**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

August 25, 2017

Lutonix, Inc.
Mr. John Carline
Sr. Director of Regulatory Affairs
9409 Science Center Drive
New Hope, MN 55428

Re: P170003
Trade/Device Name: Lutonix® 035 Drug Coated Balloon PTA Catheter, Model 9010
Filed: January 23, 2017
Amended: March 8, 2017; April 7, 2017; May 26, 2017
Product Code: PRC

Dear Mr. Carline:

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 Lutonix® 035 Drug Coated Balloon PTA Catheter, Model 9010. The LUTONIX® 035 Drug Coated Balloon PTA Catheter is indicated for percutaneous transluminal angioplasty (PTA), after pre-dilatation, for the treatment of stenotic lesions in dysfunctional native arteriovenous dialysis fistulae that are 4 mm to 12 mm in diameter and up to 80 mm in length. 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.

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). The device is further restricted under section 515(d)(1)(B)(ii) of the act insofar as the labeling must specify the specific training or experience practitioners need in order to use the device. 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 36 months for the 4-7 mm diameter devices and 24 months for the 8-12 mm diameter devices.

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. Two copies of 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. This is a reminder that as of September 24, 2014, class III devices are subject to certain provisions of the final 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. For more information on these requirements, please see the UDI website, http://www.fda.gov/udi.

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.

In addition to the Annual Report requirements, you must provide the following data in post-approval study (PAS) reports for each PAS listed below. Separate PAS Progress Reports must be submitted for each study every six (6) months during the first two (2) years of the study and annually thereafter, unless otherwise specified by FDA. Two (2) copies of each report, identified as an "ODE Lead PMA Post-Approval Study Report" or "OSB Lead PMA Post-Approval Study Report" in accordance with how the study is identified below and bearing the applicable PMA reference number, should be submitted to the address below.

1. *ODE Lead PMA Post-Approval Study* – IDE Cohort Post Approval Study: The Office of Device Evaluation (ODE) will have the lead for this clinical study, which was initiated prior to device approval. This study will evaluate the long-term safety and effectiveness of the Lutonix 035AV Drug Coated Balloon Catheter (Lutonix 035 DCB) in the remaining 265 subjects from the premarket study. The premarket study was designed as a global, multicenter, single blind, randomized (1:1 Lutonix 035 DCB to PTA) trial. Subjects will be followed every 6 months through 24 months post-procedure.

   The primary effectiveness endpoint is target lesion primary patency (TLPP) through 24 months. The primary safety endpoint is freedom from any serious adverse event(s) involving the AV access circuit through 24 months.

   Additional endpoints to be assessed through 24 months post-procedure are: (1) access circuit primary patency (ACPP), (2) device, procedural, and clinical success, (3) abandonment of permanent access in the index extremity, (4) number of interventions required to maintain access circuit patency, (5) number of interventions required to maintain target lesion patency, and (6) rate of device and procedure related adverse events.

2. *OSB Lead PMA Post-Approval Study* – New Enrollment Post Approval Study Registry: The Office of Surveillance and Biometrics (OSB) will have the lead for studies initiated after device approval. This study will be conducted to assess the safety and effectiveness of the Lutonix DCB for treatment of dysfunctional native arteriovenous (AV) fistulae located in the arm in a heterogeneous patient population in real-world clinical practice.

   This will be a prospective, single-arm, global multicenter, registry study of patients presenting with clinical and hemodynamic abnormalities in native AV fistulae located in the arm. Patients will be followed for 2 years and assessment will be performed at 6, 12, 18, and 24 months after the index procedure by either clinical visit or telephone. Follow-up requirements including tests (e.g. angiography, Duplex Ultrasound) and examinations (AV assessment) will be conducted per standard of care.

   A sample size of 213 newly treated subjects will be enrolled from 15 to 30 US and international sites. Approximately 50% of subject enrollment and number of sites will be from the U.S.

   The primary effectiveness endpoint is Target Lesion Primary Patency (TLPP) through 6 months compared to a performance goal (PG) of 61.4%. The primary safety endpoint is freedom from any serious adverse event(s) involving the AV access circuit through 30 days compared to a PG of 89%.

   The secondary effectiveness endpoints include device, procedural and clinical success; TLPP assessed at 12, 18, and 24 months, and number of reinterventions to maintain target lesion patency, Access Circuit Primary Patency (ACPP), number of reinterventions to maintain access circuit patency, and abandonment of permanent access in the index extremity assessed at 6, 12, 18, and 24 months. The secondary safety endpoints include freedom from any serious adverse event(s) involving the AV access circuit and rate of device and procedure related adverse events assessed at 6, 12, 18, and 24 months. The secondary endpoints will be summarized with descriptive statistics and confidence intervals.

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.

Be advised that protocol information, interim and final results will be published on the Post Approval Study Webpage http://www.fda.gov/devicepostapproval.

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 PMA Order" (http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm070974.htm).

Within 30 days of your receipt of this letter, you must submit a PMA supplement that includes a complete protocol of your OSB Lead post-approval study described above. Your PMA supplement should be clearly labeled as an "ODE Lead PMA Post-Approval Study Protocol" or "OSB Lead PMA Post-Approval Study Protocol" as noted above and submitted in triplicate 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.

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" http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm089274.htm.

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, 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 http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm.

In accordance with the recall requirements specified in 21 CFR 806.10, 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 http://www.fda.gov/Safety/Recalls/IndustryGuidance/default.htm.

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 HomePage located at

http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DeviceApprovalsandClearances/PMAApprovals/default.htm. 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 copies 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 in 6 copies, 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
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10903 New Hampshire Avenue
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If you have any questions concerning this approval order, please contact Eleni Whatley at 301-796-6372 or Eleni.Whatley@fda.hhs.gov.

Sincerely,

Kenneth J. Cavanaugh -S

for

Bram D. Zuckerman, M.D.
Director
Division of Cardiovascular Devices
Office of Device Evaluation
Center for Devices and Radiological Health