



December 20, 2023

GBS Commonwealth Co., Ltd.
Sungji Yoon
RA
C-309, Woolim Lion's Valley, 168, Gasan Digital 1-ro
Geumcheon-gu, Seoul 08507
South Korea

Re: K233839

Trade/Device Name: Peridot-PT Anterior Cervical Intervertebral body fusion System; Peridot-PT Intervertebral body fusion system; The Peridot-TD Anterior Cervical Intervertebral body fusion system; The Peridot-TD Intervertebral body fusion system

Regulation Number: 21 CFR 888.3080

Regulation Name: Intervertebral Body Fusion Device

Regulatory Class: Class II

Product Code: ODP, MAX

Dated: December 4, 2023

Received: December 4, 2023

Dear Sungji Yoon:

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 (the 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 available at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> 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 Federal Register.

Additional information about changes that may require a new premarket notification are provided in the FDA guidance documents entitled "Deciding When to Submit a 510(k) for a Change to an Existing Device" (<https://www.fda.gov/media/99812/download>) and "Deciding When to Submit a 510(k) for a Software Change to an Existing Device" (<https://www.fda.gov/media/99785/download>).

Your device is also subject to, among other requirements, the Quality System (QS) regulation (21 CFR Part 820), which includes, but is not limited to, 21 CFR 820.30, Design controls; 21 CFR 820.90, Nonconforming product; and 21 CFR 820.100, Corrective and preventive action. Please note that regardless of whether a change requires premarket review, the QS regulation requires device manufacturers to review and approve changes to device design and production (21 CFR 820.30 and 21 CFR 820.70) and document changes and approvals in the device master record (21 CFR 820.181).

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 Part 803) for devices or postmarketing safety reporting (21 CFR Part 4, Subpart B) for combination products (see <https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>); 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 Part 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR Parts 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance>) and CDRH Learn (<https://www.fda.gov/training-and-continuing-education/cdrh-learn>). 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 (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice>) 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

Indications for Use

510(k) Number (if known)
K233839

Device Name

Peridot-PT Anterior Cervical Intervertebral body fusion System; Peridot-PT Intervertebral body fusion system; The Peridot-TD Anterior Cervical Intervertebral body fusion system; The Peridot-TD Intervertebral body fusion system

Indications for Use (Describe)

Peridot-PT Anterior Cervical Intervertebral body fusion System

The Peridot-PT Anterior Cervical Intervertebral body fusion system is intended for use for anterior cervical interbody fusion in skeletally mature patients with cervical disc degeneration and/or cervical spinal instability, as confirmed by imaging studies (radiographs, CT, MRI), that results in radiculopathy, myelopathy, and/or pain at one or multiple contiguous levels from C2-T1. The Peridot-PT Anterior Cervical Intervertebral body fusion system is also to be used with supplemental fixation systems that have been cleared for use in the cervical spine.

These patients should have had at least six weeks of nonoperative treatment.

The Peridot-PT Anterior Cervical Intervertebral body fusion system is designed for use with autogenous and/or allogeneic bone graft comprised of cancellous and/or corticocancellous bone graft to facilitate fusion.

Peridot-PT Intervertebral body fusion system

The Peridot-PT Intervertebral body fusion system is indicated for intervertebral body fusion procedures in skeletally mature patients with degenerative disc disease (DDD) at one or two contiguous levels from L2-S1. DDD is defined as discogenic back pain with degeneration of the disc confirmed by patient history and radiographic studies. These DDD patients may also have up to Grade 1 spondylolisthesis or retrolisthesis at the involved level(s). This device is to be used with autogenous bone graft. The Peridot-PT Intervertebral body fusion system is to be used with supplemental fixation. Patients should have at least six (6) months of non-operative treatment prior to treatment with an intervertebral cage.

The Peridot-TD Anterior Cervical Intervertebral body fusion system

The Peridot-TD Anterior Cervical Intervertebral body fusion system is intended for use for anterior cervical interbody fusion in skeletally mature patients with cervical disc degeneration and/or cervical spinal instability, as confirmed by imaging studies (radiographs, CT, MRI), that results in radiculopathy, myelopathy, and/or pain at one or multiple contiguous levels from C2-T1. The Peridot-TD Anterior Cervical Intervertebral body fusion system is also to be used with supplemental fixation systems that have been cleared for use in the cervical spine.

These patients should have had at least six weeks of nonoperative treatment.

The Peridot-TD Anterior Cervical Intervertebral body fusion system is designed for use with autogenous and/or allogeneic bone graft comprised of cancellous and/or corticocancellous bone graft to facilitate fusion.

The Peridot-TD Intervertebral body fusion system

The Peridot-TD Intervertebral body fusion system is indicated for intervertebral body fusion procedures in skeletally mature patients with degenerative disc disease (DDD) at one or two contiguous levels from L2-S1. DDD is defined as discogenic back pain with degeneration of the disc confirmed by patient history and radiographic studies. These DDD patients may also have up to Grade 1 spondylolisthesis or retrolisthesis at the involved level(s). This device is to be used with autogenous bone graft.

