut tissue using water is biologically beneficial and offers superior

advantages, such as greatly reduced trauma to the surrounding tissue and significantly enhanced recovery. Essentially, this innovative technology allows modern surgeons to perform minimally invasive procedures with a higher degree of precision and with very little tissue damage.

Traditional high-speed drills work by friction, which creates heat and causes pain. The use of drills and the pain induced requires local anesthesia, resulting in additional pain and numbness of the lips.

*"Before, they would get me numb, they'd leave the room, and I'd be sitting there, waiting for myself to get numb, and then they'd come back. This, they started right up." - T. Flagler, Oregon*

Drills also cause vibration, which also contributes to pain and can lead to micro fractures in the tooth. These micro fractures allow bacteria to penetrate the tooth resulting in further decay and weakening of the tooth structure.

The burs used by drills are generally reused by over 99% of dentists for multiple patients. Even after autoclaving these burs, 15% still carry pathogenic micro-organisms from patient to patient.

Therefore, the possibility of cross contamination due to reusing dental burs is very real and dangerous, carrying potentially grave consequences.

*"I still can't believe I came out of today's visit without any pain or numbness. Thank you Biolase!" - C. Stevens, Colorado*

Waterlase energy does not create heat or vibration, so there is essentially no pain. In addition, the Waterlase is bactericidal and anti-viral and, as such, essentially eliminates the risk of cross contamination.

"After having this procedure done with a WaterLase MD, I would never want to have another procedure done with your conventional drills, and knives, and sutures, and everything! There's no need for it." - M. Roybal, California

The economic value of adding a Waterlase system to a dentist's office is easily attained by examining the additional services a dentist can perform that were once outsourced to other specialists. Gingivectomies, perio treatments, crown lengthening, ulcer eliminations, and frenectomies are some of the treatments that can be included in a Waterlase dentist's list of services.

***"The Waterlase is an ATM for Dentists."***  
- Mike Coffelt, National Technology & Leasing

Without anesthesia, a dentist can work on all quadrants of a patient's mouth in the same visit, allowing better patient care and maximizing revenue. The return on investment for a dentist can be as much as five to ten times the cost of the laser. For the most productive dentists, this can mean revenue increases of 500% to 1,500%, tens of thousands of dollars per month.

The Waterlase systems incorporate an ergonomic hand piece and an extensive control panel located on the front of the system with precise preset functionality to control the mix of laser energy, air, and water, as well as the pulse rate. Each system also has been designed to be easily moved from operatory to operatory within a practice office.





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*"I was excited about what this could do for my patients. Once I did the hands-on clinic at a dental meeting, I was convinced that I needed to purchase and integrate the technology into my practice." - Dr. Jonathan Bregman*

Initial generations of the Waterlase, approved by the FDA and launched in 1998, were not quite as fast as the high-speed dental drill. This perceived drawback initially stifled greater adoption by dentists. Although it was widely acknowledged that the Waterlase offered significant clinical benefits to patients, including greater comfort and reduced risk of cross-contamination, the speed was an issue. This issue was resolved in early 2011 with the introduction of the Waterlase iPlus™ whose speed equals that of the conventional drill.

## Waterlase iPlus

The Waterlase iPlus, the Company's flagship laser product, is the most advanced laser in the market and the first major breakthrough in all-tissue laser technology since the Waterlase MD™ was introduced in 2005. The iPlus offers unprecedented speed and power, finally rivaling that of the drill.

Unlike dental lasers of the last decade, the Waterlase iPlus features a revolutionary and intuitive applications-based user interface with a

large high resolution touch screen programmed with over 50 factory-loaded procedure presets. Dentists can simply choose which procedure to perform -- from "bread and butter" restorative cases to specialty cases like periodontal or endodontic procedures -- and the Waterlase iPlus will program everything for the dentist, becoming the first truly "user friendly" dental laser.

*BIOLASE breaks  
the dental  
speed barrier.*

The most advanced, powerful and easiest to use dental laser ever.



## Waterlase MDX

The Company has also recently introduced the Waterlase MDX line, the natural evolution of the Waterlase MD Turbo. Where the iPlus was a completely new system using the established Waterlase technology, the MDX is a modernized MD Turbo. The MDX line offers superior performance and ease of use compared to the previous generations of Waterlase MD Turbos.

The 8-watt Waterlase MDX 300 improves on Biolase's time-tested Waterlase MD platform with an updated user interface, a new laser engine and a new lightweight and more flexible titanium fiber cable. The Waterlase MDX 450 increases the power output to 9 watts and cuts hard-tissue up to 70 percent faster than the Waterlase MDX 300, but is still approximately 40 percent slower than the Waterlase iPlus.

