



*Lasertechnique  
for  
Dermatology  
and  
Aesthetics*

*Find more about:*

- *How ELVeS™ makes diseased veins disappear*
- *Our Business Unit Dermatology and Aesthetics*
- *The development of the biolitec-share*

Dear *biolitec* friends,

you are holding the first issue of the *biolitec magazine* in your hand. Every three months, we will use this attractive format to inform you about current projects, developments in the capital markets, our employees and upcoming events.

Biomedical technology benefits from the most diverse advances in the areas of both science and technology. Clear trends toward minimally invasive surgical procedures and the integration of biotechnology and medical technology are apparent. *biolitec* AG has assumed an international pioneering role in an innovative area. We are working intensively to develop photodynamic substances with very promising results so far. *biolitec* is the only company worldwide that combines all necessary core competencies in the fields of lasers, optical fibers and substances. Our current core business is the production and distribution of lasers, which are highly valued by physicians due to their size and diverse applications in minimally invasive therapy and are therefore in great demand.



Dr. Wolfgang Neuberger

This is also the reason why our lasers are increasingly being used in the fields of aesthetics and dermatology. Therefore, the cover story of the first *biolitec magazine* deals with varicose veins and their treatment with *biolitec* lasers.

Furthermore, we introduce our dermatology and aesthetics business unit in this issue.

Since one of *biolitec*'s important sales regions is the United States, *biolitec magazine* also presents David E. Vivian, Director of New Product Business Development and Director of U.S. Sales.

Please help us decide whether we keep the contents and structure of *biolitec magazine* in the present form. Please mail your thoughts and opinions to **biolitec-magazine@biolitec.de**.

We hope you enjoy our new magazine.

Cordially yours,



Dr. Wolfgang Neuberger

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## Gentle vein treatment through laser radiation ELVeS™ - A new surgical solution on the rise in the medical sector

### *The minimally invasive Endo Laser Vein System (ELVeS™) treats diseased veins from the inside*

Vein disorders are widespread. In Germany, about 70 percent of all adults suffer from pathological changes of the venous system, which especially affect the veins of the legs.

### *The use of lasers is revolutionary*

During the past few years, the range of laser applications in phlebology has increased significantly. Based on the biolitec ELVeS™ method it is possible today to treat various types of varicose veins (varices)



Diode Laser  
Ceralas D 980

using a systemic approach which combines the Ceralas D 980 diode laser and dedicated specialized delivery systems.

In addition to the treatment of small teleangiectasia and spider veins, the laser is also suited for the treatment of varices caused by incompetence of the long and short saphenous veins, as well as acting upon the lateral and reticular veins.

Compared to conventional vein therapy such as the so-called "stripping" procedure, the ELVeS™ technique has a combination of advantages: it is minimally invasive and therefore a less traumatic procedure with optimal cosmetic effect and excellent and extremely promising results: the patient walks in for the treatment and walks out with his/her varices problems solved within one hour!

### *The disorder begins gradually*

What begins with apparently harmless problems such as swelling and discoloration of the ankles or the first appearance of fine, branched lines on thighs and calves will often lead to chronic disorders. The symptoms, which are initially perceived as a mere cosmetic nuisance will frequently result in serious health problems.

In serious cases, particularly varices of the saphenous veins and their laterals lead to serious complications such as thrombosis



Case  
with  
Handhold  
pieces

and pulmonary embolism, which are the cause of death for many people in Germany every year. In view of such dramatic facts, the medical grounds for a safe and low-risk treatment of varices through endoluminal laser therapy is becoming increasingly significant. "Due to the rapid development of

new laser technologies, laser therapy – especially in the field of skin and vascular disorders – has recently provided new methods that give rise to the hope for promising, low-risk therapies with few side effects,” phlebologist N. Schäfer commented on the success of laser therapy in the online journal of Deutsche Venenliga e.V. (German Vein Association).

### *Tissue-friendly methods leave no scars*

A minimally invasive technique is applied when treating varices of the saphenous veins with biolitec lasers. The varices are located using ultrasound, and a local anesthetic is administered to the affected area. In the next step, the optical fiber is introduced into the vein via a catheter and moved forward to the section to be treated.

