



Mount Sinai

inside

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Breaking New Ground in Multiple Sclerosis Research

Researchers at Mount Sinai's Corinne Goldsmith Dickinson Center for Multiple Sclerosis played a key role in developing a potential breakthrough treatment for progressive multiple sclerosis (MS), according to findings that were presented in October 2015 at the meeting of the European Committee for Treatment and Research in MS in Barcelona, Spain. The Center also recently received funding to lead a new international coalition tasked with developing a strategy for diagnosing progressive MS earlier. Both efforts further strengthen Mount Sinai's reputation as a worldwide leader in MS research.

"To date, there has been no approved treatment for progressive MS, the most debilitating form of the disease," says Fred D. Lublin, MD, Saunders Family Professor of Neurology at the Icahn School of Medicine at Mount Sinai and Director of the Center.

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Physicians and scientists at the Corinne Goldsmith Dickinson Center for Multiple Sclerosis are leaders in multiple sclerosis care and research. Clockwise from top left: Fred D. Lublin, MD; Aaron E. Miller, MD; Patrizia Casaccia, MD, PhD; and Gareth John, PhD.

Living a Vibrant Life with Multiple Sclerosis



Catherine Roosevelt at the recent Fourteenth Annual Gala of the Corinne Goldsmith Dickinson Center for Multiple Sclerosis.

Catherine Roosevelt is a vibrant 30-year-old woman who is dedicated both to her career as the Advancement Director for a nonprofit organization serving girls living in poverty and to her numerous volunteer commitments. In a typical year, she travels an average of one weekend a month for work or volunteer service and spends a month every summer in Lake Placid, New York, co-directing a summer camp. Combined with a busy social life, her days and evenings can be stressful and tiring, but maintaining an active schedule validates a promise she made to herself six years ago, when she was diagnosed with multiple sclerosis (MS): "I won't let my disease define me."

Ms. Roosevelt was a 24-year-old graduate student at the University of Michigan when, she recalls, "I woke up one morning and my whole left side was numb." She soon learned that she had relapsing-remitting multiple sclerosis: "When you first get that diagnosis, it rocks your whole world," she remembers. She moved to New York City a year and a half later, and now, with the support of Mount Sinai's Corinne Goldsmith Dickinson Center for Multiple Sclerosis, she lives a full life.

"At Mount Sinai, there is a whole team supporting me to pursue the life I want to lead," says Ms. Roosevelt. "MS can be a scary disease, but at Mount Sinai, it's not gloom and

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Fourteenth Annual Gala for Multiple Sclerosis

Two hundred and fifty donors, patients, faculty, and friends attended the Fourteenth Annual Gala of the Corinne Goldsmith Dickinson Center for Multiple Sclerosis on Thursday, March 3, at The Plaza. Proceeds from the Gala support the Center's multidisciplinary patient care and innovative research.

Fred D. Lublin, MD, Saunders Family Professor of Neurology at the Icahn School of Medicine at Mount Sinai and the Center's Director, welcomed the guests and spoke of recent advances in treating multiple sclerosis.

The Gala honored Kieran McLaughlin, an award-winning thoroughbred racehorse trainer who is a patient at the Center. He was interviewed at the event by CBS News Correspondent Michelle Miller and shared his personal story of living a life of accomplishment while facing

the daily challenges of managing multiple sclerosis.

The Clifford H. Goldsmith Award for Outstanding Service was presented to the Center's Administrator, Donna Polisar, PhD, for her longtime dedication and commitment to excellence.



From left: Katherine Goldsmith; George J. Gillespie, III; and Joan Noto, President of the Corinne Goldsmith Dickinson Center for Multiple Sclerosis Advisory Board. The Center was founded in 2001 with generous gifts from the late Mount Sinai Trustee Clifford H. Goldsmith and Mr. Gillespie.



From left: Honoree Kieran McLaughlin; Michelle Miller; and Sarah Rinaldi, Friends of Mount Sinai Chair.