While the water performs the tissue cutting, the laser decontaminates the treated area, essentially resulting in a double benefit. With traditional drills, multiple uses of the same burr in treating multiple patients can lead to cross contamination with transmission of viruses and pathogens such as hepatitis B and HIV. There is no such risk with the Biolase system because it uses proprietary disposable tips. In fact, the Waterlase can even eliminate labial herpes and canker sores as a further benefit.

There are many additional procedures besides cutting tissue that make the Waterlase family of lasers a must for every dentist. For example, Biolase has received a patent for cleaning and disinfecting root canals using a unique radial firing tip. It relates to the use of a Waterlase endodontic probe to perform disinfection procedures within the root canal.

*"I didn't know its potential when I decided to buy it, but took a chance that I would find more and more uses for it. Well, after one year, I find myself using it all day, every day." - Dr. Mark Jankowski, Periodontist, Englewood CO*

*"Our current Endolase™ Root Canal Therapy System utilizing our Waterlase technology with our patented radial firing tips and clinically proven technique has shown the ability to reduce root canal bacterial levels by 99.7 percent. We believe that elements included in this new patent in combination with our other related IP may allow us to finally achieve the goal of every company in the industry -- complete root canal sterilization."*  
- Federico Pignatelli, Biolase CEO

The endodontic probe can be loaded with biologically-active particles, cleaning particles, biologically-active agents or cleaning agents for delivery to the target tissues. It also includes an adjustable channel-depth indicator, a practical way to measure and control the depth of the probe for root canal procedures as well as other features to further improve cleaning/disinfection.

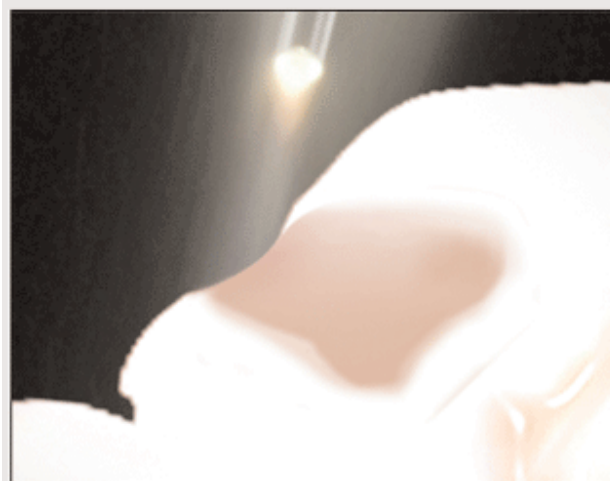


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*"Doing additional procedures, at the same visit, in the same or different quadrants are made easy with the Waterlase MD. Patients are grateful to have one visit rather than several to complete their dental treatment."*  
 - Dr. Linda Kronick, DMD

Another example of additional procedures available to Biolase dentists is crown lengthening. Before WaterLase, a patient seeking to correct a "gummy smile" would be referred from the dentist to an endodontic surgeon, who would then have to anesthetize the patient and use a scalpel to reshape the gums. This crown lengthening procedure has been described by dentists as one of the most painful and bloody procedures performed. Patients have to undergo a lengthy and painful recovery using traditional methods. Biolase offers superior quality and a new standard of care with Waterlase Crown Lengthening. The procedure takes about twenty minutes and is a painless, minimally invasive procedure. The recovery period is much shorter.

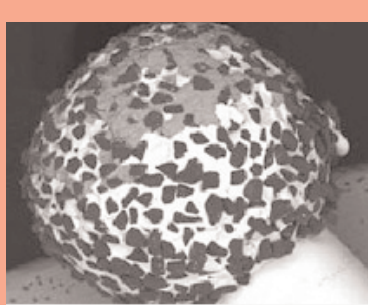


*A symbiotic combination of energized water particles from the patented air and water handpiece and the water contained in the tissue allows for a biological and effective micro-ablation of the tooth structure.*

Biolase made the strategic decision to apply Waterlase technology to the dental field first, as this is the world's largest medical community (over 140,000 dentists in the U.S. and over one million in the rest of the developed world), presenting a tremendous market opportunity measured in the billions of dollars. An additional penetration of a mere 2% of the North American market represents revenues in excess of \$1 billion to the Company and hundreds of millions of dollars in annual recurring revenues. *CMR believes that Biolase's growth is yet ahead of it.*

CMR can see the Waterlase technology penetrating dental offices at an accelerating rate as clinical advantages are understood and applied by dentists and as patients are made aware of the many benefits offered by the application of the technology. As dental patients grow older, there is greater danger from using anesthetics. This is where Waterlase shines. Now many procedures can be performed without numbing the mouth, eliminating possible complications.

