

## 510(k) Summary

JAN 31 2014

**Contact:** Justin Eggleton  
Musculoskeletal Clinical & Regulatory Advisers, LLC  
1331 H Street NW, 12<sup>th</sup> Floor  
Washington, DC 20005  
202.552.5800

**Date Prepared:** January 17, 2014

**Device Trade Name:** Aurora Spine Interbody Fusion System

**Sponsor:** Aurora Spine, Inc.  
1920 Palomar Point Way  
Carlsbad, CA 92008

**Common Name:** Lumbar and Cervical Interbody Cage

**Classification:** 21 CFR §888.3080; Intervertebral body fusion device

**Class:** II

**Product Code:** MAX, ODP

### Indications For Use:

#### Lumbar System Indications

The Aurora Spine Interbody Fusion System devices are indicated for use as intervertebral body fusion devices in skeletally mature patients with degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by patient history and radiographic studies) at one or two contiguous levels of the lumbar spine (L2-S1). Patients should have six months of non-operative treatment prior to surgery. These implants are used to facilitate fusion in the lumbar spine and are placed via either a posterior, transforaminal, lateral or anterior approach using autogenous bone. When used as interbody fusion devices these implants are intended for use with supplemental fixation systems cleared for use in the thoracolumbar spine.

#### Cervical System Indications

The Aurora Spine Interbody Fusion System is indicated for use as an intervertebral body fusion device in skeletally mature patients with degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by patient history and radiographic studies) at one level of the cervical spine with accompanying radicular symptoms. Patients should have six weeks of non-operative treatment prior to surgery. Cervical implants are used to facilitate fusion in the cervical spine (C2-T1) and are placed

via an anterior approach using autogenous bone. When used as an interbody fusion device, supplemental fixation must be used.

**Device Description:**

The Aurora Spine Interbody Fusion System, manufactured from PEEK-Optima®, consist of implants available in various foot prints, heights and lordotic configurations with an open architecture to accept packing of autograft materials. The exterior of the device has "teeth" or other generally sharp engagement members on the superior and inferior surfaces to help prevent the device from migrating once it is surgically positioned. The device comes in a PEEK or PEEK with a plasma-sprayed commercially pure titanium coating on the superior and inferior surfaces.

**Predicate Device(s):**

The Aurora Spine Interbody Fusion System was shown to be substantially equivalent to previously cleared device and has the same indications for use, design, function, and materials used. This device is the Tyber Medical Interbody System (K130573).

**Performance Standards:**

Non-clinical mechanical testing was performed consisting of Static and Dynamic Compression, Torsion, Compression-Shear per ASTM F2077. Additionally, Subsidence Testing per ASTM F2267 and Expulsion testing was performed. The coating characterization tests include Static Shear per ASTM F1044, Static Tension per ASTM F1147, and Abrasion per ASTM F1978. All data indicates the device is substantial equivalence to the predicate systems

Clinical data and conclusions were not needed for this device.

**Conclusion:**

The Aurora Spine Interbody Fusion System is substantially equivalent to predicate devices.



January 31, 2014

Aurora Spine  
% Mr. Justin Eggleton  
Director, Spine Regulatory Affairs  
Musculoskeletal Clinical Regulatory Advisers, LLC  
1331 H Street Northwest, 12th Floor  
Washington, District of Columbia 20005

Re: K133967

Trade/Device Name: Aurora Spine Interbody Fusion System  
Regulation Number: 21 CFR 888.3080  
Regulation Name: Intervertebral body fusion device  
Regulatory Class: Class II  
Product Code: MAX, ODP  
Dated: December 18, 2013  
Received: December 24, 2013

Dear Mr. Eggleton:

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. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

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 contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 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/MedicalDevices/Safety/ReportaProblem/default.htm> 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 (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

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for

Mark N. Melkerson

Director

Division of Orthopedic Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

## 2. Indications for Use

510(k) Number (if known): K133967

Device Name: Aurora Spine Interbody Fusion System

### Lumbar System Indications

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### Cervical System Indications

The Aurora Spine Interbody Fusion System is indicated for use as an intervertebral body fusion device in skeletally mature patients with degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by patient history and radiographic studies) at one level of the cervical spine with accompanying radicular symptoms. Patients should have six weeks of non-operative treatment prior to surgery. Cervical implants are used to facilitate fusion in the cervical spine (C2-T1) and are placed via an anterior approach using autogenous bone. When used as an interbody fusion device, supplemental fixation must be used.

Prescription Use   v    
(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)

**Anton E. Dmitriev, PhD**  
**Division of Orthopedic Devices**