



**Mount
Sinai**

inside

A PUBLICATION OF THE MOUNT SINAI HEALTH SYSTEM

September 12 - 25, 2016

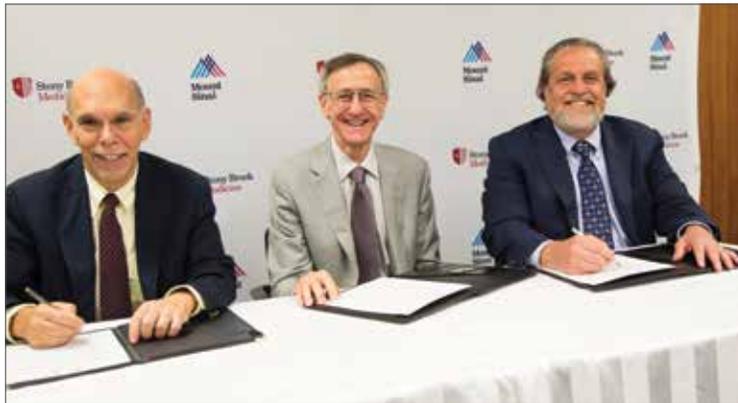
Mount Sinai and Stony Brook Form an Affiliation, Building on Strengths in Research and Education

The Icahn School of Medicine at Mount Sinai and the Stony Brook University School of Medicine have entered into an affiliation agreement that will build on a shared “culture of innovation” to enrich academic medicine programs and pursue breakthroughs in treating and understanding disease.

“Mount Sinai and Stony Brook bring unique strengths to this partnership,” says Kenneth L. Davis, MD, President and Chief Executive Officer of the Mount Sinai Health System.

“Together we are committed to finding new ways to enhance academics and clinical care.”

The most important advantage of the affiliation, which was signed on



The agreement was signed by, from left: Kenneth L. Davis, MD, President and Chief Executive Officer, Mount Sinai Health System; Kenneth Kaushansky, MD, Dean of the Stony Brook University School of Medicine; and 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.

Thursday, August 11, is that the two institutions complement each other so well, says Eric Nestler, MD, PhD, Dean for Academic and Scientific Affairs, Nash Family Professor of Neuroscience, and Director of The Friedman Brain Institute at the Icahn School of Medicine at Mount Sinai.

“Mount Sinai is one of the largest health systems and research institutions in the world, yet we are a free-standing medical center. Stony Brook Medical School is part of a large university with

world-renowned programs in the physical sciences, mathematics, and computer science,” Dr. Nestler says. “There are numerous areas where the combined strengths of our faculty will enable new

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Addressing Health Challenges Fifteen Years After 9/11



Adriana Feder, MD, center, with Leah Cahn, LMSW, Clinical Social Worker, left, and Olivia Diab, Clinical Research Coordinator.

Fifteen years after the destruction of the World Trade Center, many first responders continue to grapple with health issues stemming from their work at Ground Zero, including those who report symptoms of posttraumatic stress disorder (PTSD).

In a recently published study in the *Journal of Psychiatric Research*, researchers led by Adriana Feder, MD, Associate Professor of Psychiatry at the Icahn School of Medicine at Mount Sinai, found that police responders, who had more training and preparedness for disaster response, continued to maintain lower rates of elevated PTSD symptoms than

construction workers or other “nontraditional” responders. Dr. Feder also serves as Associate Director for Research at the World Trade Center Mental Health Program at Mount Sinai.

The latest research on PTSD, along with other studies examining the health challenges faced by 9/11 responders and survivors, will be presented at a special symposium hosted by Mount Sinai on Wednesday, September 14, at the New York Academy of Medicine. (See details on page 4.) There, participants will hear from experts who are treating patients for upper respiratory complications, asthma, gastroesophageal reflux disease, various

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Mount Sinai Study Advances the Use of a New Implanted Device to Treat Opioid Addiction

The U.S. Food and Drug Administration, following a nationwide clinical study by researchers at the Mount Sinai Health System, recently approved the first implantable form of buprenorphine—a drug used to treat opioid addiction. The implant, called Probuphine, delivers low-level doses of the medication for six months after being inserted under the skin on the inside of a patient's upper arm.



Richard N. Rosenthal, MD

The clinical trial, led by Richard N. Rosenthal, MD, Medical Director of Addiction Psychiatry at Mount Sinai Behavioral Health System, found that more patients using the implant device—consisting of four one-inch-long rods—did not relapse, compared with those who took the buprenorphine orally, once a day. The results were based on a sample of 177 participants at 21 sites in the United States.

