



**Mount
Sinai**

inside

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New Research Aims to Help People With Blood Cancers

A unique method of increasing the number of cord blood stem cells used to treat patients with blood cancers and blood disorders, such as sickle cell anemia, is being readied for clinical trials at the Icahn School of Medicine at Mount Sinai, with an \$8.8 million grant from the New York State Stem Cell Science Program (NYSTEM).

The stem cells—also known as hematopoietic stem cells—are derived from the vein of the umbilical cord and help renew and replenish blood cells. They represent the only potential therapy for blood cancer patients who do not respond to chemotherapy. The new method is necessary to compensate for the limited number of stem cells that are typically found in blood cord collections and the fact that using stem cells from two or more blood cord collections is generally not a viable option because the blood cells are not identical.

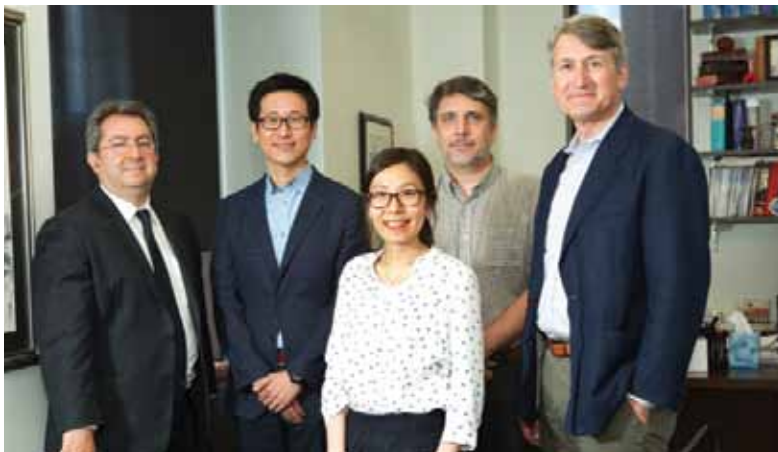
A research team led by Ronald Hoffman, MD, Albert A. and Vera G. List Professor of Medicine (Hematology and Medical Oncology), and Director of the Myeloproliferative Disorders Research Program,

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Ronald Hoffman, MD

Advances in Heart Failure Research and Clinical Care



Study investigators from the Cardiovascular Research Center and the Experimental Therapeutics Institute include, from left, Roger J. Hajjar, MD; Changwon Kho, PhD; Ahyoung Lee, PhD; Roberto Sanchez, PhD; and Robert J. DeVita, PhD.

Mount Sinai scientists and clinicians are making notable advances in the study and treatment of heart failure, a common condition that occurs when the heart becomes too weak to pump and circulate enough blood through the body. Diseases that damage the heart—such as coronary artery disease, high blood pressure, and diabetes—can lead to heart failure, which develops over time as the heart’s pumping action grows weaker. It impacts an estimated 5 million adults and children in this country.

In a recent study, investigators from the Icahn School of Medicine at Mount Sinai found that a powerful drug candidate, a small molecule known as N106, was able to improve the pumping ability of heart muscle cells that had been damaged by heart failure. The molecule was tested in human heart cells and animals, and the study’s

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➤ Advances in Heart Failure Research and Clinical Care *(continued from page 1)*

findings were published online on Friday, June 12, in *Nature Communications*. The study was a collaborative effort between Mount Sinai's Cardiovascular Research Center and the Experimental Therapeutics Institute.

"This first-in-class small molecule targets a known cellular pathway, improves heart failure cell abnormalities, and may provide an essential future treatment for these patients," says Roger J. Hajjar, MD, Director of the Cardiovascular Research Center, and the Arthur and Janet C. Ross Professor of Medicine, who led the study. "Our research team will drive the development of this new class of agents to enable the launch of the first clinical trials to test this promising medicine in heart failure patients."

Treatment with N106 appeared to increase heart muscle contraction, which resulted in the improved ability to pump blood. Specifically, N106 may counter heart failure by directly docking to and activating an enzyme, E1 ligase, which turns up the function of another, SERCA2a (Sarcoplasmic Reticulum Calcium ATPase). SERCA2a is a critical protein responsible for the proper flow of charged particles, such as calcium, in and out of heart muscle cells, which is needed to drive muscle contraction. Abnormal calcium cycling and decreased expression of SERCA2a in heart muscle cells is a major hallmark of heart



Patient Julie Bailey with Raymond Bietry, MD

failure, forcing the heart to work harder and grow larger, even as it weakens. This research builds upon Dr. Hajjar's previous work in targeting dysregulated calcium cycling proteins for the treatment of heart failure.

"Our new discovery of the promising compound N106 is a very exciting milestone for greater precision and targeted therapies for this debilitating condition," says Robert J. DeVita, PhD, Director of Medicinal Chemistry Core, Experimental Therapeutics Institute. "There is a critical need for novel targets and treatment strategies for heart failure."

