August 8, 2023

Boston Scientific Corporation
Jim Johnson
Sr. Regulatory Specialist
4100 Hamline Avenue North
St. Paul, Minnesota 55112-5798

Re: P220032
Trade/Device Name: Boston Scientific Cardiac Cryoablation System (POLARx™ Short Tip (ST) Cryoablation Balloon Catheter, POLARx™ Long Tip (LT) Cryoablation Balloon Catheter, POLARx FIT™ Short Tip (ST) Cryoablation Balloon Catheter, POLARx FIT™ Long Tip (LT) Cryoablation Balloon Catheter, SMARTFREEZE™ Cryo-Console, SMARTFREEZE™ Remote Control, SMARTFREEZE™ Cryo-Console Foot Switch, SMARTFREEZE™ Inter-Connection Box, SMARTFREEZE™ Diaphragm Movement Sensor, SMARTFREEZE™ Cryo-Cable, SMARTFREEZE™ Catheter Extension Cable)
Product Code: OAE
Filed: December 20, 2022
Amended: May 05, 2023

Dear Mr. Jim Johnson:

The Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration (FDA) has completed its review of your premarket approval application (PMA) for the Boston Scientific Cardiac Cryoablation System (POLARx™ Short Tip (ST) Cryoablation Balloon Catheter, POLARx™ Long Tip (LT) Cryoablation Balloon Catheter, POLARx FIT™ Short Tip (ST) Cryoablation Balloon Catheter, POLARx FIT™ Long Tip (LT) Cryoablation Balloon Catheter, SMARTFREEZE™ Cryo-Console, SMARTFREEZE™ Remote Control, SMARTFREEZE™ Cryo-Console Foot Switch, SMARTFREEZE™ Inter-Connection Box, SMARTFREEZE™ Diaphragm Movement Sensor, SMARTFREEZE™ Cryo-Cable, SMARTFREEZE™ Catheter Extension Cable). This device is indicated for:

POLARx Cryoablation Balloon Catheters
The Boston Scientific Cardiac Cryoablation System using the POLARx Cryoablation Balloon Catheters is indicated for the treatment of patients with drug refractory, recurrent symptomatic paroxysmal atrial fibrillation (PAF).

POLARx Cryo-Console
The Boston Scientific Cardiac Cryoablation System is intended for cryoablation and electrical mapping of the pulmonary veins for pulmonary vein isolation (PVI) in the ablation treatment of patients with drug refractory recurrent symptomatic paroxysmal atrial fibrillation (PAF). The SMARTFREEZE Console is intended to be used with POLARx Cryoablation Balloon Catheters only.

We are pleased to inform you that the PMA is approved. You may begin commercial distribution of the device in accordance with the conditions of approval described below. Although this letter refers to your product as a device, please be aware that some approved products may instead be combination products. The Premarket Approval Database located at https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMA/pma.cfm identifies combination product submissions.

The sale and distribution of this device are restricted to prescription use in accordance with 21 CFR 801.109 and under section 515(d)(1)(B)(ii) of the Federal Food, Drug, and Cosmetic Act (the act). FDA has determined that these restrictions on sale and distribution are necessary to provide reasonable assurance of the safety and effectiveness of the device. Your device is therefore a restricted device subject to the requirements in sections 502(q) and (r) of the act, in addition to the many other FDA requirements governing the manufacture, distribution, and marketing of devices.

Expiration dating for this device has been established and approved at 12 months for the SMARTFREEZE Cryo-Cable and 24 months for the POLARx Cryoablation Balloon Catheters and SMARTFREEZE Cryo-Catheter Extension Cable. This is to advise you that the protocol you used to establish this expiration dating is considered an approved protocol for the purpose of extending the expiration dating as provided by 21 CFR 814.39(a)(7).

Continued approval of the PMA is contingent upon the submission of periodic reports, required under 21 CFR 814.84, at intervals of one year (unless otherwise specified) from the date of approval of the original PMA. This report, identified as "Annual Report" and bearing the applicable PMA reference number, should be submitted to the address below. The Annual Report should indicate the beginning and ending date of the period covered by the report and should include the information required by 21 CFR 814.84.

In addition to the above, and in order to provide continued reasonable assurance of the safety and effectiveness of the PMA device, the Annual Report must include, separately for each model number (if applicable), the number of devices sold and distributed during the reporting period, including those distributed to distributors. The distribution data will serve as a denominator and provide necessary context for FDA to ascertain the frequency and prevalence of adverse events, as FDA evaluates the continued safety and effectiveness of the device.

