

Prosenex William McLain President and Principal Consultant 342 E. Main St. Suite 207 Leola, Pennsylvania 17540

MAR 1 3 2019

Re: K141208

Trade/Device Name: Dynamic Neuroscreening Device

Regulation Number: 21 CFR 882.1200 Regulation Name: Two-point discriminator

Regulatory Class: Class I Product Code: LLN, LQW Dated: May 5, 2014

Received: May 9, 2014

Dear William McLain:

This letter corrects our substantially equivalent letter of July 23, 2014.

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/cdrh/cfdocs/cfpmn/pmn.cfm">https://www.accessdata.fda.gov/scripts/cdrh/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/CombinationProducts/GuidanceRegulatoryInformation/ucm597488.htm">https://www.fda.gov/CombinationProducts/GuidanceRegulatoryInformation/ucm597488.htm</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="http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm">http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm</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/MedicalDevices/DeviceRegulationandGuidance/">https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/</a>) and CDRH Learn (<a href="http://www.fda.gov/Training/CDRHLearn">http://www.fda.gov/Training/CDRHLearn</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="http://www.fda.gov/DICE">http://www.fda.gov/DICE</a>) for more information or contact DICE by email (<a href="DICE@fda.hhs.gov">DICE@fda.hhs.gov</a>) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

# Michael J. Hoffmann -S

for Carlos L. Peña, PhD, MS
Director
Division of Neurological
and Physical Medicine Devices
Office of Device Evaluation
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: January 31, 2017 See PRA Statement below

			See Frod States Health Desiche.
510(k) Number (if k	snown)		
K14120	)8 <sup>.</sup>		•
Device Name			
Dynamic Neurosco	eening Device		
ndications for Use The Dynamic Ne by determining th	(Describe) uroscreening Device (DND) is intended to pro ue patient's ability to discriminate temperature	ovide objective medic e differences as well a	al screening for peripheral neuropathy s determining vibration sensitivity.
Type of Use (Selec	t one or both, as applicable)		
<b>⊠</b> F	Prescription Use (Part 21 CFR 801 Subpart D)	Over-The-Count	ter Use (21 CFR 801 Subpart C)
PLEA	SE DO NOT WRITE BELOW THIS LINE — C	ONTINUE ON A SEP	ARATE PAGE IF NEEDED.
	FOR FDA U		
Concurrence of Cer Felipe	nter for Devices and Radiological Health (CDRH) ( Date:	(Signature)	
Aguel -S	2014.07.23 21:16:49 -04'00'	•	

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

## \*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\*

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Department of Health and Human Services Food and Drug Administration Office of Chief Information Officer Paperwork Reduction Act (PRA) Staff PRAStaff@fda.hhs.gov

"An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid CMB number."

# JUL **2 3 2014** K141*20*8

# Section 5

# 510(K) Summary

### 5.1 Submission Correspondent and Owner

#### **Submission Correspondent**

Mr. William G. McLain President and Principal Consultant Keystone Regulatory Services, LLC 342 E. Main Street, Suite 207 Leola, PA 17540

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Email: bill.mclain@keystoncregulatory.com

## Sponsor (Owner)

Mr. James Bernhard Vice President Prosenex, LLC 33 Constitution Drive Hudson, NH 03051 Phone: 603-546-0457 Fax: 603-595-8277

email: jbernhard@prosenex.com

#### 5.2 Date Summary Prepared

May 2, 2014

#### 5.3 Device Trade Name

Dynamic Neuroscreening Device

#### 5.4 Device common name

Temperature Discrimination Device and Tuning Fork

#### 5.5 Device classification name

Temperature Discrimination Test, LQW, Unclassified

# 5.6 Legally Marketed Device To Which The Device Is Substantially Equivalent

The Dynamic Neuroscreening Device is substantially equivalent to:

- The Sensortek NTE-2 Thermal Sensory Tester cleared under K864345.
- The Somedic Vibrameter cleared under K843486.

#### 5.7 Description Of The Device

The Dynamic Neuroscreening Device (DND) is intended to screen patients and allow the practitioner to observe any changes of sensation over a period of time. The device will be available with a cradle which provides a docking location for the handle. The DND device provides medical practitioners with an objective method for screening patient's feet for neuropathy. The device uses two methods for long term screening with the objective of determining loss of sensation in the patient's foot: vibration sensitivity and temperature discrimination screening. The primary patient population is for those that are at risk or have been diagnosed with diabetes.

The DND is designed to be ergonomically comfortable in the practitioner's hand and simple to use. In addition safety features are installed to prevent the device from becoming excessively hot or cold to ensure patient safety. No electrical pathways are going to the patient and the power supply is UL approved to the medical device standard.

#### 5.8 Intended Use

The Dynamic Neuroscreening Device (DND) is intended to provide objective medical screening for peripheral neuropathy by determining the patient's ability to discriminate temperature differences as well as determining vibration sensitivity.

## 5.9 Technological Characteristics

The Dynamic Neuroscreening Device has identical technical characteristics as the predicate devices. Table 5.1 describes the basic features of the DND as compared to the Sensortek NTE-2 Thermal Sensory Tester cleared under K864345 and the Somedic Vibrameter cleared under K843486. Comparisons related to temperature and vibration are presented.

Table 5.1: Technological Characteristics Comparison Table

		<del>-</del>
Feature or Specifica-	Sensortek NTE-2 Thermal Tester (K864345)	Sensory Dynamic Neuroscreening Device (Proposed Device)
Minimum Temperature (deg C)	0	15
Maximum Temperature (deg C)	50	40
Control Accuracy (deg C)	0.1	0.5
Temperature Gradient Steps (deg C)	5, 1, and 0.5	Fixed at 2

Feature or tion	Specifica-	Somedic Vibrameter (K843486)	Dynamic Neuroscreening Device (Proposed Device)
Vibration (Hz)	Frequency	100-120	175
Vibration Range (micros	•	0 to 40 and 0 to 400	4.5 to 23 .
Vibration Amplitude Set Point Resolution (Microns)		5%	20%

## 5.10 Non-Clinical Testing

Nonclinical testing consisted of vibrational and temperature verification in addition to electrical safety testing.

### 5.11 Biocompatibilty

Due to the materials of construction, biocompatibilty testing was not performed.

### 5.12 Clinical Testing

No clinical testing was performed in association with this submission.

### 5.13 Conclusions

The results of the comparison of design, materials, intended use and technological characteristics demonstrate that the device is as safe and effective as the legally marketed predicate devices.