



Mount Sinai

# inside

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## A New Data-Sharing Platform Developed at Mount Sinai Promises to Advance Digital Health Care

A new knowledge and data-sharing platform created by researchers at the Mount Sinai Health System is designed to help physicians weed through the thousands of mobile health apps that enter the market each year and identify the ones that successfully improve patient health.

Called NODE Health (Network of Digital Evidence in Health), the platform was created by researchers at Mount Sinai's AppLab, which is led by Ashish Atreja, MD, MPH, Chief Technology Innovation and Engagement Officer in the Department of Medicine, and Assistant Professor of Medicine (Gastroenterology). NODEHealth.org will provide physicians and other health care providers with an evidence-based review process and data-sharing network that is similar to ClinicalTrials.gov, enabling them to compare studies from around the world to find the health care apps that work best for their specialized needs.

Physicians will be able to share information about digital products, such as apps that are being used experimentally, to prevent duplication of efforts. They will also be able to



Ashish Atreja, MD, MPH, center, with Bruce Darrow, MD, PhD, Associate Professor of Medicine (Cardiology) and Chief Medical Information Officer, Mount Sinai Health System, left, and Jagat Narula, MD, PhD, Associate Dean for Global Affairs, the Philip J. and Harriet L. Goodhart Professor of Medicine, and editorial board member of Mount Sinai's upcoming *Journal of Digital Medicine Evidence*.

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## Medical Students Celebrate Match Day 2016

The upbeat dance-pop song "Feel This Moment" was playing at full volume in the Annenberg West lobby on Friday, March 18, as graduating medical students opened their envelopes to learn which residency programs they would be attending during the next phase of their training. Joining them were family members, friends, and Mount Sinai Health System physicians and staff who shared in their energy and excitement, and offered hugs and congratulations during the annual Match Day event.



Carine Davila, left, matched to the University of California San Francisco Medical Center for Internal Medicine; and Mariam Mathai matched to Georgetown-Washington Hospital Center for Ophthalmology.

were matched to residency programs throughout the country, including highly competitive ones at Brigham and Women's Hospital, Hospital of the University of Pennsylvania, Yale-New Haven Hospital, Duke University Medical Center, and University of California San Francisco Medical Center. Fifty one students will remain within the Mount Sinai Health System to continue all or part of their graduate training.

"Our students matched to great programs nationwide," says Peter Gliatto, MD, Senior Associate Dean, Undergraduate Medical Education and Student Affairs,

The Icahn School of Medicine at Mount Sinai's graduating students

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# Attacking Two Targets in Multiple Myeloma

Research into a novel treatment that could help extend the lives of patients with multiple myeloma—a disease in which cancerous blood cells proliferate in the bone marrow—is being advanced by scientists at The Tisch Cancer Institute at the Icahn School of Medicine at Mount Sinai, who recently identified a new drug target called ARK5.

The Mount Sinai scientists discovered that when ARK5 is targeted simultaneously with CDK4, a pathway widely known to have a role in inhibiting multiple myeloma, the results were extremely effective in causing cell death. Their findings were published in the March 15, 2016, issue of the journal *Cancer Research*.

“Just targeting one cellular pathway hasn’t worked,” says the study’s principal investigator Samir Parekh, MD, Associate Professor of Medicine (Hematology and Medical Oncology), and Oncological Sciences at the Icahn School of Medicine at Mount Sinai. “Our novel findings showed there was a powerful and synergistic antimyeloma effect by the inhibition of CDK4 and ARK5 proteins.”

In their research, Dr. Parekh, and the study’s lead author Deepak Perumal, PhD, a postdoctoral scientist in Hematology and Medical Oncology, successfully tested a promising small molecule drug known as ON123300 that is capable of blocking both proteins. The drug—previously shown to be highly sensitive to breast cancer, mantle cell

lymphoma, and a form of brain cancer—was developed by Onconova Therapeutics, Inc. USA, in collaboration with E. Premkumar Reddy, PhD, Director of Experimental Therapeutics at the Icahn School of Medicine at Mount Sinai.

ON123300 showed that it was able to kill cancer cells with great precision, making it highly distinguishable from prior drugs that focused on inhibiting cell cycle regulators such as CDKs that were able to halt disease progression but could not completely destroy malignant cells.