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MS is a complicated, often disabling disease of the central nervous system that can affect any part of the body as it disrupts the flow of information within the brain and spinal cord, and between the brain and body.

Mount Sinai's Center was a trial site in the first pivotal Phase 3 study to show efficacy in treating primary progressive MS with a monoclonal antibody, ocrelizumab, which significantly reduced the rate of disability accrual in study participants. Dr. Lublin was a member of the steering committee that designed and monitored the study. He is also the principal investigator of the international coalition project, which will test potential clinical, MRI, and biomarker predictors for the disease.

These are exciting developments for Mount Sinai clinicians and scientists who previously helped advance new treatments for relapsing-remitting MS, the most common form of the disease. Those efforts included the development of the first oral disease-modifying drug approved by the U.S. Food and Drug Administration, as well as higher-potency infusions to reduce

relapses and delay disability progression.

Today, researchers have robust funding in a number of key areas, which include:

- Preventing inflammatory cells and antibodies from entering the central nervous system during disease relapse to limit risk of permanent damage to the brain and spinal cord, led by Gareth John, PhD, Professor of Neurology, and head of the Center's MS Research Laboratory.
- Discerning the role of intestinal microbiota in the onset and course of MS, led by Patrizia Casaccia, MD, PhD, Professor of Genetics and Genomic Sciences, Neuroscience, and Neurology; Ilana Katz-Sand, MD, Assistant Professor of Neurology; and Matilde Inglese, MD, PhD, Associate Professor of Neurology, Neuroscience, and Radiology.
- Exploring the safety and feasibility of using a powered exoskeleton to assist in walking, led by Michelle Fabian, MD, Assistant Professor of Neurology.

The Center, created in 2001, was one of the first in the nation to be certified as a comprehensive MS care facility by the National MS Society. In addition to Dr. Lublin and Aaron E. Miller, MD, Medical Director and Professor of Neurology, the Center includes four neurologists, nurse practitioners, social workers, fellows, and a clinical trial coordinating staff. Noted neuropsychologist James Sumowski, PhD, will join the team this spring. The Center is renowned for its programs in diagnostics, disease management, specialized support services, and education.

In 2015, the Center established satellite offices in two locations: Mount Sinai West, headed by Sylvia Klineova, MD, Assistant Professor of Neurology; and Mount Sinai Beth Israel's Phillips Ambulatory Care Center, led by Dr. Fabian.

Says Dr. Lublin: "We can do so much more for people now. We can offer them individualized care and a much better outlook on the future."

To learn more, visit www.mountsinai.org/ms.

Icahn School of Medicine Honors Two New Deans At Black History Month Celebration

During Black History Month in February, the Icahn School of Medicine at Mount Sinai honored its first black male deans, Gary C. Butts, MD, and Reginald Miller, DVM, for their significant contributions to the institution.

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, spoke at the Honorary Deans' Reception that was hosted by Mount Sinai's Office for Diversity and Inclusion and Black Leaders Advocating for Change and Community, an employee resource group.



From left: Reginald Miller, DVM; Dennis S. Charney, MD; and Gary Butts, MD, at the Honorary Deans' Reception held during Black History Month.

“Mount Sinai is dedicated to diversity in all of its aspects,” said Dr. Charney. “There are many reasons why this is important. It creates a more enriched learning environment for all students, and enables us to offer our patients better care, particularly those who are underserved. And it facilitates the conduct of research that will benefit patients with the most serious medical diseases. I am counting on Dr. Butts and

Dr. Miller to provide critical leadership in all of these diversity related efforts.”

Dr. Butts, who was recently named Dean for Diversity Programs, Policy, and Community Affairs, is a Professor of Pediatrics, Medical Education, and Preventive Medicine. He has spent more than three decades providing health care services to underserved

populations in East and Central Harlem. For more than 15 years he has spearheaded efforts to improve and sustain racial, ethnic, and gender diversity throughout the Icahn School of Medicine. Under his leadership, the School's Center for Multicultural Affairs has been recognized as a Health Resources and Services Administration Center of Excellence for Minority Health.