Opioids are a class of drugs that relieve pain and include oxycodone, hydrocodone, codeine, morphine, and fentanyl. The repeated use of opioids increases a person's tolerance.

Expanding the use and availability of medication-assisted treatment options such as Probuphine is an important component of the federal government's goal to reduce prescription opioid and heroin-related overdose, death, and dependence in the midst of a national epidemic.

The number of prescriptions filled for opioid pain relievers has increased dramatically over the years. According to the U.S. Centers for Disease Control and Prevention, more people died from drug overdoses in 2014—primarily prescription opioids and heroin—than in any other year on record.

By providing continuous dosing, the new implant eliminates a frequent problem among opioid addicts who do not take

recovery medication as instructed by their doctors, which leads to relapse. Additionally, the implant eliminates the drug's accidental use by children. Probuphine is recommended as part of a comprehensive treatment plan that includes counseling and psychosocial support.

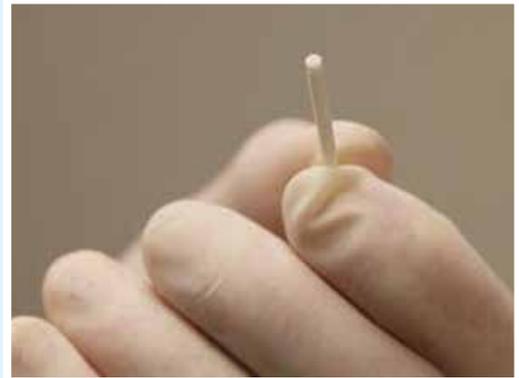
“The opioid epidemic has such a negative impact on people and their families, as well as our culture and economy,” says Dr. Rosenthal, who is also a Professor of Psychiatry at the Icahn School of Medicine at Mount Sinai. “There's a stigma. People think it's bad behavior and that you should pull yourself up by your bootstraps. But painkiller addiction is a brain disease that needs medical treatment. We need more medications to treat this disorder.”

According to the National Institute of Drug Abuse of the National Institutes of Health, medicine given as a maintenance treatment in combination with recovery support is more effective than short-term detoxification programs aimed at abstinence.

“There's probably a large untapped population of people being seen in primary

“There's probably a large untapped population of people being seen in primary care and elsewhere for whom this medication may be an excellent solution.”

– Richard N. Rosenthal, MD



After being inserted into a patient's upper arm, this implantable device delivers low-level doses of buprenorphine for six months.

care and elsewhere for whom this medication may be an excellent solution,” says Dr. Rosenthal. He adds that additional research is needed among broader populations of patients and to address the rate and predictors of relapse after the six months of implant use is discontinued.

Through the Center for Addictive Disorders and The Friedman Brain Institute, the Mount Sinai Health System treats at least 8,000 drug addiction patients annually, of whom 6,500 receive help for opioid addiction.

Dubin Breast Center Patients Receive Support in Preserving Their Hair During Chemotherapy

Joanna Ng was determined not to lose her hair after she began receiving chemotherapy treatments for breast cancer last spring.

“I cut my hair short a long time ago, and it took so long to grow back I vowed I would never do it again if I could help it. But mostly, I didn’t want my family to see any hair loss,” says Ms. Ng, 27, who works for a global brokerage firm.

As a patient at the Dubin Breast Center of the Tisch Cancer Institute, Ms. Ng learned about an increasingly popular therapy known as cold cap or scalp cooling, which has been shown to preserve hair in approximately 70 percent of patients. Fortunately for Ms. Ng, the Dubin Breast Center, located at The Mount Sinai Hospital, was expanding its cold cap program and helped cover the cost of the therapy through a philanthropic grant from the Marisa Acocella Marchetto Foundation.

According to Ms. Ng’s physician, Julie Fasano, MD, Assistant Professor, Medicine (Hematology and Medical Oncology), Icahn School of Medicine at Mount Sinai, “Breast cancer is a life-transforming diagnosis, and the anticipated side effect of chemotherapy-induced hair loss can be overwhelming. Cold caps can help patients dramatically reduce hair loss.”

Still, she says, by working to constrict blood vessels beneath the scalp so that chemotherapeutic agents cannot reach hair follicles, the unintended consequence may be that the medicine is prevented from attacking the cancer cells. “Multiple trials in Europe show this is not the case, but I’m very open with my patients about it,” says Dr. Fasano.