You must obtain approval of your post-approval study (PAS) protocol(s) within 60 days from the date of this order. Within 30 days of your receipt of this letter, you must submit a PMA supplement that includes a complete protocol of your post-approval study described below. Your PMA supplement should be clearly labeled as a "PMA Post-Approval Study Protocol" as noted below and submitted to the address below. Please reference the PMA number above to facilitate processing. If there are multiple protocols being finalized after PMA approval, please submit each protocol as a separate PMA supplement.

In addition to the Annual Report requirements, you must provide the following data in post-approval study (PAS) reports for each PAS listed below.

> The Boston Scientific Corporation (BSC) Cardiac Cryoablation System Post-Approval Study is a prospective, non-randomized, single-arm, multi-center study to confirm the safety and effectiveness of drug refractory recurrent symptomatic paroxysmal AF (PAF) ablation with the BSC Cardiac

Cryoablation System. Approximately 200 adult patients who intend to undergo their first atrial fibrillation ablation with the BSC Cardiac Cryoablation System to treat symptomatic PAF refractory or intolerant to at least one Class I or III antiarrhythmic medication will be enrolled and ablated using the BSC Cardiac Cryoablation System, with at least 50% of patients treated in the United States. The study will include a diverse (i.e., race, ethnicity, gender) patient population. At least 50 subjects participating in the trial will have a LUX-Dx Insertable Cardiac Monitor placed within 7 days of the ablation procedure. Follow up clinical data will be collected at pre-discharge, 3 months, 6 months, and 12 months post-procedure. Subjects with a LUX-Dx implanted prior to the ablation procedure will have arrythmia recurrence monitored remotely via the LATITUDE Home Monitoring System to assess for arrhythmia recurrence for a minimum of 3 years.

The primary objectives of the PAS will be the following:

1. The primary safety endpoint will be evaluated by the safety event free rate at 12 months post-index procedure using the BSC Cardiac Cryoablation System.

2. The primary effectiveness endpoint will be evaluated by the failure-free rate at 12 months post-index procedure using the BSC Cardiac Cryoablation System.

The secondary objectives of the PAS will include the following:

1. Failure-free rate at 12 months post-index procedure for those subjects with the LUX-Dx using the Primary Effectiveness Endpoint definition with detectable AF identified by the LUX-Dx containing at least 120 seconds of continuous interpretable signal.

2. Detectable AF with the LUX-Dx containing at least 120 seconds of continuous interpretable signal through the lifetime of the LUX-Dx up to 36 months.

You are required to submit a progress report every six months for this PAS during the first two years, and annually thereafter. You are also required to report any early mortality (through 3 months post-procedure) to the FDA within 10 days after you first receive notice of the event.

In addition, the results from any surveillance should be included in the labeling as these data become available. Any updated labeling must be submitted to FDA in the form of a PMA Supplement.

Each PAS report should be submitted to the address below identified as a "PMA Post-Approval Study Report" in accordance with how the study is identified above and bearing the applicable PMA reference number.

Be advised that failure to comply with any post-approval requirement constitutes grounds for FDA withdrawal of approval of the PMA in accordance with 21 CFR 814.82(c) and 814.46(a)(2).

Be advised that the failure to conduct any such study in compliance with the good clinical laboratory practices in 21 CFR part 58 (if a non-clinical study subject to part 58) or the institutional review board regulations in 21 CFR part 56 and the informed consent regulations in 21 CFR part 50 (if a clinical study

involving human subjects) may be grounds for FDA withdrawal of approval of the PMA in accordance with 21 CFR 814.46(a)(3)-(4).

Be advised that protocol information, interim and final results will be published on the Post-Approval Studies Program Database Webpage https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMA/pma_pas.cfm.

In addition, the results from any post approval study should be included in the labeling as these data become available. Any updated labeling must be submitted to FDA in the form of a PMA Supplement. For more information on post-approval studies, see the FDA guidance document entitled, "Procedures for Handling Post-Approval Studies Imposed by Premarket Approval Application Order" (https://www.fda.gov/media/71327/download).

