

## 5. 510(K) SUMMARY

Submitter's Name:	Spinal USA, Inc.
Submitter's Address:	2050 Executive Drive Pearl, MS 39208
Submitter's Telephone:	601-420-4244
Contact Person:	Meredith L. May, MS Empirical Testing Corp. 719.337.7579
Date Summary was Prepared:	28 June 2013
Trade or Proprietary Name:	Vault-C Standalone Cervical Interbody Fusion System
Common or Usual Name:	Intervertebral body fusion device.
Classification:	Class II per 21 CFR §888.3080
Product Code:	OVE
Classification Panel:	Orthopedic and Rehabilitation Devices Panel
Predicate Devices:	Centinel Spine Stalif C System (K120819) Biomet Spine, Solitaire-C System (K113796) LDR Spine ROI-C (K091088, K113559) Life Spine, Inc. Pro-Link Stand-Alone Cervical System (K121151) Globus Medical, Inc COALITION Spacer (K083389)

### DESCRIPTION OF THE DEVICE SUBJECT TO PREMARKET NOTIFICATION:

The Vault-C consists of a spacer assembly including a PEEK cage with a titanium alloy plate and titanium bone screws for intervertebral body fusion. Screws are available in a variety of diameter-length combinations. The titanium and PEEK spacers are available in a variety of depths, widths and heights. Fixation is achieved by inserting bone screws through the openings in the spacer into the vertebral bodies of the cervical spine.

### INDICATIONS FOR USE

The Vault-C Standalone Cervical Interbody Fusion System is a standalone cervical interbody device intended for use in skeletally mature patients with degenerative disc disease (DDD) of the cervical spine (C3-T1) at one disc level. DDD is defined as discogenic pain with degeneration of the disc confirmed by history and radiographic studies. The Vault-C implants are used with two titanium alloy screws and filled with autogenous bone graft material to facilitate fusion in the cervical spine. The device is placed via an anterior approach at the C-3 to T-1 disc levels.

Spinal USA Vault-C Standalone Cervical Interbody Fusion System

Patients should have at least six weeks of non-operative treatment prior to treatment with an intervertebral fusion device.

The indication for use for the Spinal USA Vault-C is similar to that of the Centinel Spine Stalif C System (K120819), Biomet Spine Solitaire-C System (K113796), LDR Spine ROI-C (K091088, K113559), Life Spine, Inc. Pro-Link Stand-Alone Cervical System (K121151) and Globus Medical, Inc. COALITION Spacer (K083389).

#### TECHNICAL CHARACTERISTICS

The spacers are manufactured from PEEK-OPTIMA® (ASTM F2026), titanium alloy (ASTM F136), and tantalum (ASTM F560-05). The predicate devices are manufactured from the same or similar materials. The subject and predicate devices have nearly identical technological characteristics and the minor differences do not raise any new issues of safety and effectiveness. Specifically the following characteristics are identical between the subject and predicates:

- Indications for Use
- Materials of manufacture
- Structural support mechanism

#### PERFORMANCE DATA

The Vault-C has been tested in the following test modes:

- Static Axial Compression (ASTM F-2077)
- Static Compression-Shear (ASTM F-2077)
- Static Torsion (ASTM F-2077)
- Dynamic Axial Compression (ASTM F-2077)
- Dynamic Compression-Shear (ASTM F-2077)
- Dynamic Torsion (ASTM F-2077)
- Subsidence (ASTM F-2267 and ASTM F-2077)

The results of this non-clinical testing show that the strength of the Vault-C is sufficient for its intended use and is substantially equivalent to legally marketed predicate devices.

#### CONCLUSION

The overall technology characteristics and mechanical performance data lead to the conclusion that the Vault-C is substantially equivalent to the predicate device.



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

Spinal USA  
% Ms. Meredith May  
Partnership Manager  
Empirical Testing Corporation  
4628 Northpark Drive  
Colorado Springs, Colorado 80918

November 25, 2013

Re: K132029

Trade/Device Name: Vault-C Standalone Cervical Interbody Fusion System  
Regulation Number: 21 CFR 888.3080  
Regulation Name: Intervertebral body fusion device  
Regulatory Class: Class II  
Product Code: OVE  
Dated: October 8, 2013  
Received: October 18, 2013

Dear Ms. May:

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

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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,

**Mark N. Melkerson -S**

Mark Melkerson  
Director  
Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration <b>Indications for Use</b>	Form Approved: OMB No. 0910-0120 Expiration Date: December 31, 2013 See PRA Statement on last page.
510(k) Number (if known) <b>K132029</b>	
Device Name <b>Vault-C Standalone Cervical Interbody Fusion System</b>	
Indications for Use (Describe)  <p>The Vault-C Standalone Cervical Interbody Fusion System is a standalone cervical interbody device intended for use in skeletally mature patients with degenerative disc disease (DDD) of the cervical spine (C3-T1) at one disc level. DDD is defined as discogenic pain with degeneration of the disc confirmed by history and radiographic studies. The Vault-C implants are used with two titanium alloy screws and filled with autogenous bone graft material to facilitate fusion in the cervical spine. The device is placed via an anterior approach at the C-3 to T-1 disc levels. Patients should have at least six weeks of non-operative treatment prior to treatment with an intervertebral fusion device</p>	
Type of Use (Select one or both, as applicable) <input checked="" type="checkbox"/> Prescription Use (Part 21 CFR 801 Subpart D) <input type="checkbox"/> Over-The-Counter Use (21 CFR 801 Subpart C)	
<b>PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON A SEPARATE PAGE IF NEEDED.</b>	
<b>FOR FDA USE ONLY</b>	
Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)  <p style="text-align: center;"><b>Anton E. Dmitriev, PhD</b>  <b>Division of Orthopedic Devices</b></p>	