

K071295

510(k) SUMMARY

MAY 16 2007

**Biolitec Inc.'s  
100W Ceralas Diode 980nm Laser System (Model D100)**

**Submitter's Name, Address, Telephone Number, Contact Person  
and Date Prepared**

Hogan & Hartson  
555 13<sup>th</sup> Street NW  
Washington DC 20004

Phone: 202 637-5794  
Facsimile: (202) 637-5910

Contact Person: Jonathan S. Kahan

Date Prepared: May 16, 2007

**Name of Device and Name/Address of Sponsor**

100W Ceralas D 980nm Diode Laser (Model D100)

Biolitec, Inc.  
515 Shaker Road  
East Longmeadow, MA 01028

**Common or Usual Name**

Diode Laser

**Classification Name**

Laser, Surgical Diode Laser System

**Predicate Devices**

Biolitec's 100W Ceralas D 980nm Diode Laser (K050824)

INTERmedic Diode Laser Family 890nm and 980nm (K053540)

Laserscope Lyra G™ Series Surgical Laser System (K010284)

**Intended Use / Indications for Use**

The device is intended for delivery of laser light to soft tissue in the contact and non contact mode during surgical procedures including via

endoscopes. The 100W Ceralas D980 is generally indicated for use in incision, excision, vaporization, ablation, hemostasis or coagulation of soft tissue in ear, nose and throat and oral surgery (otolaryngology), arthroscopy, gastroenterology, general surgery, dermatology, plastic surgery, podiatry, urology, gynecology, neurosurgery (peripheral nervous system), pulmonary surgery, cardiothoracic surgery, dental applications, and endovenous occlusion of the greater saphenous vein.

The device is specifically indicated for use as follows:

#### **Ear, Nose and Throat and Oral Surgery (Otolaryngology)**

Hemostasis, incision, excision, ablation, coagulation, and vaporization of tissue from the ear, nose, throat and adjacent areas including soft tissue in the oral cavity. Examples include:

- Removal of benign lesions from the ear, nose and throat
- Excision and vaporization of vocal cord nodules and polyps
- Incision and excision of carcinoma in situ
- Ablation and vaporization of hyperkeratosis
- Excision of carcinoma of the larynx
- Laryngeal papillomectomy
- Excision and vaporization of herpes simplex I and II
- Neck dissection

#### **Arthroscopy**

Hemostasis, incision, excision, coagulation, vaporization and ablation of joint tissues during arthroscopic surgery. Examples include:

- Meniscectomy
- Synovectomy
- Chondromalacia

#### **Gastroenterology**

Hemostasis, incision, excision, ablation, coagulation and vaporization of tissue in the upper and lower gastrointestinal tracts and also with endoscopic procedures. Examples include:

- Hemostasis of upper and lower GI bleeding
- Excision and vaporization of colorectal carcinoma
- Excision of polyps

#### **General Surgery, Dermatology, Plastic Surgery and Podiatry**

Excision, ablation, vaporization and photocoagulation of skin lesions, hemostasis, incision, excision, vaporization, ablation and debulking of soft tissue, abdominal, rectal, skin, fat or muscle tissue and dermabrasion.

Examples include:

- Matrixectomy
- Excision of neuromas
- Excision of periungual and subungual warts
- Excision of plantar warts
- Excision of keloids

- Liver resection
- Excision of cutaneous lesions
- Hemorrhoidectomy
- Appendectomy
- Debridement of decubitus ulcers
- Hepatobiliary tumors
- Mastectomy
- Dermabrasion
- Vaporization and hemostasis of capillary hemangioma
- Excision, vaporization and hemostasis of abdominal tumors
- Excision, vaporization and hemostasis of rectal pathology
- Pilonidal cystectomy
- Herniorraphy
- Adhesiolysis
- Parathyroidectomy
- Laparoscopic cholecystectomy
- Thyroidectomy
- Resection of organs
- Debridement of wounds
- Photocoagulation of teleangectasia of the legs and face
- Photocoagulation of vascular lesions of the face and extremities
- Endovascular coagulation of the greater saphenous vein of the thigh in patients with superficial vein reflux.
- Treatment of reticular veins and branch varicosities

### **Urology**

Excision, vaporization, incision, coagulation, ablation and hemostasis of urological tissues. Examples include:

- Vaporization of urethral tumors
- Release of urethral stricture
- Removal of bladder neck obstruction
- Excision and vaporization of condyloma
- Lesions of external genitalia
- Vaporization of the prostate to treat benign prostatic hyperplasia (BPH)

### **Gynecology**

Ablation, excision, incision, coagulation, hemostasis and vaporization of gynecological tissue. Examples include:

- Endometrial ablation
- Excision or vaporization of condylomata acuminata
- Vaporization of cervical intraepithelial neoplasia
- Cervical conization
- Menorrhagia

### **Neurosurgery**

Vaporization, coagulation, excision, incision, ablation and hemostasis of soft tissue. Examples include: hemostasis in conjunction with meningiomas

### **Cardiac Surgery**

Hemostasis and coagulation of soft tissue, including cardiac tissue.

### **Pulmonary Surgery**

Hemostasis, vaporization, coagulation, incision, excision and ablation of soft tissue in the pulmonary system. Examples include:

- Tracheobronchial malignancy or stricture
- Benign and malignant pulmonary obstruction
- Endoscopic pulmonary applications

### **Dental Applications**

Indicated for the following applications on intraoral and extraoral soft tissue (including marginal and interdental gingival and epithelial lining of free gingival): frenectomy, frenotomy, biopsy, operculectomy, implant recovery, gingivectomy, gingivoplasty, gingival troughing, crown lengthening, hemostasis of donor site, removal of granulation tissue, laser assisted flap surgery, debridement of diseased epithelial lining, incisions and draining of abscesses, tissue retraction for impressions, papillectomy, vestibuloplasty, excision of lesions, exposure of unerupted/partially erupted teeth, leukoplakia, removal of hyperplastic tissues, treatment of aphthous ulcers and sulcular debridement (removal of diseased or inflamed soft tissue in the periodontal pocket), pulpotomy, pulpotomy as an adjunct to root canal therapy and light activation of bleaching materials for teeth whitening.

### **Endovenous Occlusion of the Greater Saphenous Vein in Patients with Superficial Vein Reflux**

Indicated for use with the ELVes Procedure Kit in the endovascular coagulation of the Greater Saphenous Vein (GSV) of the thigh in patients with Superficial Vein Reflux.

## **Technological Characteristics**

The Ceralas D100 for vaporization of the prostate to treat BPH has the same technological characteristics as the cleared Ceralas D100 and substantially similar technological characteristics as compared to the INTERmedic Diode Laser.

## **Performance Data**

Performance testing of the Ceralas D100 demonstrates no significant difference as compared to the cleared Ceralas D100 device (K050824). Thus, the performance and safety testing obtained for the cleared Ceralas D100 is fully applicable to the Ceralas D100.

## **Substantial Equivalence**

The Ceralas D100 is as safe and effective as Biolitec's 100W Ceralas D 980nm Diode Laser (K050824) and INTERmedic's Diode Laser Family 890nm and 980nm (K053540). The Ceralas D100 has the same intended uses and similar indications, technological characteristics, and principles of operation as its predicate devices. The minor technological differences between the Ceralas D100 and its predicate devices raise no new issues of safety or effectiveness. Performance data demonstrate that the Ceralas D100 is as safe and effective as the predicate devices. Thus, the Ceralas D100 is substantially equivalent.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

FEB 21 2008

Biolitec, Inc.  
c/o Mr. Jonathan S. Kahan  
Hogan & Hartson, L.L.P.  
Columbia Square  
555 Thirteenth Street, N.W.  
Washington, DC 20004

Re: K071295  
Trade/Device Name: 100W Ceralas D 980nm Diode Laser (Model D100)  
Regulation Number: 21 CFR §878.4810  
Regulation Name: Laser surgical instrument for use in general and plastic surgery  
and in dermatology  
Regulatory Class: II (two)  
Product Code: OCL, GEX  
Dated: May 8, 2007  
Received: May 8, 2007

Dear Mr. Kahan:

This letter corrects our substantially equivalent letter of May 16, 2007.

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Page 2 - Mr. Jonathan S. Kahan

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to continue marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



Bram D. Zuckerman, M.D.  
Director

Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use Statement

510(k) Number (if known): K071295

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Prescription Use  X   
(Part 21 C.F.R. 801 Subpart D)

AND/OR

Over-The-Counter Use        
(21 C.F.R. 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE -- CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Nancy C Brogdon   
(Division Sign-Off)  
Division of Reproductive, Abdominal,  
and Radiological Devices  
510(k) Number  K071295

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