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MAR 27 2002

<b>Summary of Safety and Effectiveness Information</b> PerioLase <b>Dental Laser System</b> <b>Premarket Notification, Section 510(k)</b>	MILLENNIUM DENTAL TECHNOLOGIES, INC.  DECEMBER 13, 2001
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This 510(K) Summary of safety and effectiveness for the Millennium Dental Technologies PerioLase Dental Laser System is submitted in accordance with the requirements of the SMDA 1990 and following guidance concerning the organization and content of a 510(K) summary.

**Applicant:** Millennium Dental Technologies, Inc.

**Address:** 10929 South Street, Suite 106-B  
Cerritos, CA 90703

**Contact Person:** David M. Harris, Ph.D.

**Telephone:** (562) 860-2908 – Phone  
(562) 860-1799 – FAX

**Preparation Date:** December 14, 2001

**Device Trade Name:** PerioLase Dental Laser

**Common Name:** Nd:YAG Pulsed Laser

**Classification Name:** Instrument, Surgical, Powered, Laser  
79-GEX  
21 CFR 878-48

**Legally Marketed Predicate Device:** InPulse Pulsed Nd:YAG Laser  
PulseMaster Dental Laser  
SunLase 800P Laser System  
Dentica Dental Laser

**Description of the Millennium Dental Technologies PerioLase Dental Laser** The PerioLase is an Nd:YAG laser producing laser emission at 1064nm. The laser consists of two interconnected sections: The cabinet which houses the laser head, the power supply, the cooling system and the microprocessor with control panel; and the fiber optic delivery system.

**Clinical Performance Data:** N/A

**Summary Basis of Equivalence:** The PerioLase is essentially identical to the InPulse Laser System. The indications for use and intended uses are also identical. There are no new safety issues.

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**Summary of Safety and Effectiveness Information PerioLase  
Dental Laser System  
Premarket Notification, Section 510(k)**

**MILLENNIUM DENTAL  
TECHNOLOGIES, INC.**

**JANUARY 02, 2002**

Intended use:

The following are the oral-pharyngeal indications for use for which the device will be marketed:

- Abscess Incision and Drainage
- Apthous Ulcers Treatment
- Biopsies Excision and Incision
- Crown lengthening
- Hemostatic assistance
- Fibroma Removal
- Frenectomy
- Frenotomy
- Gingival Incision and Excision
- Gingivectomy
- Gingivoplasty
- Operculectomy
- Oral Papillectomy
- Tissue retraction for Impression
- Vestibuloplasty.
- Selective ablation of enamel (first degree) caries
- Exposure of unerupted / partially erupted teeth
- Implant recovery
- Lesion (tumor) removal
- Leukoplakia
- Pulpotomy
- Pulpotomy as adjunct to root canal therapy
- Removal of filling material such as gutta percha or resin as adjunct treatment during root canal re-treatment
- Sulcular debridement (removal of diseased or inflamed soft tissue in the periodontal pocket) to improve clinical indices including gingival index, gingival bleeding index, probe depth, attachment level and tooth mobility



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

MAR 27 2002

Millennium Dental Technologies, Inc.  
c/o David M. Harris, Ph.D.  
Bio-Medical Consultants, Inc.  
4256 Heyer Avenue  
Castro Valley, California 94546

Re: K014272

Trade Name: PerioLase Dental Laser

Regulation Number: 878.4810

Regulation Name: Laser surgical instrument for use in general and plastic surgery and in dermatology

Regulatory Class: II

Product Code: GEX

Dated: December 13, 2001

Received: December 27, 2001

Dear Dr. Harris:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to 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 application (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 such 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.

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 begin 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 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

*Miriam C. Provost*  
for Celia M. Witten, Ph.D., M.D.  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

510(k) Number: K014272

Device Name(s): PerioLase Nd:YAG Dental Laser System

**Intended Use(s) of the Device:**

The *PerioLase Nd:YAG Dental Laser System* is to provide the ability to perform intraoral soft tissue dental, general, oral maxillo-facial and cosmetic surgery. The PerioLase is intended for ablating, incising, excising, vaporization and coagulation of soft tissues using a contact fiber optic delivery system. The device will be used in the following areas: general and cosmetic dentistry, otolaryngology, arthroscopy, gastroenterology, general surgery, dermatology & plastic surgery, neurosurgery, gynecology, urology, ophthalmology and pulmonary surgery. The following are the additional oral-pharyngeal indications for use for which the device will be marketed:

- Selective ablation of enamel (first degree) caries
- Exposure of unerupted / partially erupted teeth
- Implant recovery
- Lesion (tumor) removal
- Leukoplakia
- Pulpotomy
- Pulpotomy as adjunct to root canal therapy
- Removal of filling material such as gutta percha or resin as adjunct treatment during root canal re-treatment
- Sulcular debridement (removal of diseased or inflamed soft tissue in the periodontal pocket) to improve clinical indices including gingival index, gingival bleeding index, probe depth, attachment level and tooth mobility

PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NECESSARY  
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use X  
(Per 21 CFR 801.109)

OR

Over-The-Counter Use \_\_\_\_\_  
(Optional format 1-2-96)

Miriam C. Provost  
(Division Sign-Off)  
Division of General, Restorative  
and Neurological Devices

PerioLase.doc

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