In addition to the guiding beam, the fiber’s correct position is monitored by an ultrasound device. The laser radiation is introduced in pulse mode and guided along the vein’s lumen by slowly and continuously retracting the fiber. The transformation of the laser radiation to heat results in the thermal shrinkage and dissolution of tissue structure, which ultimately leads to the closure of the varicose veins. Due to the optimal absorption spectrum of 980 nm, the neighboring tissue areas will remain fully intact. The closed vein remains in its natural position in the body, which reduces the invasiveness of surgery to a minimum.

The incision required for this surgical procedure is very small and usually heals without forming a scar.

The treatment duration of this method is relatively short. The entire procedure takes a maximum of 45 minutes.

Even the so-called reticular varices, which are much smaller on average, can be treated successfully through biolitec’s endoluminal laser therapy: Using extremely fine fibers of 200 µm in diameter, these are introduced via a fine needle at several locations along the expanded blood vessel.

Biolitec lasers can also be used in the external “non-contact” treatment of superficial veins. In this procedure, teleangiectasia and the finest spider veins are made invisible by passing the 980 nm laserlight with a special applicator over the skin. The fine vessels are obliterated quickly and gently by coagulation and vaporization of blood contained within them.

The ELVeS™ method is well tolerated and has few side effects. A large proportion of the patients treated in this way are able to resume their normal activities immediately following surgery.

Usually, the procedure causes no hematoma nor significant pain, at most the patient may experience a slight ache along the shrunken veins, for which local cooling and an anti-inflammatory ointment will provide quick and reliable relief.



## *The Endo Laser Vein System saves costs and has many applications*

The special capabilities of the Ceralas D 980 diode laser is scientifically proven. Photobiological studies have shown that the 980 nm laser radiation of the Ceralas D is optimally absorbed by water and the oxygen-enriched hemoglobin (oxyhemoglobin). Due to the optimal absorption of the laser radiation, veins are closed in a more gentle fashion than is accomplished by other devices on the market, which operate at other wave lengths.

Furthermore, almost all forms of varices can be treated endoluminally using one single device with variable sized fibers from 200 µm to 600 µm or by non-contact method. This is a competitive advantage that will pay off multiple times for specialized physicians, since the same device can also be used therapeutically for treatment of leg ulcers or slow healing wounds, that frequently also occur in patients' suffering from venous disorders.

The remarkable outcome is, that ELVeS™ can be used as an effective tool for a whole variety of phlebology procedures.

The resulting economic advantages are obvious and add one more attractive argument to the comprehensive spectrum of this versatile medical system.

Due to its practical size and its many applications, ELVeS™ is well suited for phlebology practices as well as out-patient clinics and hospitals.

## *Success across the board*

A remarkable and measurable achievement: the sales figures in the Phlebology business division are increasing continuously with a leading market position for biolitec in countries such as Germany and France.

Through its evolutionary success and the commitment of highly trained specialized physicians, biolitec's ELVeS™ laser therapy will help many people achieve a pain-free future and a greater quality of life – which is an important motivation for biolitec AG to continuously expand this field.

Sources: biolitec AG  
Deutsche Venenliga e.V.  
(German Vein Association)

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Dear readers,

In this series, we will present the business units of biolitec AG. In addition to providing background information about current technological and scientific research, the *biolitec magazine* will also inform you about practical applications and the market potential and activities of the various business units.

## Advanced laser technology for health and beauty

*The development of optimized laser systems opens up diverse applications in the Dermatology and Aesthetics business unit*



The trend for an attractive-appearance and good health is a key feature of our time. For many people, medical laser technology makes an important contribution towards health, quality of life and beauty for many people, even though this contribution frequently still takes place behind closed doors.

The applications of modern laser therapy are diverse and range from the gentle removal of birthmarks and skin tumors, to pain-free and minimally invasive vein treatment, accelerated wound healing for patients with ulcerated wounds such as bed sores or the secondary disorders of diabetes patients.

"In many cases, there is no clear separation between medical and cosmetic applications," says Marc Richly, Medical Sales Manager for the Dermatology and Aesthetics business unit of biolitec in Bonn. For example, unsightly birthmarks can be a strictly aesthetic and cosmetic problem. However, other skin abnormalities such as the development and growth of a tumor represent a serious health risk.



Since the lasers developed by biolitec have different specifications, they are optimized for the treatment of very different clinical conditions. "The green laser light of our Ceralas G 5 device is excellently absorbed by melanin and hemoglobin," says Dr. Marlies Zedlacher, Product Manager in the

Dermatology and Aesthetics business unit.

"Therefore, this laser is particularly well suited for treating pigmented and vascular lesions.