### The Dangers of Dental Cross Contamination



The dental drill is a potentially hazardous source of cross contamination. The bur at the end of the drill is difficult to clean - in fact, 15% of sterilized burs and 76% of sterilized endodontic files carry pathogenic micro-organisms. Even autoclaving fails to completely decontaminate burs.



The Waterlase is a cleaner and safer dental instrument. Its tip surface does not harbor debris or bacteria and never comes in contact with the tooth surface. The laser energy is actually viricidal and bacteriicidal, helping to reduce the possibility of infection during procedures. Tips are used only once.

### Diode Lasers

In addition to the Waterlase systems described above, Biolase is also the leader in engineering and producing diode lasers for dental operations. Diode lasers are heat-generating lasers that are used for soft-tissue procedures, minor surgeries, and hygiene procedures such as sulcular debridement and deep pocket therapy. The lasers can reduce harmful bacteria and improve patients' health. Adding an "anti-bacteria" program to a dentist's practice can increase traffic and profit - a major selling point for dentists looking to create competitive advantages and additional revenue streams.



**Diolase™** (phasing out)



**iLase™**



**Epic 10™**



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*"WaterLase has always delivered the best patient comfort and clinical results. Now it's also number one in speed, simplicity and return on investment."*

– Dr. William Chen Granite City IL

In 2011, Biolase introduced its new handheld, battery operated **iLase™** diode laser system. The iLase is the only truly portable and affordable dental diode laser that provides minimally invasive solutions for common everyday soft tissue surgical and hygiene procedures. As both dentists and hygienists in the U.S. and Canada can use the iLase, the market for these devices is virtually double that of devices that are available to dentists only.

Featuring patent-pending finger switch activation, battery power, the unique 940 nm wavelength, and ComfortPulse cutting modality, the iLase is the only truly portable diode laser device for every dental operator. The iLase is CE mark-approved and received FDA 510(k) clearance in the United States in March 2010.

Unlike typical portable diode lasers that require a foot pedal and power cords, the iLase is completely self-contained in a single hand piece. The precise ergonomics of the iLase hand piece reduce fatigue for clinicians. The entire iLase hand piece, with battery and shroud attached, weighs less than 100 grams.



The key to the intuitive operation of the iLase is its exclusive, wraparound finger switch. Far more than a simple button, the switch is over an inch long and can be operated with light pressure anywhere along its circumference. The ability to engage the switch from different positions on the iLase allows maximum comfort and working efficiency, whether performing procedures in the anterior or posterior of the mouth.



The iLase proprietary single-use tips are bendable for maximum access to all areas of the mouth. Tips are available in a variety of lengths and diameters to provide the best clinical results for the procedure being performed, without changing fibers.

The iLase has a low entry price of approximately \$2,500 and can generate a whopping \$2,000 per unit in consumable revenues to the Company on an annual basis. As this appliance is approved for many hygienist procedures, the iLase virtually doubles the potential market opportunity as almost every dental office employs a hygienist.

## Epic 10™



Biolase recently introduced the Epic 10, which represents the next generation of Biolase's Total Diode Solution. When cleared by the FDA, this diode soft-tissue laser will have the shortest pulse available in the market today. Short pulses are known to cause less thermal damage in tissue and produce cleaner cuts. In addition, the Epic 10 will have a built-in battery for a full day of operation and will be used as a design platform to build more powerful versions with different combinations of laser wavelengths.

The Epic 10 features a 940nm wavelength with 10 watts of real power as well as an intuitive procedure-based graphical touch screen. It also uses Biolase's proprietary ComfortPulse control technology that helps to prevent potential tissue damage and keeps patients more comfortable by avoiding pain-inducing heat buildup at the surgical

site. Biolase plans to begin marketing this new diode laser system upon FDA approval of the Company's submitted 510(k) application, replacing the EZ Lase and Diolase systems.

## Laser Toothbrush - The First True High-Tech Toothbrush

In 2006, Biolase announced a strategic agreement with Procter and Gamble to develop a line of truly revolutionary personal toothbrushes utilizing patented Biolase technology that incorporates a low power diode laser. As they brush, users will be able to whiten their teeth, decontaminate their gums (killing bacteria), and desensitize areas. The toothbrush whitens teeth seven to eight shades. Additional news on the laser toothbrush is expected in the near future.

