

ARTERIOCYTE

For Immediate Release

NIH Fast Track Grant Awarded to Arterioocyte for Critical Limb Ischemia Research

Cleveland, OH, September 22, 2008 –

Arterioocyte, a clinical stage biotechnology company announced today the receipt of a fast track Phase I/II Small Business Innovation Research Grant Award (R44HL092706-01) from National Heart, Lung, and Blood Institute (NHLBI), of the National Institutes of Health (NIH). The grant award, is the first installment of the combined \$2.5 million grant from the NIH to clinically evaluate the therapeutic feasibility of treating Critical Limb Ischemia with the company's expanded human umbilical cord blood derived stem cell therapy (ALO212) using Arterioocyte's proprietary NANEX cell expansion technology. The company's NANEX technology provides for a rapid ex-vivo culturing of hemangioblasts, an early progenitor cell shown to have potential in improving perfusion in ischemic tissues. The NIH award represents an important step in the company's commercialization of ALO212, its second stem cell pipeline product candidate, transitioning to clinical stage evaluation. The balance of the funding from the NHLBI is expected to be awarded, contingent on successful completion of the Phase I work.

The NANEX technology, developed by Dr. Hai-Quan Mao's research team at Johns Hopkins University, involves electrospun nanofibers that create a synthetic bone marrow "niche" environment, allowing stem cells to rapidly proliferate while maintaining their undifferentiated "stem" property. Arterioocyte is developing the NANEX platform technology for potential therapeutic use in a number of chronic and acute care settings including treatments for Critical Limb Ischemia, Compartment Syndrome, and "Blood Pharming" - the rapid expansion of cells for the commercial manufacture of universal donor blood.

Arterioocyte's research collaborators in the development of this technology include Dr. Christopher Cooper, (The University of Toledo), Drs. Vincent Pompili and Hiranmoy Das (The Ohio State University), Dr. Hai Quan Mao (The Whiting School of Engineering at Johns Hopkins University), and Dr. Amit Patel (University of Utah School of Medicine).

About Arterioocyte

Arterioocyte, a clinical stage Biotechnology Company with facilities in Cleveland, Ohio and Hopkinton, Massachusetts, is developing proprietary stem cell therapies for human clinical applications. Arterioocyte's goal is to develop commercially available stem cell based therapies using multiple sources of adult derived stem cells (marrow, peripheral cord blood, and cartilage). In October of 2007, Arterioocyte partnered with DW Healthcare Partners and Comerica to create Arterioocyte Medical Systems Inc., in order to commercialize and distribute novel medical devices and point of care surgical solutions to improve patient outcomes. Arterioocyte Medical Systems has a strategic partnership with Medtronic that includes Medtronic's cardiac surgery division distributing Arterioocyte Medical System's Magellan™ Autologous platelet and stem cell separation device in the Cardiac Surgery market. The Magellan system is currently in use in over 400 surgical centers worldwide.

Contact Information

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