This is a reminder that as of September 24, 2014, class III devices are subject to certain provisions of the final Unique Device Identification (UDI) rule. These provisions include the requirement to provide a UDI on the device label and packages (21 CFR 801.20), format dates on the device label in accordance with 21 CFR 801.18, and submit data to the Global Unique Device Identification Database (GUDID) (21 CFR 830 Subpart E). Additionally, 21 CFR 814.84 (b)(4) requires PMA annual reports submitted after September 24, 2014, to identify each device identifier currently in use for the subject device, and the device identifiers for devices that have been discontinued since the previous periodic report. It is not necessary to identify any device identifier discontinued prior to December 23, 2013. Combination Products may also be subject to UDI requirements (see 21 CFR 801.30). For more information on these requirements, please see the UDI website, https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/unique-device-identification-udi-system.

Before making any change affecting the safety or effectiveness of the PMA device, you must submit a PMA supplement or an alternate submission (30-day notice) in accordance with 21 CFR 814.39. All PMA supplements and alternate submissions (30-day notice) must comply with the applicable requirements in 21 CFR 814.39. For more information, please refer to the FDA guidance document entitled, "Modifications to Devices Subject to Premarket Approval (PMA) - The PMA Supplement Decision-Making Process" https://www.fda.gov/media/81431/download.

You are reminded that many FDA requirements govern the manufacture, distribution, and marketing of devices. For example, in accordance with the Medical Device Reporting (MDR) regulation, 21 CFR 803.50 and 21 CFR 803.52 for devices or post-marketing safety reporting (21 CFR 4, Subpart B) for combination products, you are required to report adverse events for this device. Manufacturers of medical devices, including in vitro diagnostic devices, are required to report to FDA no later than 30 calendar days after the day they receive or otherwise becomes aware of information, from any source, that reasonably suggests that one of their marketed devices:

1. May have caused or contributed to a death or serious injury; or

2. Has malfunctioned and such device or similar device marketed by the manufacturer would be likely to cause or contribute to a death or serious injury if the malfunction were to recur.

Additional information on MDR, including how, when, and where to report, is available at https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems and on combination product post-marketing safety reporting is available at (see https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products).

In accordance with the recall requirements specified in 21 CFR 806.10 for devices or the post-marketing safety reporting requirements (21 CFR 4, Subpart B) for combination products, you are required to submit a written report to FDA of any correction or removal of this device initiated by you to: (1) reduce a risk to health posed by the device; or (2) remedy a violation of the act caused by the device which may present a risk to health, with certain exceptions specified in 21 CFR 806.10(a)(2). Additional information on recalls is available at https://www.fda.gov/safety/recalls-market-withdrawals-safety-alerts/industry-guidance-recalls.

CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading. CDRH will notify the public of its decision to approve your PMA by making available, among other information, a summary of the safety and effectiveness data upon which the approval is based. The information can be found on the FDA CDRH Internet Home Page located at https://www.fda.gov/medical-devices/device-approvals-denials-and-clearances/pma-approvals. Written requests for this information can also be made to the Food and Drug Administration, Dockets Management Branch, (HFA-305), 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852. The written request should include the PMA number or docket number. Within 30 days from the date that this information is placed on the Internet, any interested person may seek review of this decision by submitting a petition for review under section 515(g) of the act and requesting either a hearing or review by an independent advisory committee. FDA may, for good cause, extend this 30-day filing period.

Failure to comply with any post-approval requirement constitutes a ground for withdrawal of approval of a PMA. The introduction or delivery for introduction into interstate commerce of a device that is not in compliance with its conditions of approval is a violation of law.

You are reminded that, as soon as possible and before commercial distribution of your device, you must submit an amendment to this PMA submission with a copy of all final labeling. Final labeling that is identical to the labeling approved in draft form will not routinely be reviewed by FDA staff when accompanied by a cover letter stating that the final labeling is identical to the labeling approved in draft form. If the final labeling is not identical, any changes from the final draft labeling should be highlighted and explained in the amendment.

All required documents should be submitted, unless otherwise specified, to the address below and should reference the above PMA number to facilitate processing.

U.S. Food and Drug Administration
Center for Devices and Radiological Health
Document Control Center - WO66-G609
10903 New Hampshire Avenue
Silver Spring, MD 20993-0002

If you have any questions concerning this approval order, please contact Meaghan Erlewein at Meaghan.Erlewein@fda.hhs.gov.

Sincerely,

Hetal B. Odobasic -S

Hetal Odobasic
Director (Acting)
Division of Cardiac Electrophysiology,
Diagnostics and Monitoring Devices
Office of Cardiovascular Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health