

August 3, 2023

Globus Medical Inc. Kelly Baker, Ph.D. Senior Vice President, Regulatory and Clinical Affairs 2560 General Armistead Ave. Audubon, Pennsylvania 19403

Re: K221894

Trade/Device Name: CALIBER® Spacer, RISE® Spacer, LATIS® Spacer, ALTERA® Spacer,

MAGNIFY® Spacer, SABLE® Expandable Spacer, MONUMENT® Spacers

Regulation Number: 21 CFR 888.3080

Regulation Name: Intervertebral Body Fusion Device

Regulatory Class: Class II Product Code: MAX, OVD

Dated: June 29,2023 Received: June 30, 2023

Dear Dr. Baker:

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. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <a href="https://www.accessdata.fda.gov/scripts/edrh/cfdocs/cfpmn/pmn.cfm">https://www.accessdata.fda.gov/scripts/edrh/cfdocs/cfpmn/pmn.cfm</a> identifies combination product submissions. 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 <u>Federal Register</u>.

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) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <a href="https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products">https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products</a>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

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 <a href="https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems">https://www.fda.gov/medical-device-problems</a>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance</a>) and CDRH Learn (<a href="https://www.fda.gov/training-and-continuing-education/cdrh-learn">https://www.fda.gov/training-and-continuing-education/cdrh-learn</a>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice</a>) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

## **Brent Showalter -S**

Brent Showalter, Ph.D.
Assistant Director
DHT6B: Division of Spinal Devices
OHT6: Office of Orthopedic Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

Form Approved: OMB No. 0910-0120

Expiration Date: 06/30/2023

Indications for Use	See PRA Statement below.
510(k) Number (if known)	
K221894	
Device Name CALIBER® Spacer	
Indications for Use (Describe) CALIBER® Spacers are interbody fusion devices intended for use at one or more level thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous function of the disc confirmed by history a patients should be skeletally mature and have had at least six (6) months of non-oper coated spacers are indicated for the same use as non-coated PEEK spacers.  CALIBER® Spacers are to be filled with autograft bone and/or allogenic bone graft corticocancellous bone. These devices are intended to be used with supplemental fixe for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems screw and rod systems).	on in patients with the following or radiculopathy), spondylolisthesis, usion (pseudarthrosis). DDD is nd radiographic studies. These ative treatment. All CALIBER® TPS composed of cancellous and/or ation systems that have been cleared
Type of Use (Select one or both, as applicable)	
Prescription Use (Part 21 CFR 801 Subpart D) Over-The-Count	er Use (21 CFR 801 Subpart C)

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Form Approved: OMB No. 0910-0120

Food and Drug Administration	Expiration Date: 06/30/2023
Indications for Use	See PRA Statement below.
510(k) Number <i>(if known)</i>	
K221894	
Device Name RISE® Spacer	
Indications for Use (Describe) The RISE® Spacer is an interbody fusion device intended for use at one or more levithoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusi indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous findefined as discogenic back pain with degeneration of the disc confirmed by history apatients should be skeletally mature and have had at least six (6) months of non-oper The RISE® Spacer is to be filled with autograft bone and/or allogenic bone graft concorticocancellous bone. This device is intended to be used with supplemental fixation use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, a screw and rod systems).	on in patients with the following or radiculopathy), spondylolisthesis, usion (pseudarthrosis). DDD is and radiographic studies. These rative treatment.  In posed of cancellous and/or a systems that have been cleared for

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

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

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#### Indications for Use

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Expiration Date: 06/30/2023 See PRA Statement below.

