August 21, 2026

Brixton Biosciences
% Dave McGurl
VP, Regulatory Affairs - Orthopedics
MCRA, LLC
803 7th Street NW, 3rd Floor
Washington, District of Columbia 20001

Re: DEN250067
Trade/Device Name: ReneuRx™ (Neural Ice)
Regulation Number: 21 CFR 888.3048
Regulation Name: Injectable for thermal treatment of musculoskeletal pain
Regulatory Class: Class II
Product Code: SJA
Dated: December 15, 2025
Received: December 15, 2025

Dear Dave McGurl:

The Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration (FDA) has completed its review of your De Novo request for classification of the ReneuRx™ (Neural Ice), a prescription device under 21 CFR Part 801.109 with the following indications for use:

> ReneuRx™ (Neural Ice) is intended for pain management by inhibiting nerve signaling through the introduction of a multiphase suspension into the extraneural space of the target sensory nerve. The device is indicated for the management of knee pain in adults with symptomatic osteoarthritis (OA).

FDA concludes that this device should be classified into Class II. This order, therefore, classifies the ReneuRx™ (Neural Ice), and substantially equivalent devices of this generic type, into Class II under the generic name injectable for thermal treatment of musculoskeletal pain.

FDA identifies this generic type of device as:

> **Injectable for thermal treatment of musculoskeletal pain**. An injectable for thermal treatment of musculoskeletal pain is an injectable device intended to inhibit sensory nerve signaling through exchange of thermal energy (e.g., cold temperatures). The device is injected into the extraneural space of the target nerve.

Section 513(f)(2) of the Food, Drug and Cosmetic Act (the FD&C Act) was amended by section 607 of the Food and Drug Administration Safety and Innovation Act (FDASIA) on July 9, 2012. This law provides two options for De Novo classification. First, any person who receives a "not substantially equivalent" (NSE) determination in response to a 510(k) for a device that has not been previously classified under the Act may request FDA to make a risk-based classification of the device under section 513(a)(1) of the Act. On December 13, 2016, the 21st Century Cures Act removed a requirement that a De Novo request be submitted within 30 days of receiving an NSE determination. Alternatively, any person who determines that there is no legally marketed device upon which to base a determination of substantial equivalence may request FDA to make a risk-based classification of the device under section 513(a)(1) of the Act without first submitting a 510(k). FDA shall, within 120 days of receiving such a request, classify the device. This classification shall be the initial classification of the device. Within 30 days after the issuance of an order classifying the device, FDA must publish a notice in the Federal Register announcing the classification.

On December 15, 2025, FDA received your De Novo requesting classification of the ReneuRx™ (Neural Ice). The request was submitted under section 513(f)(2) of the FD&C Act. In order to classify the ReneuRx™ (Neural Ice) into class I or II, it is necessary that the proposed class have sufficient regulatory controls to provide reasonable assurance of the safety and effectiveness of the device for its intended use. After review of the information submitted in the De Novo request, FDA has determined that, for the previously stated indications for use, the ReneuRx™ (Neural Ice) can be classified in class II with the establishment of special controls for class II. FDA believes that class II (special) controls provide reasonable assurance of the safety and effectiveness of the device type. The identified risks and mitigation measures associated with the device type are summarized in the following table:

Risks to Health	**Mitigation Measures**
Tissue injury resulting from: • User error/improper device use • Device migration • Thermal spread	Clinical performance testing Animal performance testing Non-clinical performance testing Labeling
Pain	Clinical performance testing Labeling
Neurological (sensory/motor) deterioration	Clinical performance testing Labeling
Adverse tissue reaction	Animal performance testing Biocompatibility evaluation
Infection	Sterilization validation Shelf life testing and packaging validation Pyrogenicity testing Labeling

In combination with the general controls of the FD&C Act, the injectable for thermal treatment of musculoskeletal pain is subject to the following special controls:

(1) Clinical performance testing must demonstrate that the device performs as intended under anticipated conditions for use and include the following:
   (i) Evaluation of clinically relevant endpoints, such as reduction in pain, in comparison to a clinically justified comparator; and
   (ii) Evaluation of relevant adverse events, including pain, injury at injection site or tissues exposed to locations of thermal spread, any unanticipated adverse device effects, and subsequent surgical interventions.