The decision to use cold cap therapy “takes 100 percent commitment from the patient and must begin on the first day of chemotherapy,” says Raina Caridi, Administrative Director of the Dubin Breast Center, who manages the cold cap program. “It can cause headaches and chills.”

Ms. Ng used a brand known as Penguin Cold Cap, where pliable caps that are filled with a gel that is chilled to around -40 degrees Fahrenheit are strapped tightly around the head leaving no room for air pockets. Because these caps must be applied 50 minutes or so before infusion and remain in place for two to four hours afterward, a long day of chemo is made even longer. Additionally, the cold caps must be replaced every half-hour to maintain a constant temperature.



Sara Davidoff, RN, left, with patient Joanna Ng, who has routinely worn a cold cap to prevent hair loss during chemotherapy treatments.

“Breast cancer is a life-transforming diagnosis, and the anticipated side effect of chemotherapy-induced hair loss can be overwhelming. Cold caps can help patients dramatically reduce hair loss.” – Julie Fasano, MD

With the support of her mother and a professional “capper” whom she hired to assist with the roughly 14 cap changes she needed each session, Ms. Ng was able to persevere despite the inconvenience.

At the Dubin Breast Center, the caps are stored in a special biomedical freezer that was donated by the Rapunzel Project, a nonprofit organization dedicated to helping chemotherapy patients keep their hair during treatment.

“My hair loss has been very minimal, and most people say they honestly can’t tell that anything is wrong,” says Ms. Ng. “I’ve had some thinning at the ears, but if anything, it seems as if I am following the trend of shaving the sides of my head.”

To ensure success, Ms. Ng’s hair care regimen remained restricted for a few months following chemotherapy as well, when she had minimal washing, little to no combing, and was not able to use hair ties or clips.

This fall, the Dubin Breast Center, and the breast cancer treatment centers at Mount Sinai Beth Israel and Mount Sinai West, will roll out a new cold cap system from Dignitana, a Swedish medical technology company that markets a continuous scalp cooling system that recently received approval from the U.S. Food and Drug Administration.

➤ Mount Sinai and Stony Brook Form an Affiliation *(continued from page 1)*

directions for research and education on both campuses.”

Dr. Nestler says a Request for Applications, which provides an initial \$400,000 to fund pilot projects across the institutions, has been released to both faculties.

The affiliation is overseen by Dr. Nestler and 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. At Stony Brook, the lead will be taken by Kenneth Kaushansky, MD, Senior Vice President for Health Sciences and Dean of the Stony Brook University School of Medicine, and Lina Obeid, MD, Dean for Research and Vice Dean for Scientific Affairs.

The new relationship with Stony Brook is in the same spirit as the successful affiliation that Mount Sinai formed in 2013 with the Rensselaer Polytechnic Institute (RPI). “We have learned through our successful relationship with Rensselaer the power of aligning great institutions that have complementary strengths in order to synergize collaborative success,” says Scott Friedman, MD, Fishberg Professor of Medicine and Dean for Therapeutic Discovery at the Icahn School of Medicine at Mount Sinai.

In that affiliation, Mount Sinai and RPI jointly participate in major institutional grants, including the Children’s Health Exposure Analysis Resource. The institutions share educational programs and coursework in experimental design and entrepreneurship, and they hold joint biannual scientific symposia, including an upcoming program focused on the interface between cancer biology and technology, taking place on Tuesday, September 20, from noon - 5 pm, at Davis Auditorium.

In the new affiliation, Mount Sinai and Stony Brook will develop joint graduate and medical educational programs, building on the master’s and doctoral programs at each institution. Students will have the opportunity to take classes on both campuses, allowing them to learn new techniques and expand their learning capacity. Mount Sinai and Stony Brook will also build summer programs for undergraduate, graduate, and postgraduate students.

“The partnership will revolutionize medical research by combining expertise from both premier medical schools,” Dr. Charney says. “Both institutions are committed to a culture of innovation in research and education, and we look forward to working with Stony Brook to help make exciting breakthroughs in health care.”

➤ Addressing Health Challenges Fifteen Years After 9/11 *(continued from page 1)*

cancers, and other conditions stemming from their exposure to at least 70 carcinogens when the Twin Towers collapsed.