A NEW WAY TO MONITOR HEART FAILURE PATIENTS

In mild cases, heart failure can be treated with lifestyle modification or daily medication. In severe cases, patients may need surgical intervention for survival: mechanical support, such as a left ventricular assist device, or a donor heart transplant. The cost of heart failure care is an estimated \$32 billion in the United States each year.

Among key symptoms for heart failure are shortness of breath and tiredness, the result of fluid build-up in the lungs,

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NEW DIRECTOR NAMED TO ENHANCE PROGRAMS IN HEART FAILURE, TRANSPLANTATION

Sean P. Pinney, MD, was recently named the first Director of Heart Failure and Transplantation for the Mount Sinai Health System. He will also continue to serve as Director of Advanced Heart Failure and Transplantation at The Mount Sinai Hospital and Associate Professor of Medicine (Cardiology) at Icahn School of Medicine at Mount Sinai, where he has led a number of clinical trials in heart failure, cardiac transplantation, and mechanical circulatory support.

In his new role, Dr. Pinney will help to expand, integrate, and coordinate



Sean P. Pinney, MD

inpatient and outpatient heart failure and heart transplantation patient care services across the Mount Sinai Health System.

A key responsibility will be instituting and overseeing the use of standardized evidence-based medical protocols and quality metrics, an effort aimed at reducing avoidable readmissions, enhancing the overall patient experience, and improving clinical outcomes.

Says Dr. Pinney, "As one of the largest health systems in New York and also the nation, this new role comes at a pivotal time given the growing regional and national epidemic of heart disease."

➤ Advances in Heart Failure Research and Clinical Care *(continued from page 2)*

ankles, feet, legs, and other areas of the body. Frequently, these conditions lead to hospitalization, which is what 54-year-old Julie Bailey faced in March, when fluid retention in her lungs left her unable to walk. Ms. Bailey, who was living with heart failure for 24 years, had been hospitalized twice in the last two years.

Raymond Bietry, MD, Assistant Professor of Medicine (Cardiology), Icahn School of Medicine at Mount Sinai, had a solution: in addition to diet changes and tobacco cessation, he recommended a new heart failure monitoring device that would help to detect symptoms earlier, a strategy aimed at reducing hospital admissions and improving quality of life.

Ms. Bailey recently became the first patient at Mount Sinai to receive the dime-sized CardioMEMS™ sensor, a device—which requires no batteries or leads—that is placed directly inside the heart during a minimally invasive procedure. The device monitors for increases in pulmonary artery pressures, early indicators of worsening heart failure. Patients transmit their daily pressure readings to their medical team, who have the ability to provide individualized and real-time care when there are abnormalities.

Ms. Bailey recalls that the first time she transmitted the data, a member of Dr. Bietry's staff called to inquire what she had eaten that day, suspecting that her answer would likely help explain the increased

“My doctors can monitor me wherever I am. I’m having a moment of success.”

– Julie Bailey, Patient

pressures they had noted. After revealing she had eaten a Greek salad with salty olives and cheese, she was reminded to select foods with less sodium.

Ms. Bailey is reassured by the greater level of communication and personalized care. “My doctors can monitor me wherever I am,” she says. “I’m having a moment of success.”

Noted Surgeon, Writer Delivers Lecture on “Being Mortal”

Before a capacity audience in Stern Auditorium that included faculty, staff, students, and the public, Atul Gawande, MD, MPH, noted surgeon, writer, and public health researcher, recently presented a professional overview—yet highly personalized account—of modern medicine’s impact on how we age, and die, in the twenty-first century. His speech, titled “Being Mortal,” based on his book, *Being Mortal: Medicine and What Matters in the End*, was delivered as the 2015 Annual Douglas West Memorial Lecture, an event sponsored by Mount Sinai’s Lilian and Benjamin Hertzberg Palliative Care Institute.

Dr. Gawande, Professor of Surgery at Harvard Medical School, and Health Policy and Management at Harvard School of Public Health, recounted how lessons learned as a medical student and accomplished surgeon collided with new experiences caring for aging family members.

“I learned about a lot of things in medical school, but mortality was not one of them,” he told listeners. “In medicine, we see our



◀ Atul Gawande, MD, MPH, second from left, is joined by, from left, R. Sean Morrison, MD, Director of the Hertzberg Palliative Care Institute, and the National Palliative Care Research Center; Susan West, Advisory Board Member and full-time volunteer, Hertzberg Palliative Care Institute; and Diane E. Meier, MD, Director, Center to Advance Palliative Care.

job as keeping you healthy.” Yet he viewed it as a flawed mission as patients and loved ones approached death. He observed that in the middle of the twentieth century, “Most of us died in our homes. By 1990, 85 percent of us died in institutions, mostly the hospital, and then the nursing home.” Added Dr. Gawande, “We’ve had a 50-year experiment in medicalizing mortality... making it all about your disease, and what we can direct in the care towards it—not about well-being—and I think that that experiment failed.” To the audience that included many palliative care champions



▲ Atul Gawande, MD, MPH, addresses a standing-room-only crowd at The Mount Sinai Hospital’s Stern Auditorium.

from Mount Sinai, he added: “It’s about what matters most to us...that we have as good a life as possible all the way to the very end.”