A line of home-use laser products launched with the marketing and distribution support of a company such as Procter and Gamble could result in a substantial increase in intrinsic value for Biolase shareholders. At CMR, we believe that the successful commercialization of this field of proprietary technology alone can drive the company's value back to historic highs.

*"My days are so much better knowing that I use these lasers to solve problems that present themselves on a daily basis...from desensitizing sensitive roots and painful Aphthous ulcers in less than a minute, to the advanced surgical procedures, many of which require only topical anesthetic. I have performed so many restorations with the minimal use of additional anesthetic that they have become routine."*

- Dr. Mark Stasiulis



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## Biolase Digital Imaging Division

In February 2011, Biolase announced that it had formed a new division, Biolase Imaging, to distribute state-of-the-art extra-oral and intra-oral dental imaging devices. The creation of Biolase Imaging enables the Company to offer high-quality diagnostic solutions to complement the minimally invasive dental treatment solutions offered by the Biolase Laser division. This makes Biolase unique as a technology solutions provider, offering both diagnostic and treatment solutions.

Computed tomography (CT) imaging, also referred to as a computed axial tomography (CAT) scan, involves the use of rotating x-ray equipment combined with a digital computer to obtain images of the body. CT imaging can provide

images of soft tissue, bone, muscle, and blood vessels, without sacrificing clarity. Cone Beam CT (CBCT) is a compact, faster and safer version of the regular CT. Through the use of a cone shaped X-Ray beam, the size of the scanner, radiation dosage, and time needed for scanning are all dramatically reduced.

*"Based on recent independent marketing studies, dental imaging and laser equipment are now at the top of the 'wish-list' of high-tech purchases of domestic dental practices, as there is a need to upgrade their equipment and tools for competitive reasons to cater to more demanding patients. Biolase, in introducing its new imaging product line, is expected to not only leverage its extensive and highly regarded brand recognition, but also its valuable access to more than 10,000 dental practices that currently use its laser products."*

- Federico Pignatelli



D3B CBCT

The Biolase Imaging D3D CBCT system has the lowest radiation for multiple field-of-view 3D CBCT systems. Its high-speed scan and pulsed x-ray lower radiation exposure, and the system actually reclines the patient, reducing image-blurring patient movement by 50%. This reduces the need for retakes and additional exposure. There are no restraints and no "closed in" feeling such as experienced in traditional CAT scans.

The multiple fields of view enable implant, orthodontic, endodontic, oral surgery, 3rd molar extractions, TMD, and other applications all in one system. No other multiple field-of-views CBCT provides as high a level of patient safety and comfort while obtaining the images needed for accurate diagnosis and precise treatment as the Biolase Imaging D3D.

In early 2012, Biolase announced that it had become the distributor of Cefla's NewTom Cone Beam 3D imaging systems to dentists, dental schools, and dental clinics in the U.S. and Canada. NewTom products are well respected in the medical and dental communities and considered among the highest quality 3D imaging systems in the world.

**NewTom**   
Cone Beam 3D Imaging

NewTom's CBCT is a compact version of standard CT imaging that uses a cone-shaped X-ray beam to obtain a multitude of radiographs that construct digital 3D models of maxillofacial anatomies. The NewTom 3D imaging products are typically used in highly complex dentistry cases by periodontists, endodontists, and oral surgeons where more involved and higher accuracy images are needed. They are increasingly being adopted by general practitioners for use in placing implants. This can be used in sitting, standing, and wheelchair positions.

Additional Biolase Imaging products include the Biolase Imaging™ iTab™ Touchscreen Viewer, iSensor™, iView™, and iGen™.

The Biolase Imaging iTab Touchscreen Viewer puts sharp, diagnostic quality x-ray images in the palm of the hand for diagnosis and presentation, instantly - no more transferring to images to a PC, opening practice management software, or searching patient records. The iTab's touchscreen lets dentists zoom in on high-resolution images, making case presentation close-up and personal. Its secure digital storage card holds hundreds of images, a rechargeable battery lasts all day, and its intraoral sensor is state of the art.



