510(k) Summary

This 510(k) Summary for the EBI® Omega21™ Spinal Fixation System is provided as required per Section 513(3) of the Food, Drug and Cosmetic Act.

1. **Submitter:** EBI, L.P.  
   Contact Person: Frederic Testa, RAC  
   100 Interpace Parkway  
   Parsippany, NJ 07054  
   Telephone: (973) 299-9300, ext.2208  
   Date prepared: September 23, 2002

2. **Proprietary Name:**  
   EBI® Omega21™ Spinal Fixation System  
   **Common Name:**  
   Spinal Fixation Device  
   **Classification Names:**  
   Spondylolisthesis Spinal Fixation Device System  
   Spinal Intervertebral Body Fixation Orthosis  
   Spinal Interlaminal Fixation Orthosis

3. **Predicate or legally marketed devices that are substantially equivalent:**
   - EBI® Omega 21™ System (K020681, K014137, K001357, K992333, K991721, K990303, and K973683).

4. **Description of the device:**  
   The EBI® Omega21 Spinal Fixation System is a spinal fixation device that utilizes rods, screws, couplers and hooks. This submission is for the addition of 'Angulating Cross Connector' to the existing System.

5. **Intended Use:**  
   The EBI® Omega21™ Spinal Fixation System is a spinal fixation device for pedicle screw fixation and a non-pedicle hook and sacral/iliac screw fixation system of the non-cervical spine.
When used as a pedicle screw fixation system, in the non-cervical spine of skeletally mature patients, the System is intended to provide immobilization and stabilization of spinal segments, as an adjunct to fusion in the treatment of the following acute and chronic instabilities or deformities of the thoracic, lumbar, and sacral spine: degenerative spondylolisthesis with objective evidence of neurologic impairment; fracture; dislocations; scoliosis; kyphosis; spinal tumor; and failed previous fusion (pseudarthrosis).

In addition, when used as a pedicle screw fixation system in skeletally mature patients, it is intended for patients: (a) having severe spondylolisthesis (Grades 3 and 4) of the fifth lumbar – first sacral (L5 – S1) vertebral joint; (b) who are receiving fusions using autogenous bone graft only; (c) who are having the device fixed or attached to the lumbar and sacral spine (L3 and below); and (d) who are having the device removed after the development of a solid fusion mass.

When used as a posterior hook and sacral/iliac screw fixation system, the levels of attachment are the lumbar and thoracic spine, and screw fixation is limited to the sacrum and ilium. The System is intended for the treatment of degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); pseudarthrosis; stenosis; scoliosis; spondylolisthesis; fracture; previous failed fusion; or tumor resection.

When used as an anterior fixation system, the levels of attachment are the anterolateral vertebral bodies of the lumbar and thoracic spine. The System is intended for the treatment of degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); pseudarthrosis; stenosis; scoliosis; spondylolisthesis; fracture; previous failed fusion; or tumor resection.

6. **Materials:** The components of the System are manufactured from titanium alloy (Ti-6Al-4V ELI) per ASTM F136.
7. **Comparison of the technological characteristics of the device to predicate devices:** There are no significant differences between the proposed EBI® Omega21™ Spinal Fixation System and the currently marketed EBI Omega21 Spinal Fixation System. It is substantially equivalent* to the predicate devices in regards to intended use, materials, and function.

*Any statement made in conjunction with this submission regarding a determination of substantial equivalence to any other product is intended only to relate to whether the product can be lawfully marketed without pre-market approval or reclassification and is not intended to be interpreted as an admission or any other type of evidence in patent infringement litigation. [Establishment Registration and Premarket Notification Procedures, Final Regulation, Preamble, August 23, 1977, FR 42520 (Docket No. 76N-0355.))}
Mr. Frederic Testa  
Regulatory Affairs Specialist  
EBI, L.P.  
100 Interpace Parkway  
Parsippany, New Jersey 07054

Re: K023204  
Trade Name: EBI Omega 21™ System  
Regulatory Number: 21 CFR 888.3070, 888.3050, 888.3060  
Regulation Name: Pedicle Screw Spinal System, Spinal Interlaminal Fixation, Orthosis, Spinal Intervertebral Body Fixation Orthosis  
Regulatory Class: II  
Product Code: MNH, MNI, KWP, KWQ  
Dated: September 24, 2002  
Received: September 25, 2002

Dear Mr. Testa:

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 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
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" (21 CFR 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,

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

Enclosure
Statement of Indications for Use

Device Name: EBI® Omega2™ Spinal Fixation System

Indications For Use:
The EBI® Omega2™ Spinal Fixation System is a spinal fixation device for pedicle screw fixation and a non-pedicle hook and sacral/iliac screw fixation system of the non-cervical spine.

When used as a pedicle screw fixation system, in the non-cervical spine of skeletally mature patients, the System is intended to provide immobilization and stabilization of spinal segments, as an adjunct to fusion in the treatment of the following acute and chronic instabilities or deformities of the thoracic, lumbar, and sacral spine: degenerative spondylolisthesis with objective evidence of neurologic impairment, fracture, dislocations, scoliosis, kyphosis, spinal tumor, and failed previous fusion (pseudarthrosis).

In addition, when used as a pedicle screw fixation system in skeletally mature patients, it is intended for patients: (a) having severe spondylolisthesis (Grades 3 and 4) of the fifth lumbar – first sacral (L5 – S1) vertebral joint; (b) who are receiving fusions using autogenous bone graft only; (c) who are having the device fixed or attached to the lumbar and sacral spine (L3 and below); and (d) who are having the device removed after the development of a solid fusion mass.

When used as a posterior hook and sacral/iliac screw fixation system, the levels of attachment are the lumbar and thoracic spine, and screw fixation is limited to the sacrum and ilium. The System is intended for the treatment of degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies), pseudarthrosis, stenosis, scoliosis, spondylolisthesis, fracture, previous failed fusion, or tumor resection.

When used as an anterior fixation system, the levels of attachment are the anterolateral vertebral bodies of the lumbar and thoracic spine. The System is intended for the treatment of degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies), pseudarthrosis, stenosis, scoliosis, spondylolisthesis, fracture, previous failed fusion, or tumor resection.

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