As Dean for Research Operations and Infrastructure, Dr. Miller has primary responsibility for ensuring the availability and appropriateness of resources, facilities, and functions necessary for conducting basic research within the Icahn School of Medicine. Dr. Miller also serves

as Chair of the Diversity in Biomedical Research Council, which focuses on the recruitment of underrepresented students in science to Mount Sinai's graduate programs. And he is Director of Friends of Odysseus, a mentoring program for black and Latino men that focuses on recruitment, retention, and promotion of students, faculty, and postdoctoral, clinical, and research trainees.

› Living a Vibrant Life with Multiple Sclerosis *(continued from page 1)*

doom—it's about empowering the patient. It is a place that is rooted in making things the best that they can possibly be.”

Stephen Krieger, MD, Associate Professor of Neurology at the Icahn School of Medicine at Mount Sinai, oversees Ms. Roosevelt's care.

“Dr. Krieger has my best interests at heart, not just as a patient, but as a person,” says Ms. Roosevelt. “He knows about my family, my friends, and what I'm up to. He knows what I want to accomplish in my life, and the entire team supports me to get there. You don't find that everywhere.”

Says Dr. Krieger: “I want every patient who comes to see me to walk out feeling more assured than they were before, no matter what is happening.” In Catherine's case, this has meant changing her MS therapy twice, both to minimize side effects and to respond proactively to subtle changes on imaging scans that could indicate a less-than-optimal response to treatment. According to Dr. Krieger,

“Ensuring that the right medication strategy is chosen for the right patient at the right time, and evaluating that dynamically with an individual's lifestyle, is particularly important because no two people with MS are exactly the same.”

Today, Ms. Roosevelt is a member of the Center's Patient Initiative Committee, a group of approximately 12 patients and staff that meets regularly to discuss ways to best support the Center and other patients.

“With MS, every day is an adventure,” says Ms. Roosevelt. “Waking up in the morning and not knowing what I'll be capable of doing that day can be terrifying. But the Mount Sinai team changes the conversation and allows people to live a pretty darn normal life. I don't know what the future holds, but right now, I can wear four-inch heels, and that is awesome.”

Around the Health System

Pediatric Cardiology Patients Celebrate Life

Dozens of pediatric heart patients who have undergone successful procedures, ranging from valve repairs to heart transplants, recently returned to Kravis Children's Hospital at Mount Sinai to celebrate life and reconnect with other patients and clinical staff at the Thirtieth Annual Valentine's Day Reunion Party.

The children enjoyed snacks and face painting activities at the event, which was sponsored by the Hospital's Division of Pediatric Cardiology and Department of Cardiothoracic Surgery, and Project Sunshine, a nonprofit



Rica Arnon, MD, left, Associate Professor, Pediatrics (Cardiology), reunites with her patient, Mason Archibald, being held by his father, Damon.



Project Sunshine volunteers Miss Universe Pia Wurtzbach, left, and Miss USA Olivia Jordan spend time with patient Angel Santos at the Thirtieth Annual Valentine's Day Reunion Party.

organization that helps children facing medical challenges. The Children's Heart Fund and Harboring Hearts also provided support.

"Great Catch Awards" Presented



From left: Louella Rudon, Laboratory Manager, Transfusion Medicine; Alina Sanocki; Patricia Galdon, Quality Assurance Manager, Transfusion Medicine; and Vicki LoPachin, MD.