NewTom CBCT



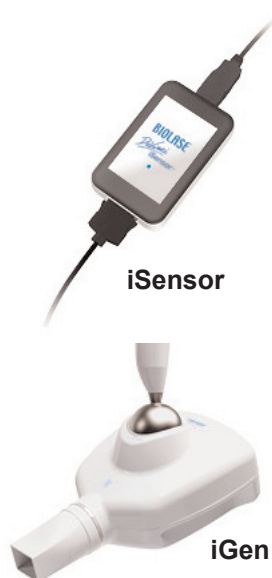
iTab



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**This is the most complete family of dental laser and imaging solutions designed to match the needs of dentists and their patients perfectly.**



The Biolase Imaging iSensor provides high definition diagnosis in an instant, allowing dentists to capture the highest quality images in the shortest time. Its 25lp/mm, 14-bit CMOS sensors capture over 16,000 gray shades using a highly sophisticated three-layer design, for consistently sharp images over time. The iSensor's powerful miniature control box transfers images to a PC as much as 20 times faster than the direct USB connection on other sensors. Compatible with most popular imaging software, it also comes with its own imaging software.



With the highest illumination in its category and progressive scan technology, the Biolase Imaging iView interoral camera is an easy way to increase patient case acceptance. It automatically adjusts brightness and focus to create sharp images to show patients immediately. No focusing or pushing buttons means sharp images every time.

The unique positioning system of the Biolase Imaging iGen generator lets you capture the highest precision images with ease, at low radiation dosages. Its full-swivel, ball-joint mechanism lets technicians place the generator in almost any position. Touch-sensitive pads provide power-assisted movement of the generator, and then lock it in place precisely where it's needed.

The Company began marketing its Biolase Imaging products in late 2011. The two most heavily attended areas of any dental convention today are the laser and imaging exhibits. Now Biolase has a strong presence in both of these areas, providing the Biolase direct sales team with multiple opportunities.

This is the next step in the evolution of the Biolase business model, as the Company begins to integrate the imaging and laser technologies together in a complete solution that it plans to call "Comfort Dentistry."

Biolase's goal is to provide the most accurate diagnosis, minimally invasive and high precision treatment, and superior clinical outcomes with a truly biological surgical laser approach coupled with the latest and safest digital imaging instruments, with wide applications in restorative and cosmetic dentistry.



## Consumables, Service and Warranty Revenues

Biolase manufactures and sells disposable products and accessories for all of its laser systems. The Waterlase and Diode systems use disposable laser tips of differing sizes and shapes depending on the procedures being performed. The Company also markets flexible fibers and hand pieces that dental practitioners will replace at some point after initially purchasing laser systems. For the ezLase system, Biolase sells tooth whitening gel kits. This recurring revenue stream will increase proportionally as the install base of laser systems grows.

The Waterlase laser systems sold domestically are covered by a warranty against defects in material and workmanship for a period of generally up to one-year while the Diode systems' warranty is generally for a period of up to two years from the date of sale to the end user. The Company offers extended warranties, producing an additional revenue stream. In addition, the Company offers service to repair out of warranty products.





*"I am significantly faster and much more efficient with any procedure using the iPlus laser than with anesthetic and a drill or a #15 blade. But what is most rewarding is the look on the patient's face when they hear that we are done. That truly is PRICELESS."*

– Dr. Jose Aunon

## Beyond Dental

While the Company has focused initially on dental applications, Biolase has an extensive patent portfolio and continues to advance their technology into other areas of the human body. Biolase Waterlase technology has been FDA indicated for use in ophthalmology, orthopedics, plastic surgery, dermatology, ear/nose/throat, podiatry, and general surgery. Biolase has been building an impressive intellectual property portfolio that specifically targets these markets.

CMR sees the Occulase division as the first of many potential medical divisions for Biolase. Management acknowledges the need to focus on dental laser and imaging technologies, but understands the many medical opportunities that exist for a laser technology that can change the way human tissue is cut and removed.

The first market that the company has publicly targeted is ophthalmology. In 2011 the company formed Occulase™ Inc., a wholly-owned subsidiary to focus on this particular field of medicine. Biolase has 15 grants and 20 more pending U.S. and International patents for "Methods for Treating Eye Conditions." The Company has wide coverage in the five ophthalmic patent families giving Occulase a broad range of potential innovations.

As one example, Biolase's technology is capable of restoring the elasticity of the optic nerve and muscle to allow the eye to refocus, virtually curing presbyopia. This is only one of the many applications being considered and developed by Occulase.

In addition to ophthalmology, the Company has announced activity in the following areas:

**Aesthetics**, where the company has various FDA approvals for applications in dermatology, plastic surgery, and oculoplastics. Biolase is currently investigating options for entering these markets in 2012.

**Pain Management**: The Company anticipates launching a new deep-tissue hand piece and upgraded laser for pain therapy in 2012, which will coincide with a new marketing campaign.