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

indications for use	See FIVA Statement below.
510(k) Number (if known) K221894	
Device Name LATIS® Spacer	
Indications for Use (Describe) LATIS® Spacers are interbody fusion devices intended for use at one or more levels thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fus indications: degenerative disc disease (DDD), disc herniation (with myelopathy and deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous f defined as discogenic back pain with degeneration of the disc confirmed by history a patients should be skeletally mature and have had at least six (6) months of non-ope LATIS® Spacers are to be filled with autograft bone and/or allogenic bone graft cor corticocancellous bone. These devices are intended to be used with supplemental fix for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod system screw and rod systems).	ion in patients with the following /or radiculopathy), spondylolisthesis, iusion (pseudarthrosis). DDD is and radiographic studies. These rative treatment.  mposed of cancellous and/or ration systems that have been cleared
Type of Use (Select one or both, as applicable)	

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Prescription Use (Part 21 CFR 801 Subpart D)

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

510(k) Number (if known)
K221894
Device Name ALTERA® Spacer
Indications for Use (Describe) The ALTERA® Spacer is an interbody fusion device intended for use at one or more levels of the thoracic spine (T1-T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment.
The ALTERA® Spacer is to be filled with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone. These devices are intended to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).
Type of Use (Select one or both, as applicable)

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Prescription Use (Part 21 CFR 801 Subpart D)

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Indications for Use	See PRA Statement below.	
510(k) Number (if known) K221894		
Device Name MAGNIFY® Spacer		
Indications for Use (Describe) The MAGNIFY® Spacer is an interbody fusion device intended for use at one or me T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct following indications: degenerative disc disease (DDD), disc herniation (with myeld spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the cradiographic studies. These patients should be skeletally mature and have had at least treatment.	to fusion in patients with the opathy and/or radiculopathy), and failed previous fusion lisc confirmed by history and	
The MAGNIFY® Spacer is to be filled with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone, and is to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).		
Type of Use (Select one or both, as applicable)	iter Use (21 CFR 801 Subpart C)	
Prescription Use (Part 21 CFR 801 Subpart D) Over-The-Cour		

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#### **Indications for Use**

510(k) Number (if known)

Form Approved: OMB No. 0910-0120 Expiration Date: 06/30/2023

Expiration Date: 06/30/2023 See PRA Statement below.

K221894		
Device Name SABLE® Expandable Spacer		
Indications for Use (Describe)  SABLE® Expandable Spacer is an interbody fusion device intended for use at one or more levels of the thoracic spine (T1-T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment. The spacer is to be filled with autograft and/or allogenic bone graft comprised of cancellous and/or corticocancellous bone and is to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).		
Type of Use (Select one or both, as applicable)		
Prescription Use (Part 21 CFR 801 Subpart D) Over-The-Counter Use (21 CFR 801 Subpart C)		
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#### Indications for Use

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Expiration Date: 06/30/2023
See PRA Statement below.

510(k) Number (if known)	
K221894	
Device Name	
MONUMENT® Spacers	
Indications for Use (Describe)	
The MONUMENT® Spacer is an interbody fusion device indicated for use at one or	more levels of the lumbosacral spine
(L1-S1), as an adjunct to fusion in patients with the following indications: degenerat	ive disc disease (DDD), disc
herniation (with myelopathy and/or radiculopathy), deformity (degenerative scoliosis	s or kyphosis), spinal stenosis, and

operative treatment. All MONUMENT® TPS coated spacers are indicated for the same use as non-coated spacers.

The MONUMENT® Spacer is to be used with four screws that accompany the implant. These devices are intended for use with supplemental fixation (e.g., facet screws or posterior fixation). The MONUMENT® Spacer is to be filled with

retrolisthesis at the involved level(s). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-

failed previous fusion (pseudarthrosis). In addition, these patients may have up to Grade 2 spondylolisthesis or

autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone.

Type of Use (Select one or both, as applicable)	
Prescription Use (Part 21 CFR 801 Subpart D)	Over-The-Counter Use (21 CFR 801 Subpart C)

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510(k) Summary: CALIBER®, RISE®, LATIS®, ALTERA®, MAGNIFY®, SABLE®, and MONUMENT® Updated Indications & Additional Implants

