

**Attachment B**

**JUL 01 2014**

**5. 510(k) Summary or 510(k) Statement**

**510(k) SUMMARY**

510(k) Owner	ViOptix Inc. 47224 Mission Falls Ct. Fremont, CA 94539 TEL: 510.226.5860 FAX: 510.226.5864
Contact person	Greg Holland Regulatory Consultant to ViOptix Inc. Regulatory Specialists, Inc. 3722 Ave. Sausalito Irvine, CA 92606 TEL: 949.262-0411 FAX: 949.552.2821 EMAIL: <a href="mailto:greg@regulatoryspecialists.com">greg@regulatoryspecialists.com</a>
Date summary was prepared	June 4, 2014
Common Name	Oximeter
Trade Name	ODISsey Tissue Oximeter
Classification Name	Oximeter, Tissue Saturation
Regulation	870.2700
Class	II
Panel	Cardiovascular
Product Code	MUD
Predicate	K042657, ViOptix ODISsey Tissue Oximeter

**Description**

The ODISsey Tissue Oximeter is an optically based device that non-invasively estimates the percent oxygen saturation (StO<sub>2</sub>) in a volume of tissue underneath the sensor.

**Intended Use**

The ODISsey Tissue Oximeter is intended for use as an estimate of the percent oxygen saturation (StO<sub>2</sub>).

**Indications for Use**

The ViOptix ODISsey Tissue Oximeter is intended to non-invasively estimate the percent oxygen saturation (StO<sub>2</sub>) in a volume of tissue. This is performed in medical environments including physician offices, hospitals, ambulatory care and Emergency Medical Services.

The ODISsey Tissue Oximeter is indicated for use in monitoring patients during circulatory or perfusion examinations of skeletal muscle or when there is a suspicion of compromised circulation.

#### Technological Characteristics

The technological characteristic of the ODISsey Tissue Oximeter remain unchanged from the predicate K042657. This Special 510(k) is being submitted for a change in patient contact materials and design.

The T.Ox™ Tissue Oximeter is a lightweight and portable, AC power-operated, unit with a lithium-ion battery backup that non-invasively estimates the percent oxygen saturation (StO<sub>2</sub>%) in a volume of tissue underneath the sensor. The console has a color LCD display monitor, a standard one sampling channel (with a two-channel option), and up to two fiber optic sensors. It has adjustable audible and visual alarms for:

- StO<sub>2</sub> low and high alarm limits
- Low battery

The T.Ox™ Tissue Oximeter has visual alarms.

The T.Ox™ Tissue Oximeter consists of three parts:

- Small computer console display module
- AC power cord
- Fiber optic sensor(s)

If the console is using two channels, both channels can be used at the same time. Each channel samples and displays data independently of the other channel. Each channel can accommodate one sensor.

#### Changes in the ViOptix ODISsey Tissue Oximeter from K042657.

	<b>Original K042657</b>	<b>New Design</b>
Sensor Use	Reusable	Single Use Only
Sterility	Sensor non sterile	Entire Sensor is sterilized
Packaging	Non Sterile package	Entire Sensor is in sterile package
Cable Cover	PVC for sheath	MD-565 a Thermoplastic Elastomer for sheath
Sensor Design	Can be laid flat and optionally taped in place	No Change
Sensor Material	Metal/Epoxy	No Change
Console	Electrical and Laser control system	No Change
Software	Control of ViOptix ODISsey Tissue	No Change

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	Oximeter	
Wavelengths	Laser Light	No Change
Laser Power	Amount of Laser power	No Change

**Conclusions from non-clinical performance data**

After performing non-clinical performance studies, Biocompatibility to ISO 10993, Packaging Validation, Sterilization Validations and Aging Studies, the data shows that the ODISsey Tissue Oximeter is substantially equivalent to the predicate as an estimate the percent oxygen saturation (StO<sub>2</sub>) in a volume of tissue.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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

July 1, 2014

Vioptix, Inc.  
Mark Lonsinger  
Greg Holland, Regulatory Specialists Inc.  
3722 Ave. Sausalito  
Irvine, California 92606

Re: K141234  
Trade/Device Name: Odissey Tissue Oximeter  
Regulation Number: 21 CFR 870.2700  
Regulation Name: Oximeter, Tissue Saturation  
Regulatory Class: Class II  
Product Code: MUD  
Dated: May 23, 2014  
Received: May 27, 2014

Dear Greg Holland,

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 Industry and Consumer Education 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 Industry and Consumer Education 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,

The logo of the U.S. Food and Drug Administration (FDA), featuring the letters 'FDA' in a stylized, bold font with a graphic element resembling a caduceus or a similar medical symbol behind the letters.

for Bram D. Zuckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

ODISsey Tissue Oximeter

**4. Indications for Use Statement**

Indications for Use

510(k) Number (if known): \_\_\_\_\_

Device Name: ODISsey Tissue Oximeter

Indications for Use:

The ViOptix ODISsey Tissue Oximeter is intended to non-invasively estimate the percent oxygen saturation (StO2) in a volume of tissue. This is performed in medical environments including physician offices, hospitals, ambulatory care and Emergency Medical Services.

The ODISsey Tissue Oximeter is indicated for use in monitoring patients during circulatory or perfusion examinations of skeletal muscle or when there is a suspicion of compromised circulation.

Prescription Use   X   AND/OR Over-The-Counter Use \_\_\_\_\_  
(Part 21 CFR 801 Subpart D) (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Date: 11-11-04  
