

MUSC was one of the first five centers in the world to use a 64-slice CT machine for cardiac imaging and continues to remain a leader in this field. Faculty members of [the Department of Medicine, Division of Cardiology](#), have exceptional expertise in the treatment of atrial fibrillation, including the use of ablation, pacemakers, and defibrillators.

Department of Medicine, Division of Cardiology

The Division of Cardiology has a robust basic research program focused on cardiac growth regulation in the adult heart, specifically the maladaptive growth that causes heart failure. The Division's [Basic Research Program](#) receives \$2.4 million per year from the NIH, \$800,000 from the Department of Veterans Affairs, and additional funding from the American Heart Association as well as other sponsors.

Center of Economic Excellence

Recently, a \$10 million grant was received from the State of South Carolina, with Michael R. Zile, M.D. as Principal Investigator. This grant is designed to establish a [Center of Economic Excellence](#) for the early detection of congestive heart failure. Two cardiology faculty members hold positions supported in part by Endowed Chairs: Michael R. Gold, M.D., Ph.D. and Michael R. Zile, M.D.

South Carolina COBRE for Cardiovascular Development Biology

The Center for Biomedical Research Excellence (COBRE) is a special P20 mechanism introduced by the National Center for Research Resources in 2000 to develop emerging excellence in thematic research areas. [The South Carolina COBRE for Cardiovascular Development Biology](#) was competitively renewed in 2006 for five additional years with a specific goal of establishing a self-sustaining Cardiovascular Developmental Biology Center (CDBC).

Clinical Trials Network

In addition to basic research, the Division of Cardiology supports a successful clinical research program with close to 40 ongoing trials in the areas of cardiac arrhythmias, congestive heart failure, coronary intervention, and cardiac transplantation.

Featured Researchers

[Dr. Michael Gold](#) is Chief of Cardiology and Medical Director of the Heart and Vascular Center. Dr. Gold's special interests include electrophysiology, adult cardiology and arrhythmias. He is a pioneer in the development of new defibrillation techniques and pacing for congestive heart failure.

[Dr. Frank Spinale](#) is Professor of Surgery within the Division of Cardiothoracic Surgery. Dr. Spinale's research interest is in the cellular and molecular mechanisms for the progression of both acute and chronic heart failure as well as the development of therapeutic modalities for this disease process.

[Dr. Michael Zile](#) is currently the Charles Ezra Daniel Professor and serves as the Director of the Medical Intensive Care Unit at the Ralph H. Johnson Department of Veteran's Affairs Medical Center in Charleston. Dr. Zile is a recognized leader in the areas of cardiac function, congestive heart failure, diastolic heart failure, and valvular heart disease.

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