

Accelerating Science—Advancing Medicine

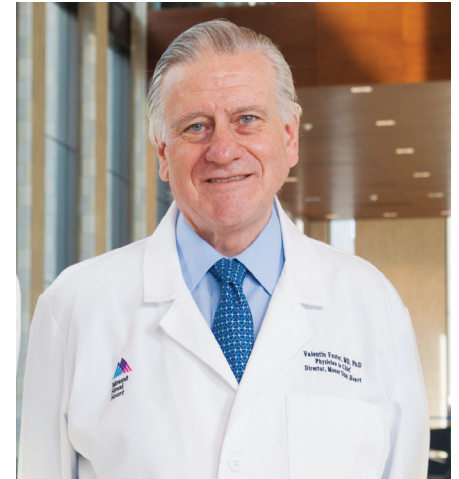
It's a new year with a bigger future outlook for Mount Sinai Heart, as well as the newly expanded and integrated cardiovascular services of the new Mount Sinai Health System, which are growing stronger than ever before.

Mount Sinai Heart's cardiovascular services now span across the East and West sides of Manhattan, and Brooklyn at: The Mount Sinai Hospital, Mount Sinai Beth Israel, Mount Sinai St. Luke's, Mount Sinai Roosevelt, and Mount Sinai Beth Israel Brooklyn.

Our fleet of 166 cardiologists, 74 cardiology fellows in training, 107 nurse practitioners, and 1,037 nurses now cares for nearly 104,000 patients' hearts annually—doubling Mount Sinai's patient care, research, and education capabilities. Recent leading expert

recruits are: Blase Carabello, MD, Chair of Cardiology at Mount Sinai Beth Israel, and John Puskas, MD, Chair of Cardiovascular Surgery at Mount Sinai Beth Israel.

While Mount Sinai Heart grows, our mission remains the same: to improve the heart health of patients locally and globally, with dedication to the prevention, management, and eradication of cardiovascular diseases. We offer excellent and innovative patient care, conduct pioneering research and clinical trials, and train future leading cardiologists.



Valentin Fuster, MD, PhD, Physician-in-Chief of The Mount Sinai Hospital, and Director of Mount Sinai Heart, the Zena and Michael A. Wiener Cardiovascular Institute, and the Marie-Josée and Henry R. Kravis Center for Cardiovascular Health

Promoting Children's Cardiovascular Health

Mount Sinai Heart was awarded an American Heart Association (AHA) \$3.8 million grant for promoting cardiovascular health among children ages 3-5 and their caregivers within the high-risk communities of New York City (NYC).

"Our four-year project aims to reduce the epidemic of childhood obesity and better understand how the intersection of a child's behavior, environment, and genetics may lead to heart disease, while refining our future prevention techniques," says Principal Investigator Valentin Fuster, MD, PhD, Director of Mount Sinai Heart.



In fall 2015, Dr. Valentin Fuster will launch a new early childhood heart health intervention program in select New York City preschools, in collaboration with the AHA, The Head Start Program, and Sesame Workshop.

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engage and improve the nutritional and lifestyle habits of children and their families. Also, the program will leverage insights gained from cardiac imaging and genetic testing.

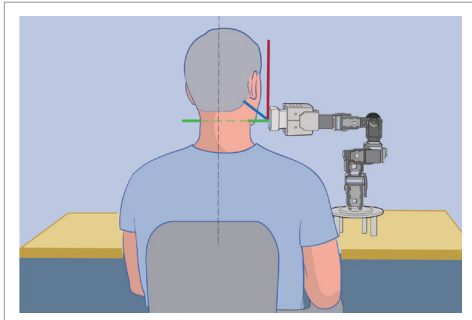
Mount Sinai's Sameer Bansilal, MD, MS, and Rajesh Vedanthan, MD, MPH, will measure the impact of the early childhood heart health education. "We hope that instilling such heart-healthy habits in children, along with their caregivers, will have the potential to change behavior and reduce obesity and cardiovascular disease for generations to come," says Dr. Bansilal.

The family-centric health education and health assessment project will enroll 600 children ages 3-5 in participating NYC preschools, along with 1,000 of their caregivers. Partly integrated into the program will be Sesame Workshop's "Healthy Habits for Life" educational bilingual initiative, featuring Muppet characters, to

Dr. Fuster's similar programs in Bogota, Colombia, and Spain have proven young children can maintain a healthy weight and learn long-lasting heart-healthy habits. The early childhood intervention program in NYC will begin in fall 2015.