“There have been numerous studies on CDK4 inhibitors, but most of them have failed because of high toxicity and lack of selectivity,” says Dr. Perumal. “We want to learn more about the underlying biology of multiple myeloma so that we can see improvements in new therapeutic treatments for this disease.”

In the next stage of development, the researchers plan to test the novel drug in a clinical setting.

The American Cancer Society estimates that 30,330 new cases of multiple myeloma will be diagnosed in 2016, and 12,650 deaths will



Investigators, from left, Samir Parekh, MD; and Deepak Perumal, PhD

result from the disease, in which cancerous blood cells prevent the normal production of antibodies, leaving the body’s immune system weakened and susceptible to further disease. Current treatment involves a combination of drug therapy and bone marrow transplantation.

The Tisch Cancer Institute’s renowned Multiple Myeloma Program, led by Sundar Jagannath, MD, Professor of Medicine (Hematology and Medical Oncology), is the largest of its kind in New York City, and draws myeloma patients from around the world. The program specializes in the treatment of the most severe cases of multiple myeloma in patients who have failed multiple therapies.

“These now are the patients who can be targeted by new agents,” says Dr. Perumal.

## › A New Data-Sharing Platform Developed at Mount Sinai *(continued from page 1)*

launch initiatives that support multisite digital medicine pilots, publish their results in the new online *Journal of Digital Medicine Evidence* that will go live in the summer, and be able to refer to a registry of digital medicine trials. Health systems and academic medical centers will also be able to host free webinars on the site.

“So much innovation is taking place. There are now more than 165,000 health apps in the Apple store and no one knows what to do with them,” says Dr. Atreja. “What’s lacking is evidence that shows the value of these apps in terms of improving patient outcomes. We need to know which ones are high quality. We are shaping a consortium of academic medical centers and health systems that will work together to lay the foundation for evidence-based digital medicine and apply the same scientific approach to apps that we have for drugs.”

The burgeoning health app market reflects increased demand from consumers and health care providers. A 2015 survey by Research Now,

a market research firm, found that an overwhelming majority of health care providers think apps can increase their knowledge about patients’ conditions and encourage patients to take more responsibility for their own health. According to the survey, 96 percent of consumers thought the apps helped improve their quality of life.

“Doctors should demand the same standard of evidence for an app that they would demand for a pill,” says Dr. Atreja. “None of us can build evidence alone. That’s why we are launching a global network that will also provide a formal channel for Mount Sinai trainees, researchers, and clinicians to engage with and contribute to the latest in digital medicine initiatives.”

Mount Sinai Health System providers across different specialties can join the Mount Sinai Innovation Champions group and become part of NODE Health by emailing Dr. Atreja at [ashish.atreja@mssm.edu](mailto:ashish.atreja@mssm.edu).

## › Medical Students Celebrate Match Day 2016 *(continued from page 1)*

Icahn School of Medicine at Mount Sinai. “It is no surprise, because they consistently rank among the top in the country in volunteer experiences, research publications, and board scores, and they also stand out because of their dedication to making our profession a better one.”

The Icahn School of Medicine students were among 18,000 around the nation who participated in the annual Match Day event, which this year was the largest match on record. Match Day is managed by the National Resident Matching Program, a private, nonprofit organization that matches students with residencies in U.S. teaching hospitals. The results are generated by a computerized algorithm that aligns the preferences of applicants with those of residency programs.

*“Our students matched to great programs nationwide. It is no surprise, because they consistently rank among the top in the country...”*

—Peter Gliatto, MD

Sonia Yen Jarrett, who will train in pediatrics at Children’s Hospital of Philadelphia, was delighted with her match. “I was overjoyed, excited, and most of all grateful to have matched to my top program. I’m looking forward to becoming part of the diverse Philadelphia community and working to bridge health disparities in the underserved pediatric population.”

Bunmi Okunlola will start her residency in anesthesiology and could not be happier with her match. “I was ecstatic when I matched at the Icahn School of Medicine, my top choice, because I truly believe it will be a great fit for me,” she said. “I couldn’t ask for more.”

“I am beyond excited that I matched at Brigham and Women’s Hospital in Boston for my general surgery residency,” said Adam Fields. “This was my first choice. I am considering specializing in surgical oncology or minimally invasive surgery. I plan to continue clinical outcomes surgical research and pursue an advanced degree in public health or education.”