**Company:** Globus Medical Inc.

2560 General Armistead Ave.

Audubon, PA 19403

610-930-1800

**Contact:** Kelly Baker, Ph.D.

Senior Vice President, Regulatory and Clinical Affairs

Date Prepared: July 31, 2023

**Device Name:** CALIBER® Spacer

RISE® Spacer LATIS® Spacer ALTERA® Spacer MAGNIFY® Spacer

SABLE® Expandable Spacer MONUMENT® Spacers

**Common Name:** Intervertebral Body Fusion Device

**Classification:** Per 21 CFR as follows:

§888.3080 Intervertebral Body Fusion Device

Product Code(s): MAX, OVD

Regulatory Class: II, Panel Code: 87

**Primary Predicate:** HEDRON<sup>®</sup> Lumbar Spacers (K191391)

Other Predicates: CALIBER® Spacer (K102293, K123231, K171848)

RISE® Spacer (K113447) LATIS® Spacer (K123913)

ALTERA® Spacer (K140411, K171848)
MAGNIFY® Spacer (K142498, K203278)
SABLE® Expandable Spacer (K192115)

MONUMENT® Spacers (K132559, K203278)

Toro-L Interbody Fusion System (K203038, K213355) NuVasive Modulus Expandable Posterior Lumbar MOD-EX

PL Interbody Spacer (K210214)

NuVasive MOD-EX XLIF Interbody System (K210439)

#### **Purpose:**

The purpose of this submission is to request clearance for additional indications for CALIBER®, RISE®, LATIS®, ALTERA®, MAGNIFY®, SABLE®, and MONUMENT® spacers and for additional sterile implants.

# Device Description: CALIBER® Spacers

CALIBER® Spacers are lumbar interbody fusion devices used to provide structural stability in skeletally mature individuals following discectomy. CALIBER® Spacers provide different shapes to accommodate various surgical approaches to the lumbar spine (posterior, transforaminal [posterolateral] or lateral). The devices are available in various heights and geometric options to fit the anatomical needs of a wide variety of patients. Protrusions on the superior and inferior surfaces of each device grip the endplates of the adjacent vertebrae to resist expulsion.

#### RISE® Spacers

RISE® Spacers are lumbar interbody fusion devices used to provide structural stability in skeletally mature individuals following discectomy. RISE® Spacers are provided in different shapes to accommodate various surgical approaches to the lumbar spine (posterior, transforaminal [posterolateral] or lateral) and can expand to the desired height. The implants are available in various heights and geometric options to fit the anatomical needs of a wide variety of patients. Protrusions on the superior and inferior surfaces of each device grip the endplates of the adjacent vertebrae to resist expulsion.

#### LATIS® Spacers

LATIS® Spacers are lumbar interbody fusion devices used to provide structural stability in skeletally mature individuals following discectomy. LATIS® Spacers are provided in a shape that accommodates a posterior, transforaminal, or lateral approach to the lumbar spine; after insertion the implant can be transformed to the desired footprint. The devices are available in various heights and geometric options to fit the anatomical needs of a wide variety of patients. Protrusions on the superior and inferior surfaces of each device grip the endplates of the adjacent vertebrae to resist expulsion.

### ALTERA® Spacers

The ALTERA® Spacer is an expandable lumbar interbody fusion device used to provide structural stability in skeletally mature individuals following discectomy. The ALTERA® Spacer accommodates various surgical approaches to the lumbar spine (posterior or transforaminal [posterolateral]) and allows articulation upon insertion. The devices are available in various height ranges, allowing continuous expansion within the range, to fit the anatomical needs of a wide variety of patients. Protrusions on the superior and inferior surfaces of each device grip the endplates of the adjacent vertebrae to resist expulsion.

#### MAGNIFY® Spacers

MAGNIFY® Spacers are expandable anterior lumbar interbody fusion devices used to provide structural stability in skeletally mature individuals following discectomy. The devices are available in various height expansion ranges and geometric options to fit the anatomical needs of a wide variety of patients. Protrusions on the superior and inferior surfaces of each device grip the endplates of the adjacent vertebrae to aid in expulsion resistance.

#### SABLE® Spacers

SABLE® Spacers are expandable lumbar interbody fusion devices used to provide structural stability in skeletally mature individuals following discectomy. The devices are available in various heights and geometric options to fit the anatomical needs of a wide variety of patients.

