



**Mount  
Sinai**

# inside

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## Marta Filizola, PhD, Named Dean of Graduate School

Marta Filizola, PhD, an expert in computational biophysics, has been named Dean of the Graduate School of Biomedical Sciences at the Icahn School of Medicine at Mount Sinai. Dr. Filizola's appointment begins officially on May 1.

As the new Dean, Dr. Filizola says she plans to fully integrate quantitative methods, immersive learning strategies, and digital technologies into the current biomedical education model and to foster collaboration among disciplines to maximize scientific innovation.

Recognized as an innovative researcher and a strong adviser and mentor to students and trainees at all levels, Dr. Filizola will oversee the academic and



Marta Filizola, PhD

administrative functions of all PhD and master's programs, as well as the Office of Postdoctoral Affairs.

"Our goal is to empower students with the skills they need to make a difference in today's world," says Dr. Filizola, Professor of Structural and Chemical Biology with secondary appointments in Neuroscience, and Pharmacology and Systems Therapeutics.

"I'm humbled and really excited by this opportunity," she says. "I've been a very active researcher throughout my career, and I think education is equally important. Mount Sinai is in the best position to revolutionize graduate education and to excel in terms of innovation and quality."

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## Mount Sinai Researchers Identify New Targets in the Treatment of Influenza

Working with a team of global research institutes, scientists at the Icahn School of Medicine at Mount Sinai have marshaled the resources of big data to identify important new targets that could ultimately change the way influenza is treated. By integrating publicly available "omics" databases, the researchers identified more than two dozen previously unrecognized host proteins and several genes involved in the spread of influenza viruses.

Finding alternative targets that would stop the spread of influenza—particularly type A, which is often linked to epidemics and, at times, worldwide pandemics—is a global health concern. Traditionally, physicians have treated the flu with drugs that directly block the influenza virus proteins.



From left: Study authors Adolfo Garcia-Sastre, PhD, Professor in the Department of Microbiology at the Icahn School of Medicine at Mount Sinai, and Shashank Tripathi, PhD, Postdoctoral Research Fellow

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## › Marta Filizola, PhD, Named Dean of Graduate School *(continued from page 1)*

Dr. Filizola plans to incorporate more computational thinking into the Graduate School program. This is made possible by Mount Sinai's significant investment in computational resources over the past five years and the recruitment of both faculty and students with backgrounds in math, physics, chemistry, computer science, and engineering.

"My vision is to create programs at Mount Sinai that fully integrate this diverse expertise into more traditional biological approaches to make a difference in scientific discovery and in the hospital," says Dr. Filizola. She has trained students to be fluent in both biological and quantitative science.

The Icahn School of Medicine is in a unique position to prepare students for a wide range of careers, including those with nonacademic trajectories, she says. "We need to train our students so they can succeed in whichever career path they choose, whether in academia, industry, or even finance should they decide to do that."

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*"Mount Sinai is in the best position to revolutionize graduate education and to excel in terms of innovation and quality."*

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— Marta Filizola, PhD

As Dean, Dr. Filizola will continue to lead her own research programs that focus on developing painkillers that are less addictive than other opioids and novel therapeutics for the treatment of renal, hematologic,

neoplastic, bone, and fibrotic diseases. Her laboratory is active in five research projects funded by the National Institute on Drug Abuse, the National Institute of Mental Health, and the National Heart, Lung, and Blood Institute.

As one of the few female investigators specializing in computational biophysics, Dr. Filizola is extremely motivated to increase the participation of women and other minorities in quantitative sciences.

Prior to her new role as Dean, she served as Co-Director of the Structural/Chemical Biology and Molecular Design Program in the Graduate School of Biomedical Sciences and as Co-Director of the Biophysics and Systems Pharmacology Graduate Program.

Dr. Filizola completed her postdoctoral work in computational biophysics at the Molecular Research Institute in Mountain View, California, and at the Icahn School of Medicine.

## Inaugural Master's Commencement Ceremony

The Icahn School of Medicine at Mount Sinai will hold an inaugural Master's Commencement ceremony on Wednesday, May 11, in recognition of the enormous growth and importance of master's programs now offered by the Graduate School of Biomedical Sciences.

The ceremony, to be held in David Geffen Hall at Lincoln Center starting at 6 pm, will honor the accomplishments of more than 100 students who will be receiving their master's degrees in Public Health, Biostatistics, Health Care Delivery Leadership, Clinical Research, Genetic Counseling, and Biomedical Science.

"Providing graduate training in areas that focus on the health of populations and communities through clinical care and research, education, and management and improvement, is a

vital part of the Icahn School of Medicine's mission," says 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.

"The quality and breadth of our clinical, educational, and research programs have never been greater," says Dr. Charney. "Our master's degree students are becoming experts in their fields, and they will shape the future of these essential disciplines. This inaugural commencement will enable us to celebrate their accomplishments."

Commencement for MD, PhD, and dual-degree students will take place at Lincoln Center on Friday, May 13. The annual Awards Ceremony and Dean's Reception, to be held this year on Thursday, May 12, will honor all Icahn School of Medicine graduates.