In all, 25.5 percent of the graduating class will receive residency training in internal medicine; 12.6 percent in pediatrics; 8.4 percent in emergency medicine; 7.8 percent in anesthesiology; 6.4 percent in psychiatry; and 39.3 percent will pursue training in other specialties that include neurology, obstetrics–gynecology, radiation oncology, and surgery.



Celebrating their residency matches were, from left: Sonia Yen Jarrett, Children’s Hospital of Philadelphia (Pediatrics); Jake Goldman Prigoff, NewYork Presbyterian Hospital/Columbia University Medical Center (General Surgery); and Adam Fields, Brigham and Women’s Hospital (General Surgery).



Carlos Plata-Martinez, who matched with the Icahn School of Medicine at Mount Sinai (Anesthesiology), celebrates with his mother, Ivette Plata, DDS, and his sister, Beatriz Juliana Plata.



Bunmi Okunlola, left, and Sonali Tatapudy are pursuing residencies at the Icahn School of Medicine at Mount Sinai in anesthesiology and pediatrics, respectively.

## Around the Health System



The Mount Sinai Hospital's Endoscopy Center team, along with Mount Sinai staff and volunteers and members of the Colon Cancer Challenge Foundation, in front of the "Rollin' Colon" educational exhibit.

## Raising Awareness About Colon Cancer

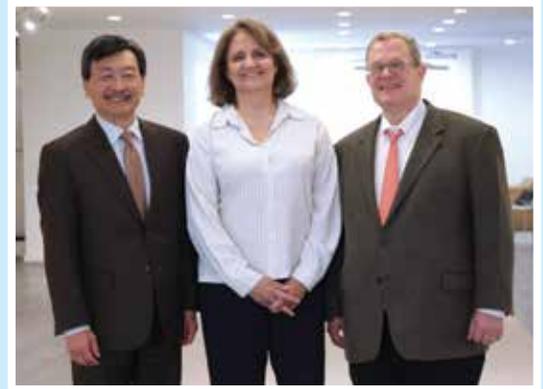
Nearly 1,000 people participated in Colorectal Cancer Awareness Month activities on Wednesday, March 2, at The Mount Sinai Hospital. Visitors picked up educational literature and giveaways, and walked through a 30-ft. inflatable model of a colon, known as the "Rollin' Colon"—provided by the Colon Cancer Challenge Foundation—that exhibits polyps and other signs of colon cancer. They also had the opportunity to talk with nurses, physicians, geneticists, nutritionists, and endoscopy staff. Forty seven attendees signed up for a screening colonoscopy. The event was hosted by The Mount Sinai Hospital Endoscopy Center.



## Corporate Services Center Receives LEED Silver Certification

The Mount Sinai Health System's new Corporate Services Center at 150 East 42nd Street has received Leadership in Energy and Environmental Design (LEED) Silver Certification from Green Business Certification Inc., a program that recognizes best-in-class building strategies and practices.

Certification requires that building projects satisfy prerequisites in areas such as Indoor Environmental Quality, Water Efficiency, and Innovation in Design. "The LEED rating system aims to help owners be environmentally responsible and use resources efficiently," says Loida Ramos, Vice President, Planning, Design and Construction. "LEED certification means healthier, more productive places, and reduced stress on the environment."



From left: Thomas C. Ahn, Vice President, Real Estate; Loida Ramos; and Kenneth Holden, Chief Facilities Officer, Department of Real Estate and Facilities

## A Generous Gift for Neonatal Intensive Care Unit at Mount Sinai West



Mount Sinai West's Neonatal Intensive Care Unit (NICU) now features more family-friendly décor and an upgraded nursing station thanks to a gift from the former St. Luke's and Roosevelt (SLR) Associate Trustees. The group, which existed from 1994 to 2014, made the gift in January 2015, and—after the project was completed—gathered for a recent dedication ceremony at the NICU. The SLR Associate Trustees consisted of members of the SLR community who volunteered, hosted fundraisers, and served as advocates on behalf of the hospitals for more than 20 years. The group provided significant support for Mount Sinai West and Mount Sinai St. Luke's, and made a recent contribution to the Child and Family Institute at Mount Sinai St. Luke's.

At the Mount Sinai West NICU, from left: Timothy Day, Chief Operating Officer, Mount Sinai West; Missi Gibbs, Marcia Aronowitz, Helga Loring, Lisa Eiland, MD, Terri Benvenisty, Sandra Nunez, and Age B. Diedrick, former Associate Trustees; Evan L. Flatow, MD, President, Mount Sinai West; Sue Fenton, former Associate Trustee; Nori Yaun, RN, Nurse Manager, NICU; and Naveen Rahman Bhora, Vivien Clark, and B.J. McKinley, former Associate Trustees.

