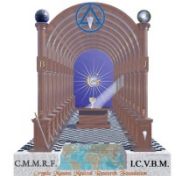




Indiana University
School of Medicine

Indiana Center for Vascular Biology and Medicine Newsletter Spring 2015 Vessels and Vitality



Cryptic Masons Medical
Research Foundation

A team of physicians and researchers from [The Indiana Center for Vascular Biology and Medicine](#), Indiana University Health, and the IU School of Medicine have completed follow-up on the first participant in a first-of-its-kind, FDA-approved study examining the regenerative powers of the adult stem cells found in body fat.

Funded in part by the U.S. Department of Defense and Cryptic Masons Medical Research Foundation, Inc., this study will test the use of adult stem cells in 20 patients who have poor blood circulation in their lower legs and have been told their only treatment option is amputation. Led by ICVBM researcher Dr. Keith March, M.D., Ph.D, the team will determine if these cells can restore leg function and help these individuals avoid losing their limbs.

The study's first procedure in the USA was performed by IU Health cardiologist [Dr. Ziad Jaradat](#) and plastic surgeon [Dr. Ivan Hadad](#) at IU Health University Hospital using a machine that extracts adult stem cells from a person's own fat at the bedside in less than 90 minutes.

The procedure sequence is as follows:



Obtain abdominal fat by liposuction



Load fat into device that processes into cells



Prepare stem cells for delivery



Deliver cells to leg

The cells from fat are like powerful repair stations lining the highways of the body, the blood vessels. They are helpful in building new blood supply and rescuing damaged tissues.

This approach was conceived more than twelve years ago at [The Indiana Center for Vascular Biology and Medicine](#). Under Dr. March's leadership, a team of investigators at IU Health conducted pre-clinical studies that demonstrated how adult stem cells from body fat, or adipose tissue, could be used to restore circulation in the body's lower limbs. Now, the team has partnered with Honolulu-based medical device maker Tissue Genesis Incorporated, and is moving forward to test the effectiveness of this novel therapy in humans.