The Robot May Examine You Now

Mount Sinai Heart is leading innovative research breakthroughs in remote long-distance, and even trans-Atlantic, robotic-assisted ultrasound imaging.



Mount Sinai Heart is investigating the benefits of telerobotic ultrasound.

While in Germany, Partho P. Sengupta, MD, Director of Cardiac Ultrasound Research at Mount Sinai, used a computer to perform the first robot-assisted trans-Atlantic ultrasound examination on a person in Boston. A small, lightweight robotic arm with built-in ultrasound technology was simply connected to a personal computer with a low-bandwidth Internet connection. The exam of a person's neck carotid artery took just four minutes.

“Our successful first-in-man experiment opens up a new frontier for the use of remote, robotic ultrasound imaging that could potentially be more efficient and cost-effective overall for health care delivery,” says Dr. Sengupta.

Mount Sinai recently tested the feasibility of telerobotic ultrasound in Sweden for heart failure patients at a remote primary care center located a far distance from the nearest Swedish hospital. “Our telerobotic ultrasound approach reduced the time to care and improved patient satisfaction substantially,” says Jagat Narula, MD, PhD, senior study investigator, and Mount Sinai's Director of Cardiovascular Imaging. “Our recent research breakthroughs give us a glimpse of what to expect in the near future, a patient-friendly imaging technology at your doorstep.”

Valentin Fuster, MD, PhD, Director of Mount Sinai Heart: “This imaging technology may be the key ‘helping hand’ we need to accelerate greater local and global health care access.”

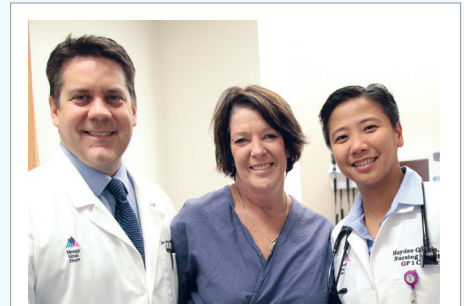
New Lauder Family Cardiovascular Ambulatory Center

The Mount Sinai Hospital opened its new 20,700-square-foot Lauder Family Cardiovascular Ambulatory Center with the generous support of Ronald S. Lauder and his family dedicated in honor of Valentin Fuster, MD, PhD, Director of Mount Sinai Heart.

“The center is home to a true team of heart and vascular doctors, and is the most advanced center in New York City and New York State,” says Dr. Fuster.

More than 40 cardiologists and vascular physicians, supported by 18 fellows, 60 nurses, and clinical and other support staff, offer comprehensive and integrated outpatient care in cardiovascular disease prevention, general cardiology, cardiology specialties, cardiac imaging, cardiac rehabilitation, heart failure and transplantation care, vascular medicine, and vascular surgery.

Plus, the center's 22 exam rooms and 5 vascular ultrasound rooms have an onsite anticoagulation clinic,



The Lauder Family Cardiovascular Ambulatory Center cares for 300 cardiac and vascular outpatients each day.

nutritionist, social worker, and four patient navigators. In 2015, the center will expand to offer a full spectrum of noninvasive cardiac imaging services.

“Our center will strive to markedly improve the cardiovascular health of each of our patients,” says Joseph Sweeny, MD, Medical Director. “Thanks to the vision of Dr. Fuster and the Lauder Family, we reached our goal of consolidating all cardiology and vascular outpatient services into one state-of-the-art facility.”

New Leadless Pacemaker Shows Promise

Pioneering electrophysiologist Vivek Reddy, MD, Director of Arrhythmia Services at the Mount Sinai Health System, is testing the latest advanced pacemaker device that may revolutionize the field of arrhythmia.

Dr. Reddy implanted the United States' first miniature-sized, leadless cardiac pacemaker called Nanostim made by St. Jude Medical at The Mount Sinai Hospital in 2014. The device fits directly inside and affixes to the heart minimally invasively through a catheter-guided procedure. The small tubular device is only a few centimeters in length. Study results so far show the wireless pacemaker device's overall performance is comparable



to traditional pacemakers.

“This new-age, tiny pacemaker for patients with a slowed heart rate called bradycardia may ultimately be safer for patients because

it doesn't have leads or have to be inserted surgically under the skin of a patient's chest,” says Dr. Reddy. “I believe this pioneering, compact device may be a true game-changing technology in cardiovascular medicine.”

As Steering Committee Chairman, Dr. Reddy is now testing the new device for safety and efficacy in an international, multicenter, clinical trial called LEADLESS II, enrolling 670 patients at 50 centers across the U.S. and Canada.