(2) Animal performance testing must demonstrate that the device performs as intended under anticipated conditions of use. Animal testing must include:
   (i) Assessment of device performance, including nerve degeneration and subsequent healing response at the injection site; and
   (ii) Adverse effects as assessed by gross necropsy and histopathology.

(3) Non-clinical performance testing must demonstrate that the device performs as intended under anticipated conditions for use and include the following:
   (i) Performance testing must characterize the dimensions of the treatment area, flowability and spread, and temperature range; and
   (ii) Simulated use testing, including device preparation and compatibility with accessories.

(4) The patient-contacting components of the device must be demonstrated to be biocompatible.

(5) Performance data must support the sterility and pyrogenicity of the device components intended to be sterile.

(6) Performance data must support the shelf life of the device by demonstrating continued sterility, package integrity, and device functionality over the identified shelf life.

(7) Labeling must include the following:
   (i) A shelf life;
   (ii) Identification of material composition;
   (iii) A detailed summary of the clinical data pertinent to use of the device, including population studied, effectiveness outcomes and observed adverse events;
   (iv) Information regarding any limitations of the clinical data; and
   (v) Specific instructions regarding target nerve location and device placement.

In addition, this is a prescription device and must comply with 21 CFR 801.109.

Although this letter refers to your product as a device, please be aware that some granted products may instead be combination products. If you have questions on whether your product is a combination product, contact CDRHProductJurisdiction@fda.hhs.gov.

Section 510(m) of the FD&C Act provides that FDA may exempt a class II device from the premarket notification requirements under section 510(k) of the FD&C Act, if FDA determines that premarket notification is not necessary to provide reasonable assurance of the safety and effectiveness of the device type. FDA has determined premarket notification is necessary to provide reasonable assurance of the safety

and effectiveness of the device type and, therefore, the device is not exempt from the premarket notification requirements of the FD&C Act. Thus, persons who intend to market this device type must submit a premarket notification containing information on the injectable for thermal treatment of musculoskeletal pain they intend to market prior to marketing the device.

Please be advised that FDA's decision to grant this De Novo request does not mean that FDA has made a determination that your device complies with other requirements of the FD&C Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the FD&C 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 Management System Regulation (QMSR) (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 FD&C Act; 21 CFR 1000-1050).

All medical devices, including Class I and unclassified devices and combination product device constituent parts are required to be in compliance with the final Unique Device Identification System Rule ("UDI Rule"). The UDI Rule requires, among other things, that a device bear a unique device identifier (UDI) on its label and package (21 CFR 801.20(a)) unless an exception or alternative applies (21 CFR 801.20(b)) and that the dates on the device label be formatted in accordance with 21 CFR 801.18. The UDI Rule (21 CFR 830.300(a) and 830.320(b)) also requires that certain information be submitted to the Global Unique Device Identification Database (GUDID) (21 CFR Part 830 Subpart E). For additional information on these requirements, please see the UDI System webpage at https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/unique-device-identification-system-udi-system.

A notice announcing this classification order will be published in the Federal Register. A copy of this order and supporting documentation are on file in the Dockets Management Branch (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Room 1061, Rockville, MD 20852 and are available for inspection between 9 a.m. and 4 p.m., Monday through Friday.

As a result of this order, you may immediately market your device as described in the De Novo request, subject to the general control provisions of the FD&C Act and the special controls identified in this order.

For comprehensive regulatory information about medical devices and radiation-emitting products, 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).

If you have any questions concerning the contents of the letter, please contact Yang Li, Ph.D. at yang.li@fda.hhs.gov.

Sincerely,

Laurence D. Coyne -S Digitally signed by Laurence D. Coyne -S

Laurence D. Coyne, Ph.D.
Director
DHT6C: Division of Restorative,
Repair and Trauma Devices
OHT6: Office of Orthopedic Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health