With the fine-level settings, even the sensitive skin areas of the face can be treated very well."

As a complement to the Ceralas G 5 laser, the Ceralas D is ideally suited for minimally invasive vein treatments. The 980 nm laser radiation is predominantly absorbed by hemoglobin and water. In the case of endoluminal laser therapy for treatment of varicose veins, this leads to effective obliteration of the vein wall without impact on the skin layers above. Furthermore, this laser can be optimally used for the external treatment of spider veins and chronic wounds for example.

Owing to their broad applications for a range of therapies, biolitec laser systems are seen as a worthwhile investment by the medical community. Dermatologists, phlebologists, surgeons and radiologists therefore represent the main customer groups for the targeted expansion of the Dermatology and Aesthetics business unit.

It is currently estimated that about 2.5 percent of the population in Europe, the United States and Japan suffer from chronic wounds, showing that this is a lucrative and dynamically growing market segment.

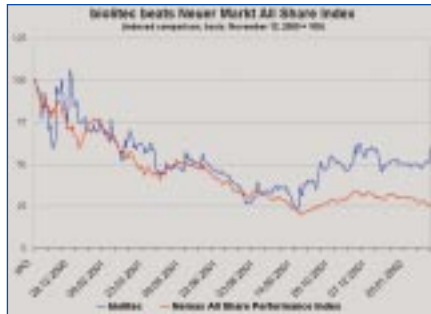
As aesthetic and dermatology treatments become increasingly popular and published analysts at SG Cowen expect annual growth rates of 44 percent for these applications of laser devices. While there are several providers in the market for cosmetic and dermatological applications, biolitec currently has only one serious competitor in the field of vein therapy.

The treatment of facial or skin tumors with photodynamic therapy (PDT) also offers additional interesting potential. The continuing, innovative development of the Dermatology and Aesthetics business unit, benefits directly from biolitec AG's lead in PDT technology and know-how.

## Development since the IPO

In November 2000, biolitec had its highly anticipated initial public offering in the "Neuer Markt" segment of the Frankfurt stock exchange. At that point in time, the share prices of the companies with a "Neuer Markt" listing were already far below their previous highs. Despite a difficult market environment at the time, the stock was offered successfully.

On the day of the IPO, the Nemax All Share Index was at 3,715 points. Currently, the index hovers around the 1,100 point



mark, after having dropped to below 800 points for a while in September of 2001. Of course, biolitec stock could not remain completely unaffected by this

market trend. However, the biolitec share price has recovered from this all-time low of September 2001 by more than 100 percent and is currently quoted at about 9 Euro. Following the publication of the year-end results 2000/2001 (the fiscal year ends on June 30), the share price experienced a strong boost. Contrary to the loss forecast for the previous fiscal year at the time of the IPO, biolitec was able to record a significant net profit.

This economic success was also praised by the owners, the shareholders of biolitec AG, during the first general meeting following the initial public offering in November of last year. "Our main goal is to achieve a sustained increase in our corporate value," said Dr. Wolfgang Neuberger, chairman of the board of management of biolitec AG.

biolitec is expecting similarly positive results for the current fiscal year, even if guarded investment behavior is currently

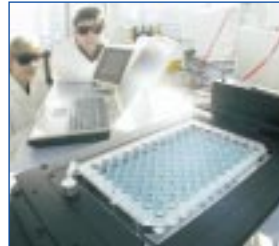
detectable also particularly in the United States, one of the main sales regions of biolitec.

To provide existing and potential shareholders with an opportunity to assess the company in a realistic and fair manner, biolitec is implementing a proactive investor relations program. Apart from quarterly reports and mandatory news releases, our shareholder hotline provides contacts for all stock-related questions almost anytime. Our activities are complemented by comprehensive press releases and interviews, extensive information on our website, active dissemination of information via our investor relations database and regular discussions with analysts and institutional investors.

Plans for this year include setting up a chat module on our website at [www.biolitec.de](http://www.biolitec.de) to provide private shareholders with an opportunity to communicate directly with the board of management on the day the quarterly figures are published. This URL also includes an entry form that can be used by potential subscribers to register and automatically receive the latest information on biolitec.

Equal treatment of target groups, the continuous improvement of our information standard, transparency and currency are the fundamental guiding principles of our investor relations work.

The financial community's consistently positive opinion of biolitec is reflected by their ratings and assessments. Opinions range from "attractive" and "tip of the week" to "top recommendation" and a frequently voiced, clear "buy".