The Peridot-TD Intervertebral body fusion system is to be used with supplemental fixation. Patients should have at least six (6) months of nonoperative treatment prior to treatment with an intervertebral cage.

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)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

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SUMMARY

The following summary is being submitted as required by 21 CFR 807.92(a):

1. Device Identification

Submitter: GBS Commonwealth Co., Ltd.
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Contact Person: Lily yoon

Date prepared December, 14, 2023

Trade Name	Peridot-PT Anterior Cervical Intervertebral body fusion System, Peridot-PT Intervertebral body fusion system, The Peridot-TD Intervertebral body fusion system, The Peridot-TD Anterior Cervical Intervertebral body fusion system
Regulatory Class	Class II
Classification Name	Intervertebral body fusion device (21 CFR 888.3080)
Panel	Orthopedic
Product Code	ODP, MAX

2. Purpose of 510(k)

The GBS Commonwealth Co. Ltd., here by submits this submission: for product Introduction of The subject device has the same previously cleared K233084 and K232822. All processes are the same. The subject devices want to combine different numbers (K232822 and K233084).

3. Predicate or legally marketed devices which are substantially equivalent

Primary Predicate Device : K232822 Peridot-TD Spacer system (The Peridot-TD Intervertebral body fusion system), Anterior cervical



interbody fusion - ACIF (The Peridot-TD Anterior Cervical Intervertebral body fusion system)/ GBS Commonwealth

Additional Predicate Device : K233084 Peridot-PT Anterior Cervical Intervertebral body fusion System, Peridot-PT Intervertebral body fusion system)/ GBS Commonwealth

4. Description of the Device

4-1) Peridot-PT Anterior Cervical Intervertebral body fusion System, Peridot-PT Intervertebral body fusion system

The Peridot-PT Cages are a comprehensive portfolio of 3D-printed porous titanium interbody devices intended to stabilize the spinal segment, restore intervertebral height and to facilitate interbody fusion in the cervical (C2-T1) and lumbar spine (L2-S1). Designed to treat cervical and lumbar degenerative disc disease, the platform consists of the Cervical, Transforaminal (TLIF), Direct Lateral (LLIF), Anterior (ALIF) and Transforaminal / Posterior Lumbar (T/PLIF) systems. Each system features a full breadth of sizes, footprints, heights and angles. The devices are intended to be used with supplemental spinal fixation, either applied anterior or posterior (e.g. using posterior pedicle screws, anterior plate system or anterior screw and rod system). The devices are to be sterilized by gamma radiation per ISO 11137 or provided non-sterile. The non-sterile devices are to be sterilized by steam sterilization per ISO 17665.

The Peridot-PT Cages are made from Ti-6Al-4V ELI conforming to ASTM F3001 with an additive manufacturing process (Selective Laser Melting). The design contains solid structures and porous structures. The hollow geometry of the implants allows them to be packed with autogenous bone graft comprised of Cancellous and/or corticocancellous bone graft.

The hyperlordotic lumbar cages (>20 degree) the form of supplement fixation



should be an anterior plate system.

4-2) The Peridot-TD Intervertebral body fusion system, The Peridot-TD Anterior Cervical Intervertebral body fusion system

This product is intervertebral fusion device manufactured from poly-ether-ether-ketone (PEEK) per ASTM F2026 with tantalum markers per ASTM F560 for radiographic visualization. The implants have a 0.5 ~ 1.0 micron thick surface coat of commercially pure (CP) titanium per ASTM F67. And some cage holders are made of titanium alloy as per ASTM F136. The device have a central canal for receiving autogenous bone graft and offered in a variety of sizes and geometries to accommodate variations in pathology and patient anatomy. Designed to treat cervical and lumbar degenerative disc disease, the platform consists of Cervical, Transforaminal (TLIF), Direct Lateral (LLIF), Anterior (ALIF) and Transforaminal / Posterior Lumbar (T/PLIF) systems. Each system features a full breadth of sizes, footprints, heights and angles. Tantalum marker on the cage permits the identification of cage position and allows post-operative assessment. The ends of the implants have machined teeth which are designed to engage with the vertebral body end plates. The devices are intended to be used with supplement spinal fixation, either applied anterior or posterior (e.g. using posterior pedicle screws, anterior plate system or anterior screw and rod system). The devices are to be sterilized by gamma radiation per ISO 11137 or provided non-sterile. The non-sterile devices are to be sterilized by steam sterilization per ISO 17665. The hyperlordotic lumbar cages (>20 degree) the form of supplemental fixation should be an anterior plate system. The device is supplied with their specific instrument. The device must be used in combination with the dedicated instrument supplied. The specific instrument is supplied dedicated tray and non-sterile.