The full lecture is available at mountsinai.org/palliative.

“Home Away from Home” at the Transplant Living Center

The Mount Sinai Transplant Living Center, which provides convenient and affordable overnight accommodations to patients and their families receiving care at the Recanati/Miller Transplantation Institute (RMTI), has undergone a full renovation, featuring new kitchens, bathrooms, and furniture.

The renovation was a generous gift from benefactors Ken and Meryl Sherman who were looking to give back to RMTI on the fourteenth anniversary of Mrs. Sherman’s successful kidney transplant, for which Mr. Sherman was the donor.

“I wanted to find a way to meaningfully give back to the program and providers who helped give me back my life,” says Mrs. Sherman. “I wanted to give hope and help make a difficult situation more pleasant and warm. I hope this is a place of comfort for those who need it most.”

Located within walking distance to The Mount Sinai Hospital, the Transplant Living Center features ten bedrooms, eight bathrooms, two full kitchens, and large communal dining and living areas. Housed within a doorman-assisted building, the facility also provides fresh linens, housekeeping services in communal areas,



Benefactors Ken and Meryl Sherman

Wi-Fi, an indoor parking garage, coin-operated laundry facilities, and shuttle services to and from The Mount Sinai Hospital.

Says Sander Florman, MD, the Charles Miller, MD Professor of Surgery, and Director of the Recanati/Miller

Transplantation Institute: “This beautiful renovation ensures a home away from home for our patients who travel far and wide to get their care at Mount Sinai. This was a labor of Ken and Meryl Sherman’s love and reflects their commitment to our program and the transplant community, for which we are grateful.”

› A New Approach to Increasing Cord Blood Stem Cells *(continued from page 1)*

Icahn School of Medicine at Mount Sinai, has pioneered a method that promises to significantly increase the number of stem cells in blood cord collections.

“I was ecstatic when we received the grant earlier this year,” Dr. Hoffman says. “It provides a unique opportunity to take something that we’ve developed in the lab and move it into the clinic.” A leader in stem cell research, Dr. Hoffman’s earlier studies of human hematopoietic stem cells and progenitor cells in myeloproliferative neoplasms have led to therapeutic advances.

Research and clinical trials funded by the NYSTEM grant will be carried out

over four years in partnership with AllCells, LLC, and NeoStem Inc., two companies that specialize in cellular therapy. The clinical trials will establish whether Dr. Hoffman’s novel cell expansion method can be safely replicated with human cord blood cells.

NYSTEM aims to foster New York State’s role as a leader in health care by funding promising programs that accelerate scientific knowledge about stem cell biology and the development of therapies and diagnostics that improve human health.

“We’re going to take everything we’ve done at lab scale and see if we can make this

into a process that will meet the standards of the U.S. Food and Drug Administration (FDA),” says Dr. Hoffman.

In the final step of research for the grant, Dr. Hoffman says his team expects to collaborate with a stem cell transplant group at The Mount Sinai Hospital to write clinical protocols to submit to the FDA that would allow the potentially lifesaving technique to be used in humans.

“We are very excited to have this opportunity to work with Dr. Hoffman to move this technology into large-scale production and clinical trials soon,” says Jay Tong, MD, President and CEO, AllCells, LLC.

Around the Health System

Mount Sinai Queens Community Health Fair Draws 900 Attendees



Mount Sinai Queens and the United Community Civic Association co-hosted a daylong neighborhood health fair at Kaufman Astoria Studios on Saturday, June 6, attracting some 900 attendees. Mount Sinai Queens staff offered a wide range of free health screenings, including glucose, cholesterol, blood pressure, asthma, and osteoporosis. They also measured body mass index and provided information on weight control, stress management, and smoking cessation and prevention. Attendees enjoyed free, healthy snacks from the hospital chef, family fun activities, and entertainment.

◀ Members of Mount Sinai Queens' Diversity Council perform a vigorous "dancercise" at the health fair.