Patient safety is a high priority at The Mount Sinai Hospital, and the Great Catch Program, which teaches staff how to identify and alert leadership to potential safety issues and rewards them for their efforts, is a key component. On Wednesday, February 17, Karen Lott, RN, Department of Perioperative Services, and Alina Sanocki, Lab Tech C, Transfusion Medicine Laboratory, were presented with the Hospital's first Great Catch Awards. Each received a crystal trophy and a certificate of excellence signed by David L. Reich, MD, President, The Mount Sinai Hospital and Mount Sinai Queens, and Vicki LoPachin, MD, Chief Medical Officer, The Mount Sinai Hospital. Their respective units also received trophies.

Gary Rosenberg, PhD, Retires from Mount Sinai's Community Advisory Board

Gary Rosenberg, PhD, the Edith J. Baerwald Professor of Preventive Medicine at the Icahn School of Medicine at Mount Sinai, received an award for 30 years of service as Chair of the Mount Sinai Community Advisory Board (CAB) when he retired from that position on Tuesday, February 23.

"Dr. Rosenberg has done a remarkable job chairing the CAB, forging strong connections to the community—particularly the residents of East Harlem—and ensuring that The Mount Sinai Hospital listens and responds to their health care needs and interests," says John S. Winkleman, Trustee and Chair, Community Relations Committee, Mount Sinai Health System. David C. Thomas, MD, Professor of Medicine (Internal Medicine), Medical Education, and Rehabilitation Medicine, has been elected as the new Chair of the CAB, which was formed in 1979 as a Boards of Trustees committee.



From left: David L. Reich, MD, President, The Mount Sinai Hospital and Mount Sinai Queens; Marie Winfield, newly elected CAB Vice Chair; John S. Winkleman; Gary Rosenberg, PhD; and David C. Thomas, MD.

New Technology That Serves as an Artificial Pancreas Is Revolutionizing the Management of Type 1 Diabetes

Research under way at the Icahn School of Medicine at Mount Sinai is revolutionizing the management of type 1 diabetes by using novel technology that serves as an artificial pancreas and automatically enables patients to achieve more stable glucose levels 24 hours a day.

Led by Carol Levy, MD, Associate Professor of Medicine (Endocrinology, Diabetes and Bone Disease), the Icahn School of Medicine is one of nine U.S. and European sites participating in the research, and sharing a \$12.7 million grant from the National Institutes of Health. Dr. Levy is one of the study's lead investigators.

The InControl AP (Artificial Pancreas) system, developed at the University of Virginia, runs a software algorithm on a smartphone that communicates with a standard insulin pump and an implanted glucose sensor that identify and maintain a personalized blood-glucose range for each patient. The system monitors and controls the patient's blood-glucose levels to avert nighttime hypoglycemia and ensure a goal glucose level in the morning. The application takes into account variables that include meals, physical activity, sleep, and stress.

The 240-patient trial, expected to start this spring, will run for three years and compare the InControl AP system to a control of a standard insulin pump to assess how well blood-sugar levels are controlled and whether the risk of hypoglycemia is reduced. This will be one of the largest long-term clinical trials of an artificial pancreas ever to be done in the home setting.

The new study builds on research conducted at Mount Sinai in 2014-2015. In collaboration with the University of Virginia and the Mayo Clinic, that study



The AP (Artificial Pancreas) system runs an algorithm on a smartphone that communicates with an insulin pump and an implanted glucose sensor.

The system monitors and controls the patient's blood-glucose levels to avert nighttime hypoglycemia and ensure a goal glucose level in the morning.

followed 10 patients with type 1 diabetes for five days and was the first outpatient study of an AP system in New York State.

“That initial study showed that patients achieved stable glucose levels during the night and that the AP system led to

improved blood-sugar control throughout the next day, as well,” says Dr. Levy.

A second study conducted by Dr. Levy's team in November 2015 was done in partnership with the Rensselaer Polytechnic Institute, Stanford University, and the Barbara Davis Center for Diabetes at the University of Colorado, and observed outpatient participants over three days while they wore the AP system.

