

# THE SCOPE

News and innovations in medicine

THE UNIVERSITY OF FLORIDA DEPARTMENT OF MEDICINE ■ SUMMER 2012



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## NEW REVOLUTIONARY PROCEDURE



Interventional cardiologists Drs. R. David Anderson and Anthony A. Bavry

### Transcatheter Aortic Valve Replacement (TAVR): An Alternative For Aortic Stenosis Patients

Recently, the U.S. Food and Drug Administration approved the use of the Edwards SAPIEN Transcatheter Heart Valve for patients with symptomatic severe aortic stenosis who are not candidates for an open valve replacement surgery. The

percutaneous minimally invasive valve procedure.

In the new TAVR procedure, the artificial valve – framed by a stent and wrapped around a balloon – is transported up to the aortic valve via a catheter in the leg. The

...the artificial valve – framed by a stent and wrapped around a balloon – is transported up to the aortic valve via a large catheter in the leg.

pivotal clinical trial was published in NEJM 2010;363(17):1597-1607.

We are delighted to announce that the UF&Shands cardiovascular team, which includes interventional cardiologists and cardiothoracic surgeons, are collaborating to provide patients with this advanced heart care modality, also known as a

new valve is then anchored into position inside the diseased valve by inflation of a balloon. Placement of the stent is monitored with X-ray and ultrasound imaging. Our hybrid imaging and surgery suite is well-equipped to handle this revolutionary procedure. ■

WE WELCOME IMMEDIATE REFERRALS. PLEASE CALL (352) 265-0820



Dr. Robert Hromas  
Chairman, Department of Medicine

#### A MESSAGE

### From The Chairman

I am honored to be chairman of the University of Florida Department of Medicine. The department has a long-standing tradition of excellence in compassionate patient care, innovative research, and distinguished education, founded on the twin principles of caring and investigation. These principles not only define who we are collectively, but also drive our work. With every patient and in every situation, we continually strive to discover better methods of achieving our ultimate goal, which is to systematically relieve human suffering. This is our promise to the community and the state. I invite you to keep up with “what’s hot” in our department and look forward to working with you as we build on our past successes and advance health care regionally and nationally. ■



NEW PROCEDURE



Dr. Michael A. Jantz  
Associate Professor  
Division of Pulmonary,  
Critical Care & Sleep Medicine

## Bronchial Thermoplasty for Patients with Severe Persistent Asthma

Dr. Michael A. Jantz, an associate professor of medicine and director of interventional pulmonology, now offers adult patients a minimally invasive non-drug bronchoscopic procedure for severe persistent asthma that is not well controlled with inhaled corticosteroids and long-acting beta-agonists.

The Alair® Bronchial Thermoplasty System (the “Alair® System”) delivers thermal energy to the airway wall in a precisely controlled manner in order to

reduce excessive airway smooth muscle. This decreases the ability of the airways to constrict, thereby reducing the frequency of asthma attacks.

Bronchial thermoplasty is performed under moderate sedation or light anesthesia in three outpatient procedure visits scheduled approximately three weeks apart. Each visit treats a different area of the lungs and the patient typically goes home the same day.

Bronchial thermoplasty is

expected to complement asthma maintenance medications by providing long-lasting asthma control and improving asthma-related quality of life of patients with severe asthma. In addition, bronchial thermoplasty has been demonstrated to reduce severe exacerbations (asthma attacks), emergency rooms visits for respiratory symptoms, and time lost from work, school and other daily activities due to asthma. ■

TO MAKE AN APPOINTMENT OR TO REFER A PATIENT, PLEASE CALL (352) 273-8737



PUBLICATIONS



Dr. Kenneth Cusi  
Professor and Chief  
Division of Endocrinology,  
Diabetes & Metabolism

## An Endocrine Perspective on Nonalcoholic Fatty Liver Disease (NAFLD)

Dr. Kenneth Cusi, a professor of medicine and chief of endocrinology, diabetes and metabolism, has recently published several papers on the importance of NAFLD and its clinical implications. NAFLD, currently the most common chronic liver condition in adults, is present in the majority of obese patients that endocrinologists see on a daily basis. This condition is characterized by insulin resistance, hepatic steatosis and, frequently, type 2 diabetes mellitus (T2DM). It may lead to serious medical consequences ranging from cryptogenic cirrhosis to hepatocellular

carcinoma as well as T2DM and cardiovascular disease.

The diagnosis of NAFLD is challenging. Liver aminotransferases may be helpful if elevated, but if normal the clinician must still suspect the presence of the disease based on the patient’s metabolic profile. Liver ultrasound may assist in the diagnosis (MRI and spectroscopy are still research tools) but a definitive diagnosis of NASH often requires ruling out other liver conditions and eventually a liver biopsy. Noninvasive approaches combining the clinical profile (obesity, T2DM, hypertension, dyslipidemia) and

novel biomarkers will change the management of the disease in the near future.

Treatment of NAFLD includes lifestyle intervention and aggressive management of cardiovascular risk factors. Pioglitazone (NEJM 355:2297) or vitamin E are currently the best pharmacological options for patients with nonalcoholic steatohepatitis, although long-term studies are needed.

Endocrinologists will likely be more often consulted and involved in the management of patients with NAFLD in the future. ■

FOR MORE INFORMATION, PLEASE VISIT [HTTP://ENDOCRINOLOGY.MEDICINE.UFL.EDU](http://endocrinology.medicine.ufl.edu)



RESEARCH GRANT



UF scientists in many different specialties are part of the Cardiovascular Cell Therapy Research Network (Elizabeth Afzal, biological scientist and Amy Meacham, senior biological scientist).

## \$63 Million NIH Grant Helps UF Continue Exploration of Cell Regeneration Therapies for Heart Disease

University of Florida researchers in the Division of Cardiovascular Medicine and colleagues at six other institutions have received a \$63 million, seven-year grant from the NIH National Heart, Lung and Blood Institute to develop heart disease therapies that use a patient’s own bone marrow cells to generate new healthy heart cells and restore function.

“The work has the potential to change the paradigm from the management of patients with heart disease, which right now is aimed at prevention and slowing progression,” said UF principal investigator Dr. Carl J. Pepine, professor and eminent scholar emeritus of cardiovascular medicine. “This has the ability to move treatment into the regenerative medicine field.”

The award, of which UF’s portion totals more than \$5 million, allows the researchers

to build on findings from rigorous randomized clinical trials funded by an earlier five-year grant to the network. The researchers previously found that in patients who had heart failure and/or chest pain, but were not eligible for standard surgical treatment to

ultimately capable of becoming new heart cells. The research will also extend to new categories of patients, including those who have a condition called peripheral vascular disease, in which narrowed arteries limit blood flow to the limbs. The effectiveness of stem

**With the funding, researchers will work to identify new kinds of stem cells that can be used for therapy.**

improve blood flow, delivering stem cells from the patient’s own bone marrow resulted in a small but notable improvement in the heart’s ability to pump blood.

With the funding, researchers will work to identify new kinds of stem cells that can be used for therapy. They will explore patients’ bone marrow and myocardium to find cells

cell therapy will also be evaluated in patients with heart failure or weak hearts and who have implanted mechanical pumps called left ventricular assist devices that help restore cardiac output.

The UF center is actively enrolling patients in one of the NHLBI-sponsored Cardiovascular Cell Therapy Research Network trials. ■

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