# Seven Mount Sinai Leaders Receive 2016 Jacobi Medallion

Nearly 350 Mount Sinai Health System alumni, donors, faculty, students, and staff gathered at The Plaza on Wednesday, March 16, to honor seven leaders with the 2016 Jacobi Medallion, the highest award bestowed by Mount Sinai in recognition of distinguished achievement in the field of medicine or extraordinary service to the hospital, the school, or the alumni.

Dennis S. Charney, MD, Anne and Joel Ehrenkranz Dean, Icahn School of Medicine at Mount Sinai, and President for Academic Affairs, Mount Sinai Health System, highlighted recent achievements. “As Mount Sinai continues to grow, important partnerships and opportunities are preparing our medical school and graduate students to be health care innovators and entrepreneurs,” he told the guests. He also noted that the Icahn School of Medicine, for the first time, has been ranked No. 15 nationwide in National Institutes of Health research funding. “Our 2016 Jacobi Medallion recipients are part of this extraordinary trajectory of accomplishment and embody what is best about our School of Medicine: exceptional talent, an ingrained sense of commitment, and dedication to outstanding research, patient care, and education,” said Dr. Charney.



Standing, from left: Kenneth L. Davis, MD, President and Chief Executive Officer, Mount Sinai Health System; Adolfo García-Sastre, PhD; Dennis S. Charney, MD; Alexander Kirschenbaum, MD; Donald Bergman, MD, President, The Mount Sinai Alumni Association, and Clinical Professor of Medicine; Albert L. Siu, MD, MSPH; and William Lawson, MD, DDS. Seated from left: Jean C. Crystal; Jewel Mullen, MD, MPH, MPA; Sandra K. Masur, PhD, Chair, Jacobi Medallion Selection Committee, and Professor of Ophthalmology; and Rosanne M. Leipzig, MD, PhD.

## THE HONOREES ARE:

### **Jean C. Crystal, visionary philanthropist and Trustee of the Mount Sinai Health System**

A Trustee since 1995, Ms. Crystal was recognized as an inspirational philanthropic leader and an extraordinary volunteer who has shaped many initiatives at Mount Sinai, among them The Mount Sinai Hospital Ambassador Program, whose 125 volunteers welcome and assist dozens of patients and visitors daily.

### **Adolfo García-Sastre, PhD, Irene and Dr. Arthur M. Fishberg Professor of Medicine; Professor, Department of Microbiology; and Director, Global Health and Emerging Pathogens Institute**

For 25 years, Dr. García-Sastre has made landmark contributions to the influenza virus field, including the successful development of reverse genetics techniques allowing the recreation of the influenza virus from recombinant DNA.

### **Alexander Kirschenbaum, MD, Associate Clinical Professor of Urology, and Oncological Sciences**

Consistently recognized as an “America’s Top Doctor” and “America’s Top Doctor for Cancer” by Castle Connolly Medical Ltd., Dr. Kirschenbaum additionally is a noted translational researcher and mentor to generations of high school, college, medical, pre- and postdoctoral students in the laboratory and clinic.

### **William Lawson, MD, DDS, Eugen Grabscheid Research Professor of Otolaryngology; Vice Chair, Otolaryngology; and Director of Facial Plastic and Reconstructive Surgery**

Dr. Lawson’s clinical focus is on esthetic and functional rhinoplasty, facial plastic and reconstructive surgery, and sinonasal and anterior skull-base tumors. Among many of

his surgical innovations is the pectoralis major myocutaneous flap, now a universal method used for reconstructive head and neck surgery.

### **Rosanne M. Leipzig, MD, PhD, Gerald and May Ellen Ritter Professor and Vice Chair for Education, Brookdale Department of Geriatrics and Palliative Medicine**

An internationally recognized leader in geriatrics and evidence-based medicine, Dr. Leipzig has taught and inspired hundreds of physicians, physicians-in-training, nurses, and social workers, building a geriatric program considered one of the nation’s best.

### **Jewel Mullen, MD, MPH, MPA, Principal Deputy Assistant Secretary for Health, U.S. Department of Health and Human Services**

In a career that has spanned clinical care, research, teaching, and administrative oversight, Dr. Mullen has achieved global acclaim for improving individual and population health by strengthening coordination among community, public health, and health care systems with a focus on the underserved population.

