

Pauly, Daniel Frank

*Department of Medicine, Cardiovascular Medicine
University of Florida College of Medicine*

2004 Program

*Small Business Technology
Transfer (1-year project)*

Project Title: Longevity and Differentiation of Myoblasts in Patients Awaiting Transplant

Project Summary: Congestive heart failure is the most common cause for hospitalization among the elderly and is a leading cause of cardiovascular morbidity and mortality among smokers. The incidence of congestive heart failure has continued to rise over the past decade. This increase has occurred even though treatments for heart attack have improved. Patients who survive their initial heart attack, often experience weakened heart muscles and are more likely to develop congestive heart failure. Treatment for congestive heart failure includes an increasing array of medications designed to decrease the work that the heart does. Interest in methods to regenerate new muscle cells now exists. Rather than simply making it easier for a patient to survive with a weak heart, experiments are underway to try to repopulate the heart with cells that can regenerate the heart's squeezing power. This project will conduct studies on patients with severe heart failure who are awaiting heart transplant to assess viability of new techniques to repopulate a weak heart with muscle cells from the patient's thigh muscle and to determine whether they will take on characteristics of true heart muscle cells.