

For Immediate Release

Contact: Tonya Ewers, 303.315.6374, pager 303.266.0941, tonya.ewers@ucdenver.edu

School of Medicine Cardiology Physician and Researcher Receives Lifetime Achievement Award from the Heart Failure Society of America



AURORA, Colo. (Sept. 22, 2008) – Michael Bristow, MD, PhD, professor of Medicine and co-director of the Colorado Cardiovascular Institute at the University of Colorado Denver School of Medicine has been named the 2008 recipient of the Lifetime Achievement Award by the Heart Failure Society of America. The award recognizes a lifetime body of work by an individual who has made a significant and sustained contribution to the field of heart failure. Bristow received his award today at the Annual Scientific Meeting of the HFSA in Toronto.

The award was established in 2006 to enable the HFSA to pay tribute to a renowned clinician and/or researcher whose work is advancing the field of heart failure. Bristow is the third recipient in the award's history.

As the author of more than 350 peer-reviewed papers and chapters on heart failure, cardiomyopathy and other cardiovascular diseases, Bristow is responsible for key breakthroughs in heart disease treatment, including the introduction of beta-blockers and the discovery of key molecular mechanisms underlying heart failure.

"I am profoundly grateful to the highly respected scientific and clinical care professional society, HFSA, for this award," said Bristow. "It represents work done by our group and talented collaborators over a 30-year span focused on one goal—the discovery of the mechanisms that account for weakened function and abnormal growth of the failing human heart."

In 2006, Bristow published breakthrough research detailing the discovery of a common genetic variation that could help determine whether a person with heart failure would benefit from beta-blockers, a class of drugs used to treat chronic heart failure. It often takes several months to determine if a specific beta-blocker is working for a patient; one in five patients with heart failure die within a year of diagnosis. This discovery led the way in the development of genetic medicine and personalized care in cardiac patients, saving valuable time in treating individuals.

In 2005, while conducting the beta-blocker research, Bristow founded ARCA Discovery, Inc.—more recently ARCA biopharma, Inc.—a biopharmaceutical company which develops genetically-targeted therapies for heart failure and other cardiovascular diseases. ARCA began operations in 2005 and is headquartered in Broomfield, Colo. Its lead product is bucindolol, the beta blocker Bristow researched in patients with the genetic variation. ARCA is currently developing bucindolol for the treatment of heart failure and has recently submitted an application to the FDA for approval. Currently, Bristow is chairman and chief science and medical officer for the company.

Bristow also was the principal founder, the former chief science and medical officer and a former director of Myogen, Inc., a company specializing in the research and development of cardiovascular therapeutics based on molecular changes and signaling pathways discovered by Bristow and his Myogen co-founder colleagues in diseased heart and vascular cells. Myogen's lead product, ambrisentan (Letairis), is now approved and marketed for the treatment of pulmonary arterial hypertension. In 2006, Myogen was acquired by Gilead Sciences, Inc.

“I am especially gratified that the Society recognizes the importance of translating discovery into actual treatments that help patients; to do this my colleagues and I had to get involved in the development and commercialization side of therapeutics,” said Bristow. “The treatments we have developed have had a major impact on the very serious medical problem of heart failure, but we need to continue this effort until we achieve the goal of completely preventing or reversing this major public health problem.”

Most recently, in February 2008, Bristow won the Pharmaceutical Research and Manufacturers of America (PhRMA) Discoverers Award - Clinical Trial Exceptional Services Award for discoveries made in the early 1980s and for his clinical trial expertise in developing another beta-blocker, carvedilol (Coreg), as the first member of the beta-blocker class to be approved for the treatment of heart failure. Bristow’s work with carvedilol and an additional drug (metoprolol) which followed, have had a major impact in reducing deaths and morbidity from heart failure. The development of these drugs was based on Bristow’s early career research finding that the failing human heart was subjected to harmful amounts of increased adrenergic activity, and that the likely response to that activity was beta blockade—a discovery that was to shape his career and ultimately lead to his research with genetics and beta-blocking personalized medicine.

“Dr. Bristow’s recognition that altered beta adrenergic signaling was a characteristic feature of the failing human heart led to a true paradigm shift in our approach to heart failure therapy—one that has radically improved the natural history of this very common clinical condition,” said Peter Buttrick, MD, division head of Cardiology at the UC Denver School Medicine. “This award recognizes a lifetime of work and is very much deserved.”

Bristow received his MD and his PhD in Pharmacology from the University of Illinois, Chicago. Over his career at Stanford University, the University of Utah and the

University of Colorado Denver, his fundamental discoveries have been supported by grants from the National Institutes of Health totaling more than \$15 million in research funding. These discoveries have in turn generated more than 20 submitted or awarded patents, which have constituted the intellectual property that is the basis for his biotechnology start-up companies that have been founded in partnership with the University of Colorado.

The University of Colorado Denver [School of Medicine](#) faculty work to advance science and improve care as the physicians, educators and scientists at University of Colorado Hospital, The Children's Hospital, Denver Health, National Jewish Health, and the Denver Veterans Affairs Medical Center. Degrees offered by the UC Denver School of Medicine include doctor of medicine, doctor of physical therapy, and masters of physician assistant studies. The School is part of the [University of Colorado Denver](#), one of three universities in the University of Colorado system. For additional news and information, please visit the [UC Denver newsroom](#) online.

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About Heart Failure

Heart failure affects nearly 5 million Americans, according to the Heart Failure Society of America. Less than 50 percent of patients live past five years after their initial diagnosis and less than 25 percent are alive at 10 years. The risks of heart failure include high blood pressure, a prior heart attack, abnormal heart valves and diabetes. In addition, a large number of patients have a form of heart failure called idiopathic cardiomyopathy, where no predisposing factor can be identified.

Heart failure develops when the heart is not able to pump enough blood to meet the body's needs. The heart compensates for this loss in pumping capacity by growing larger, increasing muscle mass and pumping faster to increase the heart's output. These changes typically occur over a long period of time, masking the problem. Eventually, the heart and the body cannot keep up with the demands, and the person begins to experience the fatigue and breathing problems that often are the first signs of the disease.

About HFSA

The Heart Failure Society of America, Inc. (HFSA) represents the first organized effort by heart failure experts from the Americas to provide a forum for all those interested in heart function, heart failure, and congestive heart failure (CHF) research and patient care. The Mission of HFSA is to promote research related to all aspects of heart failure and to provide a forum for presentation of basic, clinical, and population-based research; educate health care professionals to enable them to diagnose and treat heart failure and concomitant medical conditions more effectively; to serve as a resource for government, private industry, and health care providers to facilitate the establishment of programs and policies that will better serve the patient; enhance quality and duration of life in those with heart failure; and promote and facilitate the formal training of physicians, scientists, and allied health care providers in the field of heart failure. For more information, visit www.hfsa.org.

***Please note my new email address: tonya.ewers@ucdenver.edu**

Tonya Ewers-Maikish, Senior News Media Specialist
Office of Integrated University Communications
University of Colorado Denver;
University of Colorado Hospital
Work Phone: 303.315.6374
Cell: 303.548.5178
Personal Pager: 303.266.0941
24-hour Media on-call pager: 303.266.2608
Media Relations Fax: 303.724.1521

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