November 7, 2019

Medeon Biodesign, Inc
Tsung-Yu Hsieh
Sr. Specialist of Regulatory, Quality and Clinical Affairs
7F, 116 HouGang St.,
Taipei, Taiwan 11170

Re: K192891
Trade/Device Name: Laparoscope Lens Shield Device (LENS)
Regulation Number: 21 CFR 876.1500
Regulation Name: Endoscope and Accessories
Regulatory Class: Class II
Product Code: GCJ
Dated: October 9, 2019
Received: October 10, 2019

Dear Tsung-Yu Hsieh:

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 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.

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 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 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 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,

Long Chen, PhD
Assistant Director
DHT4A: Division of General Surgery Devices
OHT4: Office of Surgical and Infection Control Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

Indications for Use

Form Approved: OMB No. 0910-0120
Expiration Date: 06/30/2020
See PRA Statement below.

510(k) Number *(if known)*
K192891

Device Name
Laparoscope Lens Shield Device (LENS)

Indications for Use *(Describe)*
Laparoscope Lens Shield Device (LENS), a sterile, single-use and disposable laparoscopic accessory lens shield device, for various sizes of laparoscopes including standard and bariatric laparoscope, intended to maintain the intra-operative view of the surgical site during minimally invasive surgery by physically shielding the laparoscope lens from debris, grease, blood, and bodily fluids.

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.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

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Section 6. 510(k) Summary

510(k) Summary of Safety and Effectiveness

This 510(k) summary of safety and effectiveness information is submitted as part of the Premarket Notification in compliance with requirements of CFR Part 807, Subpart E and Section 807.92.

The assigned 510(k) Number: **K192891**
Date Prepared: **9 October 2019**

1. **Submitter**

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2 **Device Name**

Common or usual name	Laparoscope Lens Shield Device (LENS)
Trade Name	ClickClean
Product Code	GCJ
Device	Endoscope and accessories
CFR Classification	CFR Part 876.1500
Device Class	II
Classification Panel	Gastroenterology/Urology

3 **Predicate k number** K170103

4 **Device Description:** The Laparoscope Lens Shield Device (LENS) is a laparoscopic accessory lens shielding device consisting of multi-lumen sheath that slides over the laparoscope. The sheath assembling consists of 2 concentric sheaths: one outer and one end-to-end connected inner sheaths.

		The outer sheath provides protection and cover for the inner sheath and shielding film. It is intended to maintain the intra-operative view of the surgical site during minimally invasive surgery by physically shielding the laparoscope lens from debris, grease, blood, and bodily fluids.
5.	**Intended Use:**	Laparoscope Lens Shield Device (LENS), a sterile, single-use and disposable laparoscopic accessory lens shield device, for various sizes of laparoscopes including standard and bariatric laparoscope, intended to maintain the intra-operative view of the surgical site during minimally invasive surgery by physically shielding the laparoscope lens from debris, grease, blood, and bodily fluids.
	Special Conditions for Use Statement(s):	For prescription use only
6.	**Technological Characteristics and Substantial Equivalence Comparison with Predicate**:	Modifications in design and material of the previously 510(k) cleared Laparoscope Lens Shield Device (K170103) resulted in one (1) additional model to accommodate laparoscopes with 5mm outer diameter. A comparison of the device features, intended use, and other information demonstrates that the modified device is substantially equivalent to the predicate device as summarized in **Table 1**. The differences raise no additional or different questions of safety or effectiveness.

Table 1: Substantially Equivalent Table

Similarities		
	Predicate device (K170103) Model #L042	**Modified device Model #US030-SO**
Device Specification	10mm/ 0° / 42cm	5mm/ 0° / 30cm

Similarities		
	Predicate device (K170103) Model #L042	**Modified device Model #US030-SO**
Intended Use	Laparoscope Lens Shield Device (LENS), a sterile, single-use and disposable laparoscopic accessory lens shield device, for various sizes of laparoscopes including standard and bariatric laparoscope, intended to maintain the intra-operative view of the surgical site during minimally invasive surgery by physically shielding the laparoscope lens from debris, grease, blood, and bodily fluids.	Same Laparoscope Lens Shield Device (LENS), a sterile, single-use and disposable laparoscopic accessory lens shield device, for various sizes of laparoscopes including standard and bariatric laparoscope, intended to maintain the intra-operative view of the surgical site during minimally invasive surgery by physically shielding the laparoscope lens from debris, grease, blood, and bodily fluids.
Target Patient Population	Patient under laparoscopic surgery	Same
Target User Population	Clinician who is qualified to perform a laparoscopic surgery	Same
Anatomical Site	Abdominopelvic cavity	Same
Where Used	Hospital O.R. room	Same
Contraindications	There are no known contraindications for modified device	Same
Method of Introduction	Predicate device is introduced into abdominopelvic cavity via a trocar	Same
Performance	Enable to maintain the intra-operative view when it gets soiled by debris	Same
Biocompatible for Intended Use	Limited exposure, external communication device of tissue contact. Pass biocompatibility tests in accordance with the requirements of FDA guidance Use of International Standard ISO- 10993-1, "Biological Evaluation of Medical Devices, Part 1: Evaluation and Testing within a risk management process", dated 06-16-2016	Same Pass the cytotoxicity, sensitization, irritation, acute systemic toxicity, and pyrogenicity tests.

Similarities		
	Predicate device (K170103) Model #L042	**Modified device Model #US030-SO**
Sterilization Method	Ethylene Oxide sterilization, SAL of 10^{-6}	Same
Energy source	No energy source	Same
Compatibility	**Laparoscope:** 10mm/ 0° / 42cm (bariatric) **Trocar:** 12mm	**Laparoscope:** 5mm/ 0° /30cm (standard) **Trocar:** 5 mm

7. Performance Testing

The following performance testing for the design modification demonstrated substantial equivalence to the previously cleared predicate:

Biocompatibility testing

Per material changes, the biocompatibility evaluation and testing of the Laparoscope Lens Shield Device (LENS) was conducted in accordance with the following standards and guidance, as recognized by the FDA:

- FDA Guidance - Use of International Standard ISO- 10993-1, "Biological Evaluation of Medical Devices, Part 1: Evaluation and Testing within a risk management process", dated 06-16-2016
- ISO 10993-5:2009 Biological evaluation of medical devices- Part 5: Tests for in vitro cytotoxicity
- ISO 10993-10:2009 Biological evaluation of medical devices- Part 10: Tests for irritation and skin sensitization
- ISO 10993-11:2006 Biological evaluation of medical devices- Part 11: Tests for systemic toxicity.
- United State Pharmacopeia (USP) Chapter <151> Rabbit Pyrogen Test

Mechanical testing

The mechanical function and structure integrity of modified device were tested to demonstrate that the design specifications from design input are fulfilled and the design modifications do not affect safety and function of the device.

Functional testing

Device functionality was tested in the animal model to demonstrate that the intended use is fulfilled. Design modifications do not affect the function and intended use of device.

8. Conclusion

Based on the intended use, technological characteristics, comparison to the predicate device and performance testing, the modified device is substantially equivalent to the predicate device and raises no additional or different questions of safety or effectiveness.