**Podiatry**: Biolase has found that its Diolase 10 technology is very effective in the treatment of nail fungus and is completing the clinical and regulatory requirements necessary to enter the market in 2012.

**Orthopedics**: The Company is working with several key manufacturers and universities to provide solutions that are not currently available. Biolase is investigating opportunities for several orthopedic applications and anticipates filing several 510(k) applications over the next 12 months.

### Pain Management

The Biolase diode laser can help to reduce inflammation and allows blood flow to be re-established, providing additional healing and oxygen to the tissue. Dr. Michael Sheps is the co-founder and Clinic Director of the All Back and Joint Care Medical Group in West Los Angeles. Established in 1988 at its current location, in 1993 he expanded his private practice to include top physicians, an acupuncturist, athletic trainers and additional chiropractors all with a minimum of 15 years of practice.

After five years of clinical laser experience with earlier generation lasers, Dr. Sheps worked closely with the R & D team of BIOLASE Technology to develop the Diolase 10™ laser and delivery system designed specifically for chiropractic, orthopedic, sports medicine and pain center markets.

Low level laser therapy (LLLT) devices have built the foundation for treatment of chronic and acute pain for over a decade. Today, through the ingenuity of Dr. Sheps and his partnership with BIOLASE Technology, a new revolutionary tool has emerged to relieve pain: introducing the Diolase 10. Diolase 10 combines a unique wavelength, 940nm, and high power to provide optimal tissue penetration and enhanced biostimulatory effects, resulting in more effective treatment of acute and chronic pain.

High Intensity Laser Therapy is a non-invasive, pain and side effect free solution for relief of pain in muscles, nerves, ligaments, tendons, joints and scar tissue. The Diolase 10 delivers more power and deeper penetration, which means faster recovery time and fewer treatments. As mentioned earlier, management intends to replace the EZ Lase and Diolase systems with the Epic 10.

Throughout its development, numerous clinical success stories developed including Olympic athletes who needed to heal quickly and return to competition, celebrities, global business leaders, and geriatrics who had virtually given up on finding relief from their pain and related conditions.





*"If it weren't for Dr. Sheps and his laser, I don't think I would have performed in 2010 at such a high level. My recovery has been amazing!"*  
- Mattie Larson, US Olympic Gymnast

## Market Opportunities

The global demand for dental services will continue to grow due to the increased awareness of the benefits associated with dental and overall oral care. A healthy mouth is a requisite for a truly healthy body. The demand for hi-tech dental procedures such as laser surgery is expected to rapidly accelerate, as more patients demand the comfort and convenience afforded by this technology.

One question asked by many potential investors is this: With such a great technology why aren't you seeing higher adoption numbers? The answer is two-fold. First of all, any new surgical procedure requires education. Biolase is focused on developing relationships with the major dental schools and educational organizations to educate dentists on this technology. The second is speed. Until 2011 and the introduction of the Waterlase iPlus, dental drills were faster than lasers on hard tissue. The change with the speed of the iPlus has clearly spurred an increase in sales of Waterlase products by 255% over the previous year's sales and bodes well for future sales and adoption of Waterlase.

An additional factor was the change from a direct selling model to distributing through an exclusive agreement with Henry Schein, one of the largest dental supply houses in the world. The sale of Waterlase systems is technical and requires expertise, and this style of selling did not fit the Schein model. After several years of declining sales the company has moved back to direct selling, and sales have been on the rise ever since.

Biolase has a worldwide install base of over 20,000 Waterlase and diode laser systems and is growing rapidly. This base is particularly suited for introduction to the Company's imaging line, as well as complementary consumables, and other laser products.

The iLase represents a significant market opportunity, as it is unique in the market and an installed base of 10,000 devices could generate an annual recurring revenue stream of approximately **\$15 - \$20 million per year** in consumables alone. Considering the fact that the potential market size for the iLase is double that of the one for Waterlase systems (since it can be used by both dentists and hygienists), the true market potential for this product can easily be estimated as a large one coupled with significant recurring revenue amounts from consumables.

Patients equate greater standards of care with higher uses of technology, and this plays a role in the acceleration of demand growth for Biolase products in particular. By becoming the **Total Technology Solution Provider** to dentists worldwide, the Company has an opportunity to gain market share and extend its brand internationally.

As noted, Biolase is just beginning to tap the market opportunities outside of the dental area. As the Company develops and receives approval for applications in other surgical areas such as ophthalmology, spinal surgery, orthopedics, etc. the market value of the company should continue to grow substantially.