### Important investor relations dates:

February 26, 2002	Publication of the six-month figures
May 2002	Publication of the nine-month figures
September 2002	Financial statements press conference and analyst conference
October 2002	General assembly

### *biolitec AG extends activities to Lille, France*

On February 12, 2002, biolitec opened a subsidiary based in the bio business park EURASANTE in Lille, France. The French subsidiary biolitec SARL will advance research and development especially in the field of dermatology and cosmetics. Furthermore, the company will establish a new marketing and sales office that will develop the French market for lasers, PDT and cosmetic applications such as permanent hair removal.



### *biolitec presents to the international financial community*

Represented by CEO Dr. Wolfgang Neuberger, biolitec AG presented its activities to the international financial community and to business and finance media on January 24, 2002, during "Berlin MedTech Day" in the German capital Berlin. This financial market forum provided participating analysts and investors with an opportunity to get to know the leading German medical technology companies in one day.

A recording of the biolitec presentation is available in the Investor Relations section of our website at [www.biolitec.de](http://www.biolitec.de)

**2<sup>nd</sup> Berlin MedTech Day**



# Upcoming Events and Fairs



biolitec timetable (excerpt)

Date	Event	Location	Business Unit
<b>March 2002</b>			
7 – 9 March 2002	2002 Midwest Podiatry Conference	Chicago	Dermatology
8 – 9 March 2002	16. Internationaler Frankfurter Workshop für Phlebologie	Frankfurt	Dermatology
8 – 9 March 2002	Lasers In Dentistry	Boston	Dental
9 – 11 March 2002	International Dental Conference and Arab Dental Exhibition	Dubai	Dental
13 – 16 March 2002	Academy of Laser Dentistry Show	San Diego	Dental
14 – 16 March 2002	XXXII Kongress der Deutschen Gesellschaft für Endoskopie und Bildgebende Verfahren e.V.	Munich	Tumor and Dysplasia
14 – 17 March 2002	18 <sup>th</sup> Korea International Medical Clinical Laboratories & Hospital Equipment Show	Seoul	Dental
18 – 21 March 2002	Pittcon	New Orleans	Dental
22 – 24 March 2002	Hinman Dental 2002	Atlanta	Dental
<b>April 2002</b>			
5 – 7 April 2002	California Dental Association	Anaheim	Dental
8 – 10 April 2002	American Chemical Society	Orlando	Industrial
18 – 20 April 2002	The Super Seminar 2002	Las Vegas	Dermatology
19 – 20 April 2002	Lasers In Dentistry	San Antonio	Dental
21 – 25 April 2002	XXIX International Congress of Ophthalmology	Sydney	Ophthalmology
25 – 28 April 2002	Gynecological Endoscopy and Innovative Surgery	Berlin	Tumor and Dysplasia
26 – 27 April 2002	Lasers In Dentistry	Chicago	Dental
27 – 29 April 2002	Symp. on Advanced Wound Care	Baltimore	Dermatology
28 – 30 April 2002	2002 International Medicine & Equipment Exhibition on Cancer Prevention & Treatment	Guangzhou, China	
<b>May 2002</b>			
2 – 3 May 2002	1 <sup>st</sup> International Workshop on Eustachian Tube Management and Surgery	Genf	Tumor and Dysplasia
2 – 4 May 2002	UK and Ireland Dental Conference	Belfast	Dental
2 – 4 May 2002	Dental Express International	Budapest	Dental
8 – 12 May 2002	Gemeinsame Jahresversammlung: Deutsche Gesellschaft für HNO, Kopf- und Hals-Chirurgie – Österreichische Gesellschaft für HNO, Kopf- und Hals-Chirurgie – Schweizerische Gesellschaft für Oto-Rhino-Laryngologie, Hals- und Gesichtschirurgie	Baden-Baden	Tumor and Dysplasia
10 – 11 May 2002	Lasers In Dentistry	New York	Dental
11 – 15 May 2002	Congress of the Societe Francaise d'Ophtalmologie	Paris	Ophthalmology
16 – 18 May 2002	7 <sup>th</sup> Southeast Asian Healthcare Show & Conferences	Kuala Lumpur	PDT, Dental, Ophthalmology
17 – 18 May 2002	Lasers In Dentistry	Washington	Dental
21 – 23 May 2002	CLEO	Long Beach	Industrial
29 May – 1 June 2002	X Congreso Panamericano y IV Congreso Venezolano de Flebología y Linfología	Venezuela	Dermatology

## David E. Vivian

David E. Vivian joined biolitec, Inc. in September of 2001 as Director, New Product Business Development. The additional responsibility as Director of U.S. Sales was made official as of January 2002.