### **Albert L. Siu, MD, MSPH, the Ellen and Howard C. Katz Chair in Geriatrics and Palliative Medicine, and Mount Sinai Health System Chair, Brookdale Department of Geriatrics and Palliative Medicine**

Dr. Siu’s significant achievements as a clinician, educator, and health services and policy researcher in the area of improving quality and delivery of care, particularly in geriatric populations, represent the highest expression of excellence in academic medicine.

## Thirteenth Annual Education Research Day

This year's event will showcase 60 abstracts by faculty, students, staff, and house staff. *Sponsored by the Institute for Medical Education.*

**Tuesday, April 19**  
10 am – 4 pm  
The Mount Sinai Hospital Campus  
Guggenheim Atrium

### Grand Rounds / Medicine

Aryeh Fischer, MD, Associate Professor, Medicine (Rheumatology, and Pulmonary Sciences and Critical Care Medicine), University of Colorado School of Medicine, presents "Patricia and Morton David Pulmonary Lecture: Connective Tissue Disease-Associated Interstitial Lung Disease."

**Tuesday, April 5**  
8:30 – 9:30 am  
Mount Sinai Beth Israel  
Podell Auditorium, Bernstein Pavilion

### Grand Rounds / Family Medicine and Community Health

Eliseo J. Perez-Stable, MD, Director, National Institute on Minority Health and Health Disparities (NIMHD), National Institutes of Health, presents "Reducing Disparities in Health Outcomes: The NIMHD Agenda on Equity."

**Friday, April 8**  
8 – 9 am  
The Mount Sinai Hospital Campus  
Hatch Auditorium

### Grand Rounds / Institute for Medical Education

S. Beth Bierer, PhD, Director, Evaluation, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, presents "Time to Loosen the Apron Strings: Evaluation of a Learner-Driven Remediation Model at One Medical School."

**Wednesday, April 13**  
Noon – 1 pm  
The Mount Sinai Hospital Campus  
Hess Center, Room 5-101

### Seminar Series / Seaver Autism Institute

Jed Elison, PhD, Assistant Professor, Institute of Child Development, University of Minnesota, presents "Using Brain-Based Biomarkers to Predict Individual Differences in Social and Cognitive Functioning."

**Wednesday, April 20**  
2 – 3 pm  
The Mount Sinai Hospital Campus  
Hess Center, Seminar Room B

## National Walking Day: Thursday, April 7

Mount Sinai Heart will host 30-minute walks to raise awareness of the importance of daily physical activity in maintaining cardiovascular health. Walks begin at noon from the following locations:

### The Mount Sinai Hospital

Walk around Central Park Reservoir  
Meet: Guggenheim Pavilion Atrium

### Mount Sinai Queens

Walk in Astoria Park  
Meet: Hospital Entrance

### Mount Sinai Beth Israel

Walk around the neighborhood  
Meet: Linsky Building Lobby

### Mount Sinai St. Luke's

Walk to 110th Street and Morningside, and along the park to 120th Street  
Meet: Outside the hospital, Amsterdam Avenue

## Twentieth Annual Douglas West Endowed Memorial Lecture

The Lilian and Benjamin Hertzberg Palliative Care Institute of the Brookdale Department of Geriatrics and Palliative Medicine invites staff and guests as R. Sean Morrison, MD, presents "How Palliative Care is Transforming American Medicine." Dr. Morrison is the Director of the Hertzberg Palliative Care Institute, Co-Director of the Patty and Jay Baker National Palliative Care Center, and the Hermann Merkin Professor of Palliative Medicine. RSVPs encouraged. *For more information, email Katherine.Madden@mssm.edu or call 212-241-0117.*

**Wednesday, April 20**  
5:30 pm  
The Mount Sinai Hospital Campus  
Goldwurm Auditorium

## Posman Books Extends Hours

Posman Books, in the Annenberg Lobby, is now open until 7:30 pm on Tuesday and Wednesday evenings, through April. The hours are as follows:

**Monday: 8:30 am – 6 pm**  
**Tuesday: 8:30 am – 7:30 pm**  
**Wednesday: 8:30 am – 7:30 pm**  
**Thursday: 8:30 am – 6 pm**  
**Friday: 8:30 am – 4 pm**



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