

# Biomedical Engineering Wallace H. Coulter Foundation Seminar Series

#### FLORIDA INTERNATIONAL UNIVERSITY

## Drugs or Stem Cells for Recovery of Heart Function Following Ischemia

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Pharmacology & Cell Biophysics
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FRIDAY, January 13, 2012 LECTURE: 1:00 PM - 2:00 PM

ENGINEERING CENTER ROOM EC 1115 10555 WEST FLAGLER STREET MIAMI, FL 33174



### **Abstract:**

Loss of pump function by heart muscle during and subsequent to cessation of blood flow through one or more major coronary arteries severely compromises cardiovascular oxygen and nutrients for life support. Drug therapies, and recently cell-based therapies seek to prevent or minimize heart tissue injury and cell therapies are designed to regenerate or replace injured tissue; both therapies directed toward restoration of the pump function fo the heart, especially the left ventricular chamber. In this lecture the biomechanical effects coronary artery obstruction, the efficacy of certain drug treatments in reducing heart muscle injury after coronary artery obstruction, and results from recently reported stem cell research on restoring heart tissue and overall global left ventricular function will be discussed. Opportunities exist for FIU student to participate in this research as undergraduate during summer months and as full-time graduate students after graduation from FIU.

### **Biography**

<u>Current Position:</u> Professor and Director of Graduate Studies, Pharmacology & Cell Biophysics, University of Cincinnati; Co-Director of NSF IGERT Program, Director of ASPET SURF Program.

<u>Research and Education Programs Sponsors:</u> National institutes of Health (NIH, NHLBI), National Science Foundation (NSF, DGE), American Society for Pharmacology and Experimental Therapeutics (ASPET)

<u>Publications:</u> 115 original articles; 4 invited editorials, 10 book chapters; 150 scientific meeting presentations, etc.

<u>Honors:</u> Fellow, American Heat Association, Council on Basic Cardiovascular Science; Fellow, American Council on Education; Senior Fulbright Fellow, etc.

<u>Faculty Positions:</u> Aarhus University (Denmark), Harvard University Medical School, Brown University, University of Cincinnati

Postdoctoral Training: University of Washington, Seattle (Bioengineering & Physiology), Scripps

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Map: http://campusmaps.fiu.edu/ (Other campuses/ - Engineering Center)