Dr. Levy, who has type 1 diabetes herself, says that if the system is approved by the U.S. Food and Drug Administration (FDA), it is likely to be used widely because it is user-friendly and regulates only a single hormone: insulin. Other, more complex systems are currently under development.

“The ultimate goal of this upcoming study is to establish the safety and efficacy of the InControl AP system for FDA approval and accelerate its introduction to the market so patients can start using the system on their own,” says Dr. Levy.

Advances in Movement Disorders

This annual symposium will provide a comprehensive update on diagnostic and treatment approaches. To learn more, visit www.mssm.edu/cme/courses, email cme@mssm.edu, or call the Office of CME at 212-731-7950.

Sunday, April 3, 8:15 am – 5 pm
The Mount Sinai Hospital Campus
Goldwurm Auditorium

Developmental and Regenerative Biology Seminar Series

Natalia B. Ivanova, PhD, Associate Professor, Genetics, Yale Stem Cell Center, Yale University, presents “Functional Determinants of the Primed Pluripotent State.”

Thursday, March 24
Noon – 1 pm
The Mount Sinai Hospital Campus
Annenberg 25-51

Grand Rounds / Institute for Advanced Medicine: HIV

Georgina Osorio, MD, MPH, Assistant Professor, Medicine (Infectious Diseases); and Antonio E. Urbina, MD, Attending, Medicine, Mount Sinai St. Luke’s, Mount Sinai West, present “CROI Update.”

Monday, March 28
Noon – 1 pm
Mount Sinai West
Conference Room B, Second Floor

Grand Rounds / Medicine

Stanley Yancovitz, MD, Professor, Clinical Medicine, Attending, Division of Infectious Diseases, Mount Sinai Beth Israel, presents “Zika and Other Emerging Arbovirus Infections.”

Tuesday, March 29
8:30 – 9:30 am
Mount Sinai Beth Israel
Podell Auditorium, Bernstein Pavilion

Grand Rounds / Population Health Science and Policy

Laura E. Bothwell, PhD, MA, Research Fellow, Department of Medicine (Pharmacoepidemiology and Pharmacoeconomics), Harvard Medical School, Brigham and Women’s Hospital, presents “The History of Race in Randomized Controlled Trials: Scientific, Ethical, and Political Fluctuations.”

Tuesday, April 5
1 – 2 pm
The Mount Sinai Hospital Campus
Goldwurm Auditorium

Health and Safety for Health Care Workers

The 37th Annual Scientific Meeting on Occupational Safety and Health for Health Care Workers will examine the latest research and feature David Michaels, MD, Director, Occupational Safety and Health Administration, and John Howard, MD, Director, National Institute for Occupational Safety and Health, who will give keynote addresses. Additionally, Roberto Lucchini, MD, Professor, Preventive Medicine, and Medicine (Pulmonary, Critical Care and Sleep Medicine), and Madelynn Azar-Cavanagh, MD, MPH, FACOEM, Associate Professor, Preventive Medicine, will present at the conference. Other presentations will focus on respiratory protection, safe patient handling, safe staffing, and the new challenges of emerging infectious diseases.

This conference is organized by the New York/New Jersey Education and Research Center, a consortium of academic institutions in the region that provides education, training, and research in occupational safety and health.

For more information, and to register, visit http://ophp.sph.rutgers.edu/nynjerc/37th_Agenda.html.
Registration fee is \$35 (\$10 for students).

Friday, April 1
8:30 am – 5 pm
The Mount Sinai Hospital Campus
Hess Center, Davis Auditorium

Announcement

53rd Bernard H. Eliasberg Memorial Lecture

Richard P. Dutton, MD, Chief Quality Officer, United States Anesthesia Partners, presents “Quality in Anesthesiology.” *The 53rd Bernard H. Eliasberg Memorial Lecture is sponsored by the Department of Anesthesiology.*

Wednesday, April 6
7 – 8 am
Icahn School of Medicine at Mount Sinai
Annenberg 13-01



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