

K092562

SEP 18 2009



Microelectrodes and Instrumentation for Neuroscience  
Research and Clinical microTargeting<sup>®</sup>

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## SPECIAL 510(k) SUMMARY

**Submitter:** FHC, Inc., 1201 Main Street, Bowdoin, Maine 04287  
Tel: 207-666-5651; Fax: 207-666-8539

**Contact Person:** Lee D. Margolin, MS, PhD.

**Date of Summary Preparation:** August 19, 2009

**Trade Name:** microTargeting<sup>™</sup> STar Drive<sup>™</sup> System

**Common Name:** Stereotaxic instrument

**Classification Name:** Stereotaxic instrument (21 CFR 882.4560, Product Code HAW)

**Substantially Equivalent To:** FHC, Inc. microTargeting<sup>™</sup> Drive System K003776, February 23, 2001

### Description:

When used in conjunction with commonly available stereotactic systems, the microTargeting<sup>™</sup> STar Drive<sup>™</sup> System allows a neurosurgeon to precisely position intracranial microelectrodes, stimulating electrodes, lesion electrodes and other instruments during functional neurosurgical procedures.

### microTargeting<sup>™</sup> STar Drive<sup>™</sup> System Components

- microTargeting<sup>™</sup> STar Drive<sup>™</sup>
- optional lower guide
- lead holder with lead /lesion stop
- verification probe
- sterilization case
- cleaning brushes

### Device Mounting Hardware and other Components

Additional components for device mounting include hardware specifically designed to interface between the microTargeting<sup>™</sup> STar Drive<sup>™</sup> system and other stereotactic frames or instruments, and also include optional components to increase utility.

- Adapters to fit Radionics, Leksell, Leibinger RM, Leibinger ZD, FHC microTargeting™ Platform and Medtronic-IGN NeXframe stereotactic systems
- single electrode insertion tube set
- array electrode insertion tube set
- lesion insertion tube kit and depth stops
- custom microelectrode depth stops

**Intended Use:**

The FHC microTargeting™ STar Drive™ System is intended to be used with commercially available stereotactic systems for neurosurgical procedures which require the accurate positioning of microelectrodes, stimulating electrodes, or other instruments in the brain or nervous system

**Technological Characteristics:**

**Comparison Table**

<b><u>Parameter</u></b>	<b><u>microTargeting™ Drive</u></b>	<b><u>microTargeting™ STar Drive™</u></b>
Indications for Use	Accurate positioning of probes in the brain or nervous system	Same
Drive mechanism	Manual and/or optional motor drive	Same
Biocompatibility		
Drive system & Accessories	No contact with tissue	Same
Insertion Tubes	304 stainless steel	Same
Travel	50 mm	Same
Sterilization	Steam; ethylene oxide	Steam
Position Indicator	Mechanical and/or digital readout capable	Same
Stereotactic frame adapters	Radionics, Leksell, Leibinger RM, Leibinger ZD, M-IGN NeXframe FHC microTargeting™ Platform	Same
Materials	Hardcoated Aluminum, Stainless Steel	Same

**Performance testing**

Performance testing of the microTargeting™ STar Drive™ System documented in the verification and validation phases of design control, (See Section 10 and APPENDIX C of this document), show the system to be the equivalent or improved over the predicate system in ease of manufacturing, mechanical and electrical quietness, ease of use, repeatability, accuracy, rigidity, and adaptability.

**Substantial Equivalence statement:**

The microTargeting™ STar Drive™ System is substantially equivalent in design, construction, materials, intended use and performance characteristics to its predicate device, the FHC microTargeting™ Drive System, which was cleared under 510(k) K003776, February 23, 2001.



DEPARTMENT OF HEALTH & HUMAN SERVICES

SEP 18 2009

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Mail Center - WO66-G609  
Silver Spring, MD 20993-0002

FHC, Inc  
c/o Lee Margolin, MS, PhD  
Senior Associate Director of Research & Development  
Quality System Officer  
1201 Main Street  
Bowdoin, Maine 04287

Re: K092562

Trade/Device Name: microTargeting™ STar Drive™ System  
Regulation Number: 21 CFR 882.4560  
Regulation Name: Stereotaxic instrument  
Regulatory Class: II  
Product Code: HAW  
Dated: August 19, 2009  
Received: August 20, 2009

Dear Dr. Margolin:

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 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); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); 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.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/cdrh/mdr/> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

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/industry/support/index.html>.

Sincerely yours,



Malvina B. Eydelman, M.D.

Director

Division of Ophthalmic, Neurological,  
and Ear, Nose and Throat Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K092562

Device Name: microTargeting™ STar Drive™ System

Indications for Use:

The FHC microTargeting™ STar Drive™ System is intended to be used with commercially available positioning systems for neurosurgical procedures which require the accurate positioning of microelectrodes, stimulating electrodes, or other instruments in the brain or nervous system.

Prescription Use X  
(Part 21 CFR 801 Subpart D)

AND/OR

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

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OF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

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(Division Sign Off)

Division of Ophthalmic, Neurological and Ear,  
Nose and Throat Devices

510(k) Number K092562