

FOR IMMEDIATE RELEASE

Johns Hopkins Medicine, Maryland Stem Cell Research Fund and BioCardia Announce First Patient Treated with CardiAMP Cell Therapy for Ischemic Heart Failure in Phase III Clinical Trial

SAN CARLOS, Calif. and BALTIMORE – February 28, 2017 – Johns Hopkins Medicine, the Maryland Stem Cell Research Fund (MSCRF) and [BioCardia, Inc.](#) (OTC:BCDA) today announced that the first patient has been treated in the pivotal Phase III CardiAMP® clinical trial of a cell-based therapy for the treatment of ischemic heart failure that develops after a heart attack. The first patient was treated at Johns Hopkins Hospital by a team led by Peter Johnston, MD, a faculty member in the Department of Medicine and Division of Cardiology, and principal investigator of the trial at Johns Hopkins.

The investigational [CardiAMP therapy](#) is designed to deliver a high dose of a patient's own bone marrow cells directly to the point of cardiac dysfunction, potentially stimulating the body's natural healing mechanism after a heart attack.

The patient experience with CardiAMP therapy begins with a pre-procedural cell potency screening test. If a patient qualifies for therapy, they are scheduled for a bone marrow aspiration. A point of care cell processing platform is then utilized to concentrate the autologous bone marrow cells, which are subsequently delivered in a minimally-invasive procedure directly to the damaged regions in a patient's heart.

"This cell-based therapy offers great potential for heart failure patients," said Carl Pepine, MD, professor and former chief of cardiovascular medicine at the University of Florida, Gainesville and national co-principal investigator of the CardiAMP trial. "We look forward to validating the impact of the therapy on patients' quality of life and functional capacity in this important study."

In addition to Dr. Johnston, the CardiAMP research team at Johns Hopkins includes Gary Gerstenblith, MD, Jeffrey Brinker, MD, Ivan Borrello, MD, Judi Willhide, Katherine Laws, Audrey Dudek, Michele Fisher and John Texter, as well as the nurses and technicians of the Johns Hopkins Cardiovascular Interventional Laboratory.

"Funding the clinical trial of this cell therapy, which could be the first cardiac cell therapy approved in the United States, is an important step towards treatments," said Dan Gincel, PhD., executive director of the MSCRF at TEDCO. "Through our clinical program, we are advancing cures and improving healthcare in the State of Maryland."

The CardiAMP Heart Failure Trial is a phase III, multi-center, randomized, double-blinded, sham-controlled study of up to 260 patients at up to 40 centers nationwide, which includes an optional 10-patient roll-in cohort. The primary endpoint for the trial is a significant improvement in Six Minute Walk distance at 12 months' post-treatment. Study subjects must be diagnosed with New York Heart Association (NYHA) Class II or III heart failure as a result of a previous heart attack. The national co-principal investigators are Dr. Pepine and Amish Raval, MD, of the University of Wisconsin.

For information about eligibility or enrollment in the trial, please visit www.clinicaltrials.gov or ask your cardiologist.

About BioCardia®

BioCardia, Inc., headquartered in San Carlos, CA, is developing regenerative biologic therapies to treat cardiovascular disease. CardiAMP® and CardiALLO® cell therapies are the company's biotherapeutic product candidates in clinical development. For more information, visit www.BioCardia.com.

About Johns Hopkins Medicine

Johns Hopkins Medicine (JHM), headquartered in Baltimore, Maryland, is one of the leading health care systems in the United States. Johns Hopkins Medicine unites physicians and scientists of the Johns Hopkins University School of Medicine with the organizations, health professionals and facilities of The Johns Hopkins Hospital and Health System. For more information, visit www.hopkinsmedicine.org.

About Maryland Stem Cell Research Fund

The Maryland Stem Cell Research Act of 2006 was established by the Governor and the Maryland General Assembly during the 2006 legislative session and created the Maryland Stem Cell Research Fund. This fund is continued through an appropriation in the Governor's annual budget. The purpose of the Fund is to promote state-funded stem cell research and cures through grants and loans to public and private entities in the State. For more information, visit www.MSCRF.org.

Forward Looking Statements

This press release contains forward-looking statements as that term is defined under the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include, among other things, references to the enrollment of our Phase 3 trial, commercialization and efficacy of our products and therapies, the product development timelines of our competitors. Actual results could differ from those projected in any forward-looking statements due to numerous factors. Such factors include, among others, the inherent uncertainties associated with developing new products or technologies, unexpected expenditures, the ability to raise the additional funding needed to continue to pursue BioCardia's business and product development plans, competition in the industry in which BioCardia operates and overall market

conditions, and whether the combined funds will support BioCardia's operations and enable BioCardia to advance its pivotal Phase 3 CardiAMP cell therapy program. These forward-looking statements are made as of the date of this press release, and BioCardia assumes no obligation to update the forward-looking statements.

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