*biolitec magazine* met David in East Longmeadow where he gave us the following interview:

**bm: Mr. Vivian: What did you do before you joined biolitec?**

David Vivian: I came to biolitec from Diomed, Inc. where I was General Manager of the US office, responsible for the day-to-day management of the operations including all sales and marketing activities in North America.

I was hired by Diomed in November, 1997, as Vice President of Sales, North America to launch an aesthetic line of lasers.

**bm: Except Diomed and biolitec, what other milestones have you achieved within your career?**

David Vivian: I played key roles in the launching of the first FDA approved diode laser for use with Photofrin in the field of Photodynamic Therapy and worked with the first US Doctor to treat varicose veins with a diode laser. Prior to Diomed, I spent the last 7 years with

Summit Technology, Inc. helping launch the first approved excimer laser for ophthalmology in the United States. My last position was Director of Sales for North America. I also have 5 years sales experience with two different divisions of Johnson & Johnson. I received a Bachelor of Arts Degree in Economics from Washington and Jefferson



College, Washington, PA in 1978 and have accrued over 23 years of professional sales and management experience.

**bm: What was the main reason for you to come to biolitec?**

David Vivian: biolitec is a very solid and innovative company. It's very foundation is its greatest strength – having been built on superior fiber and laser technology, with a passion to expand the possibilities of medical science. The organization is recruiting top people in the field and others with valuable outside experience. I wanted to be a part of this exciting, fast-growing company with such great potential.

**bm: What is the main difference between the US and the European market and what is the potential like in the USA?**

David Vivian: The main difference between the US and European markets is the regulatory environment in which we must sell in the US. FDA regulations can be difficult hurdles to overcome. However, once FDA clearance is received the potential is great. The US is the largest market for our products and will drive the future success of our organisation.

**bm: Now life is not only just work. Are you married and what are your main activities beside your job?**

David Vivian: I am married to my wonderful wife Deborah of fifteen years and have two beautiful daughters, Lauren, age 12, and Lindsey, age 7. All free time is spent with the family, skiing, swimming and playing soccer.

**bm: Mr. Vivian, thank you very much for the interview.**

## Company facts

Internet-URL	<a href="http://www.biolitec.de">http://www.biolitec.de</a>
Security Code (WKN)	521340
Stock Exchange	Neuer Markt (NM)
NM Segment	Med Tech & Health Care
Sales 2000/2001	€ 18,530,000
EBIT 2000/2001	€ 2,265,000
Earnings per share 2000/2001	€ 0.18
Number of employees	163 (December 31, 2001)
Board of Management	Dr. Wolfgang Neuberger (Chairman) August Günter (Finance) Dr. Stefan Spaniol (Research & Development) Dr. Armin Kaus (Marketing & Sales)
Subsidiaries	AndaOptec Ltd., Livani, Latvia biolitec Inc., East Longmeadow, USA biolitec Ltd., Wicklow, Ireland biolitec (M) Sdn. Bhd., Petaling Jaya, Selangor, Malaysia biolitec SARL, Lille, France CeramOptec Industries Inc., East Longmeadow, USA CeramOptec GmbH, Bonn, Germany

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at our homepage under [www.biolitec.de](http://www.biolitec.de)





“Making varicose veins disappear” is no longer just a vision: With the introduction of biolitec’s evolutionary ELVeS™-method, patients can resume their normal activities as quickly as one hour after having been treated with the new procedure.

The opening of a subsidiary in Lille, France, is another example of innovation and healthy growth during the first two quarters of 2001/2002.

biolitec increased group sales by 20 % during the first six months of the current fiscal year. Net income and earnings per share also grew by more than 37%.

biolitec AG is listed on the “Neuer Markt” segment with the security identification number 521340.

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## Healthy growth on a pair of beautiful legs

Half-year figures	July 1 – December 31, 2001 K EUR	July 1 – December 31, 2000 K EUR
Total assets	44,199	43,832
Revenues	8,781	7,317
Gross profit	5,765	4,854
EBIT	612	972
Net income	573	416
Net income per share (euros)	0.06	0.04
Employees	163	129

