



Contact: David L. Ringler  
Corporate Communications  
925-935-5710  
[dringler@theregeninc.com](mailto:dringler@theregeninc.com)

## **THEREGEN LAUNCHES SECOND PHASE ONE STUDY OF ANGINERA CELL-BASED PATCH IN HEART PATIENTS**

**SAN FRANCISCO, Calif. – (July 24, 2007)** -- Theregen, Inc. today announced a second Phase I trial to examine the role of its Anginera™ cell-based cardiovascular heart patch on adult patients suffering from heart disease.

Surgeons from the University of Pennsylvania and University of Maryland have successfully placed study patches, including Anginera, on the surface (epicardium) of diseased hearts of patients suffering from Stage D Heart Failure (HF). Each patient also received an implanted left ventricular assist device (LVAD) while waiting for a donated heart at some future date. When the study patients later receive a transplanted heart, their removed, diseased heart will be analyzed to determine the effect of Anginera on heart tissue. The Anginera patch contains human fibroblast cells that secrete multiple biochemical factors essential to forming blood vessels and aiding in tissue repair.

“The histological analysis of the cardiac tissue derived from the study patients’ explanted hearts will help elucidate the mechanism of action of Anginera in diseased hearts,” said Theregen President Michael Siani-Rose. Theregen’s Chief Executive Officer Paul Quadros noted, “These findings will also accelerate our ability to plan future development of Anginera as a potential treatment for Heart Failure.”

A Phase I safety study of Anginera as an adjunct therapy in patients undergoing coronary artery bypass graft (CABG) surgery was initiated by Theregen in May 2006. This study is in an advanced stage of patient enrollment at three clinical trial sites. In preclinical studies Anginera induced blood vessel formation (angiogenesis) in small and large animal heart models.

In this second study, following LVAD implantation, two areas of the diseased heart’s left ventricle are randomly assigned one of two treatments: a.) viable Anginera; and b.) non-viable Anginera. A third study area serves as a non-treated control. When the diseased heart is removed during the transplantation procedure, biopsies of the three cardiac tissue study areas will be obtained. The researchers will then determine each treatment’s effects on such indicators as: fibrosis, inflammation, markers of heart failure, cell proliferation, stem cell recruitment, and angiogenesis and arteriogenesis.

In addition to the University of Pennsylvania and University of Maryland, clinical trial sites include the University of Michigan, University of Minnesota, Rush University, and Yale University.

Theregen, Inc. ([www.theregeninc.com](http://www.theregeninc.com)) develops cell-based therapies for patients with cardiac and peripheral vascular disease. Theregen's primary corporate objective is the clinical development and approval of Anginera™, its lead product candidate. Theregen is located in San Francisco, Calif.