FEB 13 2006

K052966

510 (k) Summary of Safety and Effectiveness for Ci TKR/UKR

Manufacturer:

Address:	BrainLAB AG Ammerthalstrasse 8 85551 Heimstetten Germany Phone: +49 89 99 15 68 0 Fax: +49 89 99 15 68 33
Contact Person:	Mr. Per Persson

Summary Date:	October 7, 2005

Device Name:

Trade name:	Ci™ Knee, Ci™ MI TKR
Common/Classification Name:	Ci TKR/UKR, BrainLAB Image Guided Surgery System / Instrument, Stereotaxic

Predicate Devices:
VectorVision® CT-free knee (K-021306)
VectorVision® Uni-Knee (K-041899)
Ci TKR/UKR (K-031770)

Device Classification Name: Instrument, Stereotaxic
Regulatory Class: Class II

Intended Use:

Ci TKR/UKR is intended to be an intraoperative image guided localization system to enable minimally invasive surgery. It links a freehand probe, tracked by a passive marker sensor system to virtual computer image space on an individual 3D-model of the patient's bone, which is generated through acquiring multiple landmarks on the bone surface. The system is indicated for any medical condition in which the use of stereotactic surgery may be appropriate and where a reference to a rigid anatomical structure, such as the skull, a long bone, or vertebra, can be identified relative to a CT, X-ray, MR based model of the anatomy. The system aids the surgeon to accurately navigate a knee prosthesis to the intraoperatively planned position. Ligament balancing and measurements of bone alignment are provided by Ci TKR/UKR.

Example orthopedic surgical procedures include but are not limited to:

Total Knee Replacement
Unicondylar Knee Replacement
Ligament Balancing
Range of Motion Analysis
Cruciate Ligament Surgery
Patella Tracking

Device Description:
Ci TKR/UKR is intended to enable operational planning and navigation in orthopedic surgery. It links a surgical instrument, tracked by flexible passive markers to virtual computer image space on an individual 3D-model of the patient's bone, which is generated through acquiring multiple landmarks on the bone surface. Ci TKR/UKR uses the registered landmarks to navigate the femoral and tibial cutting guides and the implant to the planned optimally position.

Ci TKR/UKR allows 3-dimensional reconstruction of the mechanical axis and alignment of the implants. Ci TKR/UKR software registers the patient data needed for planning and navigating the surgery intraoperatively. No preoperative CT-scanning is necessary.

Ci TKR/UKR software has been designed to read in implant data from DePuy and offers to individually choose the prosthesis during each surgery.

The CAS Knee Instrumenation (K-043223) developed and manufactured by DePuy is integrated in the Ci TKR/UKR software. Together, instruments and hardware/software enable operational planning and navigation during minimally invasive orthopaedic knee replacement surgery.

Substantial equivalence:
Ci TKR/UKR has been verified and validated according to BrainLAB's procedures for product design and development. The validation proves the safety and effectiveness of the system. The information provided by BrainLAB in this 510 (k) application includes the CAS Knee Instrumentation (K-043223), developed and manufactured by DePuy and was found to be substantially equivalent with predicate devices such as the 510(k)-clearance of VectorVision® CT-free knee (K-021306), VectorVision® Uni-Knee (K-041899) and of Ci TKR/UKR (K-031770).

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

FEB 13 2006

Mr. Per Persson
Manager, Regulatory Affairs
BrainLAB AG
Ammerthalstrasse 8
85551 Hiemstetten
GERMANY

Re: K052966
Trade/Device Name: Ci TKR/UKR
Regulation Number: 21 CFR 882.4560
Regulation Name: Stereotaxic instrument
Regulatory Class: II
Product Code: HAW
Dated: January 19, 2006
Received: January 19, 2006

Dear Mr. Persson:

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 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), please contact the Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 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 (301) 443-6597 or at its Internet address http://www.fda.gov/cdrh/industry/support/index.html.

Sincerely yours,

Barbara Brehm for

Mark N. Melkerson
Acting Director
Division of General, Restorative
and Neurological Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Indications for Use

510(k) Number (if known): K052966

Device Name: Ci TKR/UKR

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Knee Procedures:
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Unicondylar Knee Replacement
Ligament Balancing
Range of Motion Analysis
Cruciate Ligament Surgery
Patella Tracking

Prescription Use ____X____ (Per 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use _____ (21 CFR 801 Subpart C)

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

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)
Division of General, Restorative, and Neurological Devices

510(k) Number K052966