## CMR Investment Methodology

Capital Market Relations looks for companies that demonstrate a disruptive technology focus and have developed a strong intellectual property portfolio. Biolase distinctly fits this profile, and we believe that the market will eventually recognize that the Company's current market capitalization does not reflect the Company's prospects as a global market leader of new dental and medical standards of care.

Biolase continues to invest resources in R&D, and is committed to protecting its intellectual property through patent strategies, corporate policies, and working with leading IP strategists.

At the same time, by returning the Company to a business model that initially drove market valuations to historic highs, management has committed to a global marketing and sales strategy that we believe can effectively monetize the company's IP portfolio.

A case in point is the continuing work the Company is doing with Proctor and Gamble to develop new consumer-related products based upon Biolase's patented technologies. Another is the formation of Occulase to address ophthalmology.

Management has consistently reiterated its focus on building a solid foundation upon its existing dental laser technology, and this will continue to be the primary driver of the company's short term success. Extending this brand into complementary areas should broaden the base and provide for a long-term diversified business model.

## Company Statistics

Publicly Traded: Symbol BIOL  
 Stock Price (8/31/12): \$1.69\*  
 52-week High/Low: \$1.50 - \$3.86\*  
 2011 Revenues: \$48.9 million\*\*  
 2012 Est Revenues: \$57-60 million  
 Market Capitalization: \$52.5 million\*  
 Development Stage: Growth

\*Source: Yahoo! Finance as of close of business August 31, 2012

\*\*Source: SEC 10K Filing March 12, 2012



## Operations and Management

Under the leadership of Mr. Federico Pignatelli, the Company has built a strong and capable management team.

Fred Furry was named CFO in late 2010 and added the title of COO in October 2011. He is a certified public accountant (inactive) with expertise in audit, U.S. Generally Accepted Accounting Principles (U.S. GAAP) and Securities and Exchange Commission (SEC) reporting. Mr. Furry has over 20 years of experience specializing in the high-tech and manufacturing industries, including 18 while in public accounting working as a partner for Windes & McClaughry and a manager for Pricewaterhouse Coopers.

Dmitri Boutossov is the Company's Chief Technology Officer. He has more than 18 years in developing laser technologies for dentistry and medical applications in the U.S. and Europe. He has authored and co-authored more than 20 U.S. and international patents and patent applications, and more than 25 publications in peer reviewed magazines and conferences. Prior to his tenure at Biolase, Mr. Boutossov was also a technical manager with Laser Medical Systems, GmbH, in Vienna, Austria, and a research engineer with Ioffe Institute, Academy of Sciences, in St. Petersburg, Russia, one of the most recognized science schools worldwide.

Richard Whipp is Director of Operations. He has over 30 years of experience in manufacturing and operations, and has spent the last 13 years in operations at Culver City, CA-based Discus Dental, a dental services and software division of Philips Electronics. Prior to working at Discus Dental, Mr. Whipp worked from 1992-1998 at Torrance, CA-based Leica Geosystems, a manufacturer of high-tech marine navigation and survey GPS equipment. As the Director of Operations, he was responsible for all plant operations and managed all manufacturing, planning, purchasing, service, warehouse and logistics operations.

William E. Brown, VP of Sales and Marketing, has more than 30 years of experience in global medical/dental companies, with an emphasis in lasers. Mr. Brown was a co-founder of Kreativ, Inc., an international high tech dental equipment company, where he served from 1995 to 1999. Following an acquisition in 1999 by Welch-Allyn, Inc., he served as Director of New Product Development for Welch-Allyn Kreativ and member of the Board of Directors until 2002. Prior to this, he spent five years with HGM Medical Laser Systems, Inc., an international medical laser manufacturer, as Vice President of Sales and Marketing on a global basis.

*"Since purchasing my WaterLase many people have asked me, "Are you making more money with it?" "Does it cover your lease payments?" The answer is yes, but it really doesn't matter. **The WaterLase has made me a better dentist in so many ways.** No one ever asks if your dental chair makes you money – the reality is that you can't practice without one. The same is true with the WaterLase – you can't practice the best dentistry without one."*

**– Dr. David Greene New York NY**

## Investment Considerations

- **Market Leader**
- **Innovative Culture**
- **Experienced Management**
- **Top Tier Marketing Partners**



- **New Purchase Orders**
- **Reduced Overhead**
- **New Governance and Management**
- **Classic Turnaround**

## More Information:

**Chris Rosgen**  
**949.481.9739**

The statements included in this executive summary concerning predictions of economic performance and management's plans and objectives constitute forward-looking statements made pursuant to the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended. These statements involve risks and uncertainties that could cause actual results to differ materially from the forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this summary. Biolase Technology, Inc. undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Capital Market Relations is being compensated by Biolase Technology Inc. in the amount of \$6,000 per month to conduct an investor relations campaign and the principals have received 100,000 options to purchase stock in Biolase at \$.74 per share. Readers should refer to Biolase filings with the Securities and Exchange Commission, available at [www.sec.gov](http://www.sec.gov) for more information regarding Biolase and its business.