#### **MONUMENT®** Spacers

The MONUMENT® Spacer is an anterior lumbar interbody fusion device used to provide structural stability in skeletally mature individuals following discectomy. The MONUMENT® Spacer is intended to aid in reduction of a Grade 1 spondylolisthesis. The spacers are available in various heights and geometric options to fit the anatomical needs of a wide variety of patients. Protrusions on the superior and inferior surfaces of each device grip the endplates of the adjacent vertebrae to aid in expulsion resistance. Screws are inserted through the anterior titanium portion of the implant into adjacent vertebral bodies for bony fixation.

# Indications for Use: CALIBER® Spacers

CALIBER® Spacers are interbody fusion devices intended for use at one or more levels of the thoracic spine (T1-T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment. All CALIBER® TPS coated spacers are indicated for the same use as non-coated PEEK spacers.

CALIBER® Spacers are to be filled with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone. These devices are intended to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).

#### RISE® Spacers

The RISE® Spacer is an interbody fusion device intended for use at one or more levels of the thoracic spine (T1-T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment.

The RISE® Spacer is to be filled with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone. This device is intended to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).

#### LATIS® Spacers

LATIS® Spacers are interbody fusion devices intended for use at one or more levels of the thoracic spine (T1-T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment.

LATIS® Spacers are to be filled with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone. These devices are intended to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).

#### ALTERA® Spacers

The ALTERA® Spacer is an interbody fusion device intended for use at one or more levels of the thoracic spine (T1-T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment.

The ALTERA® Spacer is to be filled with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone. These devices are intended to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).

#### MAGNIFY® Spacers

The MAGNIFY® Spacer is an interbody fusion device intended for use at one or more levels of the thoracic spine (T1-T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment.

The MAGNIFY® Spacer is to be filled with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone, and is to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).

#### SABLE® Expandable Spacer

SABLE® Expandable Spacer is an interbody fusion device intended for use at one or more levels of the thoracic spine (T1-T12), thoracolumbar junction (T12-L1), or lumbosacral spine (L1-S1) as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), spondylolisthesis, deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment. The spacer is to be filled with autograft and/or allogenic bone graft comprised of cancellous and/or corticocancellous bone and is to be used with supplemental fixation systems that have been cleared for use in the thoracolumbosacral spine (e.g., posterior pedicle screw and rod systems, anterior plate systems, and anterior screw and rod systems).

#### **MONUMENT®** Spacers

The MONUMENT® Spacer is an interbody fusion device indicated for use at one or more levels of the lumbosacral spine (L1-S1), as an adjunct to fusion in patients with the following indications: degenerative disc disease (DDD), disc herniation (with myelopathy and/or radiculopathy), deformity (degenerative scoliosis or kyphosis), spinal stenosis, and failed previous fusion (pseudarthrosis). In addition, these patients may have up to Grade 2 spondylolisthesis or retrolisthesis at the

involved level(s). DDD is defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies. These patients should be skeletally mature and have had at least six (6) months of non-operative treatment. All MONUMENT® TPS coated spacers are indicated for the same use as non-coated spacers.

The MONUMENT® Spacer is to be used with four screws that accompany the implant. These devices are intended for use with supplemental fixation (e.g. facet screws or posterior fixation). The MONUMENT® Spacer is to be filled with autograft bone and/or allogenic bone graft composed of cancellous and/or corticocancellous bone.

#### Performance Data:

Confirmatory mechanical testing was conducted on CALIBER® and RISE® spacers in accordance with ASTM F2077. Cadaveric testing was conducted on MONUMENT® spacers to support Grade 2 spondylolisthesis or retrolisthesis indications. The sterilization and biocompatibility testing are unchanged for the subject and predicate devices. A biocompatibility risk assessment was conducted to assess the new sterile devices. No further sterilization or biocompatibility testing was required for this submission.

#### **Technological Characteristics:**

Subject implants have the same technological characteristics as the predicate devices including design, intended use, material composition, function, and range of sizes.

#### **Basis of Substantial Equivalence:**

Subject spacers have been found to be substantially equivalent to the predicate devices with respect to technical characteristics, performance, and intended use. The information provided within this premarket notification supports substantial equivalence of the subject spacers to the predicate devices.