Physicians Honored at Annual Spring Dinner

Mount Sinai Beth Israel's Medical Board recently held its annual Spring Physician Dinner at the Manhattan Penthouse on Fifth Avenue. The event honors Beth Israel physicians or trustees for their dedication and contributions to the hospital. This year, the dinner honored five physicians who have served Mount Sinai Beth Israel for more than 50 years: Morton Davidson, MD; Ira Friedman, MD; James Rubin, MD; Joshua Verona, DDS; and David Woldenberg, MD. Kenneth L. Davis, MD, President and Chief Executive Officer, Mount Sinai Health System; and Jeremy Boal, MD, Executive Vice President and Chief Medical Officer, Mount Sinai Health System, were guest speakers at the dinner.



▲ From left: Joshua Verona, DDS, Attending, Division of Dental Medicine; David Woldenberg, MD, Assistant Clinical Professor, Medicine (Cardiology); James Rubin, MD, Division Chief, Clinical Immunology and Allergy; Ira Friedman, MD, Attending, Department of Surgery; Morton Davidson, MD, Attending, Department of Medicine; and Caner Dinlenc, MD, FACS, President, Medical Board of Mount Sinai Beth Israel, who presented the crystal awards.

Reception for LGBT Pride

The Mount Sinai Health System's Office for Diversity and Inclusion hosted its second annual systemwide Wine and Cheese Reception for LGBT Pride Month at Mount Sinai Roosevelt on Thursday, June 11. The event drew faculty, staff, students, and community partners who mingled and learned more about Mount Sinai's LGBT services and activities from Barbara Warren, PsyD, Director, LGBT Programs and Policies, Office for Diversity and Inclusion; Tracy Breen, MD, Chief Medical Officer, Mount Sinai Roosevelt; and Joseph Ruggiero, PhD, Addiction Institute of New York, Mount Sinai Roosevelt.

Dr. Breen and Tim Day, Chief Operating Officer, Mount Sinai Roosevelt, are Co-Chairs of the Mount Sinai Roosevelt Diversity Council, and Dr. Ruggiero serves as Chair of the Mount Sinai Roosevelt LGBT Employee Resource Group. They encouraged guests to reach out to colleagues and friends and become involved in Mount Sinai's LGBT Employee Resource Groups or hospital site councils.



▲ From left: Tracy Breen, MD; Tim Day; Matthew Baney, Administrative Director, Institute for Advanced Medicine, Mount Sinai Health System; Carla Moscoso, Director, Practice Operations, Mount Sinai Queens; Stuart Cunningham, Finance Manager, Network Development, Mount Sinai Health System; Josabeth Diaz, Administrative Assistant; and Brian Angelos, Director of Finance, Ambulatory Care, Mount Sinai Health System.

EVENT

ICD-10 Town Hall

Staff is invited to join the Program Management Office and project leaders for updates and a discussion of the ICD-10 implementation.

Wednesday, July 1

10 – 11 am

**The Mount Sinai Hospital Campus
Hess Center, Davis Auditorium**

Grand Rounds / Medicine

Victor L. Schuster, MD, Senior Vice Dean, Albert Einstein College of Medicine, presents “The 42nd Annual Solomon A. Berson Memorial Lectureship: Jack Sprat Growing Fat: Obesity Past, Present, Future.”

Tuesday, July 7

8:30 – 9:30 am

**The Mount Sinai Hospital Campus
Hatch Auditorium**

Grand Rounds / Medicine

Harry D. Fischer, MD, Chief, Division of Rheumatology, Mount Sinai Beth Israel, presents “Summer Research Series: Rheumatology.”

Tuesday, July 7

8:30 – 9:30 am

**Mount Sinai Beth Israel
Podell Auditorium, Bernstein Pavilion**

Grand Rounds / Family Medicine and Community Health

David Newman, MD, Associate Professor of Emergency Medicine, presents “Health Care’s Most Important Reform: The Doctor.”

Friday, July 10

8 – 9 am

**The Mount Sinai Hospital Campus
Hatch Auditorium**

Grand Rounds / Orthopaedics

Lee Rogers, DPM, Medical Director, Amputation Prevention Center, Sherman Oaks Hospital, presents “Chronic Wound Management: Addressing the Challenge of Diabetic Foot Ulcers.”

Tuesday, July 21

7 pm

**The Mount Sinai Hospital Campus
Hess Center, Davis Auditorium**

ANNOUNCEMENT

2016 Conference Center Requests

The Conference Center for The Mount Sinai Hospital campus will begin taking requests for the 2016 calendar year on Monday, July 13, starting with departmental grand rounds and medical student training rounds. On Monday, July 20, the Conference Center will begin taking all other requests for the 2016 calendar year.

For an updated listing of rooms, visit <http://intranet1.mountsinai.org>. On the top of the page, select the “Other Services” tab, then under “Employee Services,” select the “Conference Center” link. Select “Institutional Space” for a listing of rooms. Note: Requests submitted with missing information, such as fund number or department code, will not be accepted and will delay processing of a request.

Monday, July 13 (Grand Rounds/Training Rounds)

Monday, July 20 (All other requests)



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