As one of five Clinical Centers of Excellence (CCEs) established through the World Trade Center Health Program, specialists at the Icahn School of Medicine at Mount Sinai have diagnosed and treated more than 20,000 first responders and survivors for a variety of illnesses since the earliest days following 9/11.

In the most recent study on PTSD, Dr. Feder worked with co-principal investigators Robert Pietrzak, PhD, MPH, and Steven Southwick, MD, from the Yale School of Medicine on a web-based survey that was completed by more than 4,000 rescue and recovery workers an average of 12 years after the 9/11 attacks. The workers’ responses were studied in conjunction with longitudinal data that was collected during their earlier health monitoring visits to one of five CCEs.

“Cumulative stressors, including the severity of exposure at Ground Zero, additional traumas or difficult life events in the years following 9/11, and other medical conditions developed after 9/11 all added to the severity of a responder’s PTSD symptoms over time,” says Dr. Feder. Two potentially protective factors that might contribute to a responder’s resilience, she adds, were “the ability to maintain a higher level of social support and a sense of purpose in life.” Conversely, avoidance in dealing with the trauma of 9/11 was associated with persistent PTSD symptoms over time.

Another ongoing study by Dr. Feder’s team—in collaboration with Icahn School of Medicine at Mount Sinai researchers Rachel

Yehuda, PhD, Professor of Psychiatry, and Neuroscience, and Nikolaos Daskalakis, MD, PhD, Assistant Professor of Psychiatry—is investigating potential blood biomarkers of PTSD symptom severity and resilience. This includes examining stress hormone levels and potential differences in gene expression.

World Trade Center Health Program: 15 Years Beyond 9/11

The Mount Sinai Selikoff Centers for Occupational Health, World Trade Center Health Program Clinical Center of Excellence presents “Current Challenges and Research Directions.”

Keynote speaker: John Howard, MD, JD, MPH, Administrator of the World Trade Center Health Program and Director of the National Institute for Occupational Safety and Health. Speakers from the Icahn School of Medicine at Mount Sinai: Michael A. Crane, MD, MPH; Laura E. Crowley, MD; Adriana Feder, MD; Roberto Lucchini, MD; Mary Ann McLaughlin, MD, MPH; Emanuela Taioli, MD, PhD; and Juan Wisnivesky, MD, DrPH. Speakers also include: Evelyn Bromet, PhD (Stony Brook School of Medicine); David J. Prezant, MD, (Fire Department of the City of New York); and Joan Reibman, MD, (NYU School of Medicine).

Wednesday, September 14
8 am – 3:30 pm (Breakfast, 8 – 9 am)
New York Academy of Medicine, 1216 Fifth Avenue
(at 103rd Street)

For more information and to register, visit <http://events.mountsinaihealth.org/event/WTCHPSymposium/>.



Around the Health System

Providing Courtside Medical Care at the US Open



Members of the Mount Sinai Health System's Leni and Peter W. May Department of Orthopaedics were onsite in Flushing Meadows, Queens, providing medical care to tennis players competing at the recent 2016 US Open. Also onsite were Mount Sinai Health System radiologists who used advanced image-

viewing workstations to ensure quicker diagnoses of patient injuries. As the exclusive provider of medical services to the United States Tennis Association for the fourth consecutive year, Mount Sinai also develops policies around injury prevention and conducts educational outreach to promote the health benefits of tennis.



Physicians from Mount Sinai's Department of Orthopaedics who provided care included, from left: James N. Gladstone, MD, Associate Professor, Orthopaedic Surgery, and Co-Chief of Sports Medicine at The Mount Sinai Hospital; Leesa M. Galatz, MD, Mount Sinai Health System Chair and Mount Sinai Professor in Orthopaedics; Melissa D. Leber, MD, Assistant Professor, Emergency Medicine, and Orthopaedic Surgery; Alexis Chiang Colvin, MD, Chief Medical Officer of the U.S. Tennis Association, and Associate Professor of Sports Medicine; and Shawn Anthony, MD, MBA, Assistant Professor of Orthopaedic Surgery.

Top: Leesa M. Galatz, MD, left, offered medical advice on preventing shoulder injuries in a videotaped interview with USTA host Shawna Ryan at the US Open. Bottom: Spectators watched a match with the Mount Sinai logo on prominent display.