## Addendum September 2012

### Recent Events

#### Education

In keeping with management's commitment to leadership in the dental laser field, the company has initiated several new programs aimed at educating and informing dentists about the superior standard of care offered by laser technology.

At the end of July, Biolase announced that it had signed a long-term agreement with world renowned laser dentistry expert Professor and Doctor Norbert Gutknecht and the Aachen Center for Laser Dentistry (AALZ) in Germany. The partnership is designed to promote laser dentistry worldwide through clinical laser education, training and research.

As part of the agreement, Prof. Dr. Gutknecht will direct courses and oversee research that is critical for the broader acceptance of high-tech laser dentistry. In addition, he has agreed to become a member of the BIOLASE Dental Advisory Board. He is on the faculty of the Department of Restorative Dentistry at RWTH Aachen University, School of Dentistry, Aachen, Germany, and is one of the world's most widely published and highly respected researchers and educators in laser dentistry.

On July 24, Biolase announced the opening of the technology and training center at its corporate headquarters in Irvine, CA. The state-of-the-art facility has a hands-on lab featuring the Company's patented Waterlase dental laser technology, proprietary EPIC line of diode lasers and fully functional 3D digital imaging, including NewTom Cone Beam 3D imaging and BIOLASE DaVinci Imaging™ products. The training center will provide introductory and specialized training sessions for dental professionals seeking proficiency and certification training utilizing best-in-class BIOLASE products. The facility will also be used to continuously train and clinically educate the Company's sales team.

This year marked the re-emergence of Biolase' World Clinical Laser and Imaging Institute (WCLI), the world's largest dental laser education organization, with over 19,000 members. WCLI is expanding its educational programs beyond lasers to include other technologies such as 3D CBCT, digital imaging, and CAD/CAM. The WCLI Institute combines education, fellowship, and fun at major annual symposiums in the US, Canada, Europe, and the Far East and at many local and regional symposiums and seminars in the US and other countries. These meetings are excellent opportunities to learn the latest approaches to integrating technology to improve every aspect of the dental practice. Biolase is designated as an Approved PACE Program Provider by the Academy of General Dentistry. The formal continuing education programs of this program provider are accepted by AGD for Fellowship, Mastership and membership maintenance credit.

#### New Technology

Earlier this month, Biolase announced that it had entered a definitive five-year agreement with Copenhagen-based 3Shape Corporation, making Biolase a distributor of 3Shape's TRIOS® intra-oral scanning technologies for digital impression-taking solutions in the U.S. and Canada. The TRIOS next-generation digital impression solution is designed to make impression taking easier, faster, extremely detailed, and far more efficient for dentists. 3Shape is a Danish company specializing in the development and marketing of 3D scanners and CAD/CAM software solutions designed for the creation, processing, analysis and management of high-quality 3D data for application in complex manufacturing processes. 3Shape and Biolase share the vision of the coming age of the "full digital dental lab," and 3Shape's 130 plus developers provide superior innovation power toward reaching this goal.

#### New Patent

On August 1, the company announced that the U.S. Patent and Trademark Office had awarded Biolase a new patent, number 8,221,117 B2, titled, "Probes and Biofluids for Treating and Removing Deposits from Tissue Surfaces." The new patent expands the Company's intellectual property ("IP") portfolio in the area of laser endodontics to a total of 14 issued and 19 pending patents, with 8 issued and 8 pending in the U.S. and 6 issued and 11 pending in international markets. BIOLASE currently has a total of 159 issued and 130 pending patents. As we have mentioned in our report, we believe this to be a significant asset.

#### Infrastructure

Near the end of July the company completed its initial build-out of the inside sales organization at its corporate headquarters based in Irvine, California. This group is currently made up of 5 inside sales representatives and lead generators, who work in partnership with the direct sales team to maximize sales, leverage the existing installed customer base, and drive smaller deals to closure. Biolase plans to grow the group to between 8 and 10 by the end of the year. This group will be responsible for ongoing contact and rapport building with existing and potential Biolase customers, to ensure customer satisfaction and to determine what other products and services clients may need.