5. Indication for Use

5-1) Peridot-PT Anterior Cervical Intervertebral body fusion System

The Peridot-PT Anterior Cervical Intervertebral body fusion system is intended for use for



anterior cervical interbody fusion in skeletally mature patients with cervical disc degeneration and/or cervical spinal instability, as confirmed by imaging studies (radiographs, CT, MRI), that results in radiculopathy, myelopathy, and/or pain at one or multiple contiguous levels from C2-T1. The Peridot-PT Anterior Cervical Intervertebral body fusion system is also to be used with supplemental fixation systems that have been cleared for use in the cervical spine.

These patients should have had at least six weeks of nonoperative treatment.

The Peridot-PT Anterior Cervical Intervertebral body fusion system is designed for use with autogenous and/or allogeneic bone graft comprised of cancellous and/or corticocancellous bone graft to facilitate fusion.

5-2) Peridot-PT Intervertebral body fusion system

Peridot-PT Intervertebral body fusion system is indicated for intervertebral body fusion procedures in skeletally mature patients with degenerative disc disease (DDD) at one or two contiguous levels from L2-S1. DDD is defined as discogenic back pain with degeneration of the disc confirmed by patient history and radiographic studies. These DDD patients may also have up to Grade 1 spondylolisthesis or retrolisthesis at the involved level(s). This device is to be used with autogenous bone graft. Peridot-PT Intervertebral body fusion system is to be used with supplemental fixation. Patients should have at least six (6) months of non-operative treatment prior to treatment with an intervertebral cage.

5-3) The Peridot-TD Anterior Cervical Intervertebral body fusion system

The Peridot-TD Anterior Cervical Intervertebral body fusion system is intended for use for anterior cervical interbody fusion in skeletally mature patients with cervical disc degeneration and/or cervical spinal instability, as confirmed by imaging studies (radiographs, CT, MRI), that results in radiculopathy, myelopathy, and/or pain at one or multiple contiguous levels from C2-T1. The Peridot-TD Anterior Cervical Intervertebral body fusion system is also to be used with supplemental fixation systems that have been cleared for use in the cervical spine.

The Peridot-TD Anterior Cervical Intervertebral body fusion system is designed for use with autogenous and/or allogeneic bone graft comprised of cancellous and/or corticocancellous bone graft to facilitate fusion.



5-4) The Peridot-TD Intervertebral body fusion system

The Peridot-TD Intervertebral body fusion system is indicated for intervertebral body fusion procedures in skeletally mature patients with degenerative disc disease (DDD) at one or two contiguous levels from L2-S1. DDD is defined as discogenic back pain with degeneration of the disc confirmed by patient history and radiographic studies. These DDD patients may also have up to Grade 1 spondylolisthesis or retrolisthesis at the involved level(s). This device is to be used with autogenous bone graft. The Peridot-TD Intervertebral body fusion system is to be used with supplemental fixation. patients should have at least six (6) months of nonoperative treatment prior to treatment with an intervertebral cage.

6. Comparison of the technological characteristics of the subject and predicate devices

The subject device has the same previously cleared K233084 and K232822. All processes are the same. The subject device want to combine different numbers (K232822 and K233084).

7. Performance Testing

The worst-case devices were tested.

1) Peridot-PT Anterior Cervical Intervertebral body fusion System

- Static Compression : ASTM F2077
- Static Compression – shear : ASTM F2077
- Static Torsion : ASTM F2077
- Fatigue Compression : ASTM F2077
- Fatigue Compression – shear : ASTM F2077
- Fatigue Torsion : ASTM F2077
- Subsidence : ASTM F2267

2) Peridot-PT Intervertebral body fusion system

- Static Compression : ASTM F2077
- Static Compression – Shear : ASTM F2077
- Fatigue Compression : ASTM F2077



- Fatigue Compression – Shear : ASTM F2077
- Subsidence : ASTM F2267

3) The Peridot-TD Anterior Cervical Intervertebral body fusion system

- Static Compression (ASTM F2077)
- Static Torsion (ASTM F2077)
- Fatigue Compression (ASTM F2077)
- Fatigue Torsion (ASTM F2077)
- Subsidence (ASTM F2267)
- Static Tensile (ASTM F1147)
- Static Shear (ASTM F1044)
- Fatigue Shear (ASTM F1160)
- Wear (ASTM F1978)

4) The Peridot-TD Intervertebral body fusion system

- Static Compression (ASTM F2077)
- Static Compression-shear (ASTM F2077)
- Fatigue Compression (ASTM F2077)
- Fatigue Compression-shear (ASTM F2077)
- Subsidence (ASTM F2267)
- Static Tensile (ASTM F1147)
- Static Shear (ASTM F1044)
- Fatigue Shear (ASTM F1160)
- Wear (ASTM F1978)

8. Conclusion

Based on the information provided in this premarket notification of GBS Commonwealth Co., Ltd. concludes that Peridot-PT Anterior Cervical Intervertebral body fusion System, Peridot-PT Intervertebral body fusion system, The Peridot-TD Intervertebral body fusion system, The Peridot-TD Anterior Cervical Intervertebral body fusion system are substantially equivalent to predicate devices.