Medical Student Competes in Rio

A day after competing at the Olympics in Rio de Janeiro, Chierika Ukogu arrived at the Icahn School of Medicine at Mount Sinai to begin her medical training. Ms. Ukogu, whose parents immigrated to the United States from Nigeria, participated in the women's single scull rowing event for the Nigerian Olympic team. She did not win a medal, but she did rank among the top finishers. A native of Philadelphia, Ms. Ukogu took up rowing in high school and was a standout rower at Stanford University. She postponed medical school for two years to train for the Olympics, while also working at the Hospital of the University of Pennsylvania helping pregnant women. Ms. Ukogu says spreading the word about the importance of competitive sports is her way of inspiring others, and she hopes to continue training and competing. She is considering trying out for the 2020 Olympics in Tokyo.



Announcements

7th Annual Postdoctoral Symposium

The event theme, “Industry: Beyond the Bench,” will feature keynote speaker Lana Skirboll, PhD, Vice President of Academic and Scientific Affairs at Sanofi, who has served as Director of Science Policy at the National Institutes of Health; and Joanne Kamens, PhD, Executive Director of Addgene. Both scientists will discuss their paths into non-academic careers. Activities include a panel discussion featuring experts in the biotech and pharmaceuticals industries, among them, Robert DeVita, PhD, Professor of Pharmacology and Systems Therapeutics, and Structural and Chemical Biology, Icahn School of Medicine at Mount Sinai, who has more than 25 years of industry experience. Additionally, the Robin Chemers Neustein Postdoctoral Fellowship Award will be presented, and the event will conclude with a two-hour networking reception.

To view the program and to register, visit:
<https://www.surveymonkey.com/r/N59LBYG>.

Friday, September 23

8:30 am – 7 pm

**Hess Center for Science and Medicine
Davis Auditorium**

Prostate Cancer Awareness Month

The Department of Urology is sponsoring a Men’s Health Event during Prostate Cancer Awareness Month. Stop by to meet physicians and staff, who will provide free, private prostate-cancer risk consultations onsite and answer questions about prostate cancer, men’s health, and the role of diet and exercise in preventing and managing disease. A representative from New York Sports Club will offer tips on exercise routines and discounts on gym memberships.

Friday, September 23

10 am - 2:30 pm

**The Mount Sinai Hospital Campus
Guggenheim Pavilion Atrium**

3rd Annual TeamCindy 5K Run for Research

Join the Mount Sinai Health System Department of Neurosurgery as it supports the Brain Aneurysm Foundation and its TeamCindy Chair of Research initiative to promote early detection of brain aneurysms. For information, email samantha.bright@mountsinai.org. To register or join the Mount Sinai team, visit www.teamcindy.org. Walkers are also welcome.

Saturday, September 17

9 am (Day-Of Registration/Package Pick-Up)

10 am (5K Run/Walk Begins)

Riverside Park, 103rd Street Entrance

Mount Sinai Transformation update

The final phase of the opening of the new Ambulatory Pavilion at Mount Sinai Queens is approaching.

Six new operating (OR) suites at Mount Sinai Queens are set to open later in September. The OR suites will include private presurgical rooms, a large recovery room, and a comfortable waiting area. In addition, an interventional radiology suite is expected to open in November. In this suite, interventional radiologists will be able to perform minimally invasive procedures to diagnose and treat a wide range of conditions without the need for surgery. Mount Sinai Queens continues to upgrade its infrastructure with new entrances, an expanded ambulance ramp, and service yard.

Save the Date!

Icahn School of Medicine at Mount Sinai presents:

5th Annual SINAInnovations

Leading a New Era of Discovery

Theme: Therapeutic Discovery

Email: Sinainnovations@mssm.edu

<http://icahn.mssm.edu/about/sinainnovations>

Tuesday, October 25 – Wednesday, October 26, Stern Auditorium

1st Annual SINA/MedMaker Challenge

Creating Novel Technology Solutions for Health Care

Theme: Pain & Fatigue

A 48-hour health-related challenge involving multidisciplinary teams exploring novel solutions for the management, monitoring, and/or treatment of pain and fatigue.

Email: sinaimedmaker@mssm.edu

<http://icahn.mssm.edu/about/sinainnovations/sinaimedmaker>

Friday, October 21 – Sunday, October 23, Annenberg West Lobby

4th Annual Trainee Forum and Networking Reception

(including the 2nd Annual Young Innovators Pitch Competition)

<http://icahn.mssm.edu/about/sinainnovations/networking>

Tuesday, October 25, Hess Center for Science and Medicine

#sinaimedmaker

#sinainnovations



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