
Raymond Benza, Named Chief of Pulmonary Hypertension for the Mount Sinai Health System



Awarded \$4 million in NIH grants to study new therapies for improved survival

Raymond Benza, MD, FACC, FAHA, FACP, a top expert in cardiovascular medicine and advanced heart failure and transplantation, has been named Director of Pulmonary Hypertension for the Mount Sinai Health System. In this newly created position, Dr. Benza will advance and standardize care for patients with pulmonary hypertension within hospitals across the Health System and further develop clinical research in this area of medicine.

“Pulmonary hypertension, once considered a rare condition, is now an epidemic, and it’s critical to address diagnosis among patients and make strides in therapies that will increase life expectancy for those with symptoms,” says Dr. Benza, a Professor of Medicine (Cardiology) at the Icahn School of Medicine at Mount Sinai. “In my new role, my goal is to identify more patients with this condition, which often goes undiagnosed, by bringing in detailed evaluation and treatment paradigms across the Health System and the New York metro area while helping to develop new treatment options.”

Pulmonary hypertension, or high blood pressure in the lungs, affects one in ten people worldwide. It makes the heart work harder than normal to pump blood into the lungs, causing symptoms including shortness of breath, chest pain, and lightheadedness. Patients often ignore these symptoms, and the condition is not diagnosed until it progresses and causes heart failure.

There are five forms of pulmonary hypertension. One of the most deadly is pulmonary arterial hypertension (PAH), which mostly affects women between 30 and 60 years old. PAH happens when arteries in the lung become thickened and narrowed, impeding blood flow through the lungs. PAH is a rapidly progressive fatal disease with few therapies available. More common forms are those related to heart failure, chronic obstructive pulmonary disease, interstitial lung disease, sleep apnea, and pulmonary emboli (blood clots in the lungs).

Dr. Benza, who was previously Director of the Division of Cardiovascular Medicine at Ohio State University, recently received \$4 million in grants from the National Heart, Lung and Blood Institute, part of the National Institutes of Health (NIH), for two studies. One of those studies involves a new portable extracorporeal membrane oxygenation (ECMO) catheter for patients with severe PAH and right ventricular failure. This catheter, inserted in the veins of the upper body, provides circulatory and respiratory support. Unlike standard ECMO support, which requires a patient to be in bed and hooked up to a machine while they wait for a heart transplant, this device can be carried in a backpack, so patients don’t need to stay in bed and have a better chance to rehabilitate. By offloading the stress in the lung, it can allow the lung to heal naturally and give it more time to respond to continued medical therapy. This could avoid the need for a heart transplant and improve patients’ survival. Dr. Benza is a co-founder and Chief Medical Officer of an early-stage start-up company, PHope, that will be developing the ECMO catheter for commercial use.

The second study involving PAH will focus on ways to better predict outcomes such as death and hospitalizations in patients suffering from this disease. This could significantly advance treatments by permitting tailored, targeted, and effective first-line therapies. Dr. Benza’s work will help develop and validate a decision support tool for predicting survival in adult and pediatric PAH, which will provide physicians and patients with the tools to choose specific therapies based on individual risks and patient choices to improve their survival and quality of life, a form of personalized medicine.

“We are extremely fortunate to recruit Dr. Benza, a highly accomplished physician and scientist who is a world expert in pulmonary hypertension and heart failure,” stated Deepak L. Bhatt, MD, MPH, Director of the Mount Sinai Fuster Heart Hospital and the Dr. Valentin Fuster Professor of Cardiovascular Medicine at Icahn Mount Sinai. “His groundbreaking research in the field of pulmonary hypertension encompasses clinical trials, laboratory science, and medical device innovation.”

"We are delighted with the recruitment of Dr. Benza to lead Mount Sinai's programs in pulmonary hypertension. We are enthusiastic about the clinical advances we will make through synergies with the Mount Sinai – National Jewish Health Respiratory Institute," said Charles A. Powell, MD, MBA Chief of Pulmonary, Critical Care and Sleep Medicine for the Mount Sinai Health System, Florette and Ernst Rosenfeld and Joseph Solomon Professor of Medicine at Icahn Mount Sinai, and Chief Executive Officer of the Mount Sinai – National Jewish Health Respiratory Institute. "We will also achieve research advances in this field through collaborations with Mount Sinai's advanced imaging, artificial intelligence, and lung biology research programs."

Dr. Benza is a fellow of the American College of Physicians, the American Heart Association Council on Clinical Cardiology, the American College of Chest Physicians, and the American College of Cardiology. Dr. Benza currently holds administrative positions in the Pulmonary Vascular Research Institute and the International Society of Heart and Lung Transplantation and is the former treasurer of that society. He served on President Barack Obama's Advisory Committee on Organ Transplantation in the Health Resources and Services Administration for four years. Dr. Benza was also named Physician of the Year in 2012 by the Pulmonary Hypertension Association and was recently inducted into the Association of University of Academic Cardiologists for his research achievements in the field. He sits on multiple journal editorial committees and is the Steering Committee Chair for several industry trials in PAH.

Mount Sinai Fuster Heart Hospital is one of the world's top four hospitals in Cardiology/Heart Surgery

Mount Sinai Fuster Heart Hospital ranks No. 1 in New York and No. 4 globally according to *Newsweek's* "The World's Best Specialized Hospitals." The Mount Sinai Hospital is also No. 1 in New York for cardiology, cardiac surgery, and vascular surgery and No. 4 in the United States, according to *U.S. News & World Report*.

It is part of Mount Sinai Health System, which is New York City's largest academic medical system, encompassing eight hospitals, a leading medical school, and a vast network of ambulatory practices throughout the greater New York region. We advance medicine and health through unrivaled education and translational research and discovery to deliver care that is the safest, highest-quality, most accessible and equitable, and the best value of any health system in the nation. The Health System includes approximately 7,400 primary and specialty care physicians; 13 joint-venture outpatient surgery centers throughout the five boroughs of New York City, Westchester, Long Island, and Florida; and more than 30 affiliated community health centers. Hospitals within the System are consistently ranked by *Newsweek's* "The World's Best Smart Hospitals" and by *U.S. News & World Report's* "Best Hospitals" and "Best Children's Hospitals." The Mount Sinai Hospital is on the *U.S. News & World Reports* "Best Hospitals" Honor Roll for 2023-2024.

Source: [Mount Sinai Health](#)

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