September 24, 2015

Kaneka Corporation
% Christopher M. Sloan
Principal Consultant
Quintiles Consulting
1801 Rockville Pike, Suite 300
Rockville, MD 20852

Re: K152080
Trade/Device Name: Metacross OTW PTA Balloon Dilatation Catheter
Regulation Number: 21 CFR 870.1250
Regulation Name: Percutaneous Catheter
Regulatory Class: Class II
Product Code: LIT
Dated: July 24, 2015
Received: July 27, 2015

Dear Mr. Sloan:

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

Sincerely yours,

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

Enclosure
Indications for Use

Device Name
Metacross OTW PTA Balloon Dilatation Catheter

Indications for Use (Describe)
The Metacross OTW PTA Balloon Dilatation Catheter is intended to dilate stenosis in the iliac, femoral, ilio-femoral, popliteal, infrapopliteal and renal arteries, and for the treatment of obstructive lesions of native or synthetic arteriovenous dialysis fistulae. This device is also indicated for stent post-dilatation in the peripheral vasculature.

Type of Use (Select one or both, as applicable)

- Prescription Use (Part 21 CFR 801 Subpart D)
- Over-The-Counter Use (21 CFR 801 Subpart C)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

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

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510(K) SUMMARY

Metacross OTW PTA Balloon Dilatation Catheter

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Date Prepared: July 24, 2015
Subject Device Name:

Trade Name Metacross OTW PTA Balloon Dilatation Catheter
Common or usual name Percutaneous (peripheral) transluminal angioplasty catheter
Classification name Percutaneous catheter [21 CFR 870.1250; Product code LIT
Class II
Classification Panel Cardiovascular (74)

Predicate Device:

• EverCross™ .035" OTW PTA Dilatation Catheter or “EverCross” [K082579 (ev3, Inc.])

Reference Device:

• Metacross RX PTA Balloon Dilatation Catheter [K150865 (Kaneka Corporation)]

Device Description:

Metacross OTW PTA Balloon Dilatation Catheter (Metacross OTW) is an over the wire type of balloon dilation catheter, which consists of a distal tube, center tube, proximal tube, balloon, guidewire transition tube, radiopaque markers, manifold, and strain relief. A balloon is attached to the distal end of the catheter, and it can be inflated and deflated using the inflation device connected to the manifold at the proximal end. Metacross OTW has a guidewire lumen at the distal end of the catheter through which a guidewire can be inserted, and also an opening along the guidewire transition tube, center tube and proximal tube to the guidewire port of the manifold for the introduction of a guidewire.

The maximum compatible diameter of a guidewire used together with Metacross OTW in a PTA procedure is 0.035 inches; hence, sheathless guiding catheters and sheaths with a diameter of 5, 6 or 7 Fr have been deemed to be compatible with Metacross OTW. The nominal inflated balloon diameters range from 3.0 mm to 12.0 mm with balloon working lengths of 20 mm to 200 mm. Three different catheter working lengths will be provided: 650, 900 and 1350 mm.
**Indications for Use**

The Metacross OTW PTA Balloon Dilatation Catheter is intended to dilate stenosis in the iliac, femoral, ilio-femoral, popliteal, infra-popliteal and renal arteries, and for the treatment of obstructive lesions of native or synthetic arteriovenous dialysis fistulae. This device is also indicated for stent post-dilatation in the peripheral vasculature.

**Comparison of Indications for Use to Predicate Device**

The Metacross OTW has the same intended use (percutaneous transluminal angioplasty) as the EverCross. The indications for use of the Metacross OTW is identical to that of the EverCross. Therefore, the subject device, Metacross OTW, may be considered substantially equivalent to the predicate device.

**Comparison of Technological Characteristics to Predicate Device**

**Technological Comparison to Predicate Device**

The Metacross OTW has the following similarities to the predicate EverCross device:

- Same intended use
- Same indications for use
- Same target population
- Same operating principle
- Similar materials
- Same fundamental scientific technology
- Same sterility assurance level and method of sterilization

**Performance Testing**

To demonstrate substantial equivalence of Metacross OTW to the predicate device, the technological characteristics and performance criteria were evaluated using the bench testing recommendations outlined in the FDA Guidance Document “Class II Special Controls Guidance Document for Certain Percutaneous Transluminal Coronary Angioplasty (PTCA) Catheters” dated September 8, 2010. The following *in vitro* tests were performed on the subject device:
Dimensional Verification, Balloon Preparation, Deployment and Retraction, Balloon Rated Burst Pressure, Balloon Fatigue (Repeat Balloon Inflations), Balloon Compliance, Balloon Inflation and Deflation Time, Catheter Bond Strength, Flexibility and Kink Test, Torque Strength, Radiopacity, Particulate Evaluation, Balloon Rated Burst Pressure (in Stent), and Balloon Fatigue (Repeat Balloon Inflations; in Stent), and Shelf Life Testing.

The results from these tests demonstrate that the technological characteristics and performance criteria of the Metacross OTW are adequate for the intended use of the device and that the device can perform in a manner equivalent to devices currently on the market with the same intended use.

**Biocompatibility:**

To demonstrate the biological safety of the body-contacting materials and substantial equivalence of the Metacross OTW to the predicate device, the following biocompatibility testing was leveraged from the Metacross RX reference device in accordance with “Draft Guidance for Industry and Food and Drug Administration Staff; Use of International Standard ISO 10993, ‘Biological Evaluation of Medical Devices Part 1: Evaluation and Testing’” (dated April 23, 2013):

- Cytotoxicity, Sensitization, Intracutaneous reactivity (irritation), Systemic toxicity (acute), Pyrogenicity, Hemocompatibility (thrombogenicity, hemolysis, and immunology), and Genotoxicity (bacterial gene mutation assay, in vitro mammalian genotoxicity assay, and in vivo cytogenetics assay)

The results from these tests demonstrate that the Metacross OTW is biocompatible for its intended use similar to the predicate device.

**Conclusions:**

The Metacross OTW met all the predetermined acceptance criteria of design verification and validation as specified by applicable standards, guidance, test protocols and/or customer inputs. The Metacross OTW PTA Balloon Dilatation Catheter is substantially equivalent to legally marketed predicate device.