*"The quality and breadth of our clinical, educational, and research programs have never been greater."* — Dennis S. Charney, MD

# New Diabetes Center of Excellence Opens

A reception celebrating the opening of the Mount Sinai St. Luke's Diabetes Center of Excellence, located at 1111 Amsterdam Avenue, was held on Thursday, January 21. The new facility includes spacious outpatient clinical areas, a dedicated space for a weight loss program, and proximity to the headquarters, clinical research unit, and laboratories of the Division of Endocrinology, Diabetes and Bone Disease at Mount Sinai St. Luke's and Mount Sinai West. The Center will serve a diverse population of patients on Manhattan's Upper West Side and in Harlem.



From left: Arthur Gianelli, President, Mount Sinai St. Luke's; Jeanine Albu, MD; and Dennis S. Charney, MD

The new entity joins existing diabetes centers of excellence at The Mount Sinai Hospital and Mount Sinai Beth Israel, which comprise the Mount Sinai Health System Clinical Diabetes Institute.

The Center has eight full-time endocrinologists, three certified diabetes educators, a registered dietitian, an exercise physiologist, and research staff. It provides services for type 1 diabetes, insulin pumps, continuous glucose monitoring, type 2 diabetes management of glucose control and complications, educational workshops, and pre-diabetes management.

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, told guests, "Diabetes and obesity research and clinical care are major priorities for our School of Medicine and our Health System. Our goal is nothing less than becoming one of the very best research and clinical programs in diabetes and obesity in the world."

Jeanine Albu, MD, Director of the Center, said, "In addition to providing outstanding care for patients, we will conduct clinical research trials and offer specialized, unique equipment for measuring energy expenditure and body composition." Dr. Albu also is Chief of the Division of Endocrinology, Diabetes and Bone Disease at Mount Sinai St. Luke's and Mount Sinai West.

## ➤ Mount Sinai Researchers Identify New Targets in the Treatment of Influenza *(continued from page 1)*

The drawback to this therapy is that the influenza virus can mutate, making it drug resistant. Targeting host proteins is an attractive approach because they are considered immutable and thereby less likely to lead to drug resistance.

"What we're trying to accomplish through our work is inhibit the influenza virus by targeting host factors within the body that the virus requires for replication," says Adolfo García-Sastre, PhD, Professor in the Department of Microbiology at the Icahn School of Medicine at Mount Sinai and co-senior author of the global team's study published in the December 9, 2015, issue of *Cell Host & Microbe*. "It's a novel approach that we hope will lead to a new generation of viral inhibitors."

According to Dr. García-Sastre, who is also Director of the Global Health and Emerging Pathogens Institute at the Icahn School of Medicine at Mount Sinai, more work is required to know which of the new host targets will yield the greatest results with the least toxicity. The study showed that blocking one pivotal host protein, UBR4, reduced influenza type A replication and pathogenesis in human cells and mice.

"We've already established proof of concept with HIV, where an inhibitor targeting a host protein that's a co-receptor of HIV is being used to effectively treat the disease," observes Dr. García-Sastre.

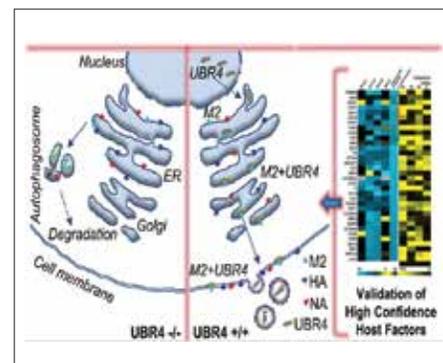
In the case of viral influenza, he says, the goal is to collaborate with pharmaceutical companies to develop the most promising

host targets into a powerful new class of anti-influenza drugs. "Ideally, I'd like to come up with an inhibitor that targets a host factor in the upper respiratory tract that's used by multiple respiratory viruses, not just influenza," he says.

To further advance discovery work around influenza, the Mount Sinai researchers created a website with integrated data that reflect influenza-host interactions. The open-access Web portal ([www.metascape.org/IAV](http://www.metascape.org/IAV)) enables users to customize queries and provides analysis tools to find host proteins likely to play a role in influenza infection.

Dr. García-Sastre says the website is another example of how new technologies that generate a wealth of large data sets are opening the door to once obscure biochemical networks and pathways that influence diseases such as influenza.

"Big data is no longer just a catchphrase," he says. "It is a real tool to help scientists address the world's most serious public health threats."



Using big data, researchers were able to identify one host protein, UBR4, as essential for viral budding and pathogenesis in influenza A.

## Around the Health System

### Dedication Ceremony for Bipolar Disorder Center

Mount Sinai Beth Israel's Department of Psychiatry recently changed the name of its Family Center for Bipolar Disorder to the Richard and Cynthia Zirinsky Center for Bipolar Disorder. The renaming honors Richard Zirinsky, Cynthia Zirinsky's late husband, and recognizes the contributions of Mrs. Zirinsky, who has generously supported the Center since its inception in 2007. A reception and dedication ceremony was held recently for Mrs. Zirinsky, her family, and other Center benefactors. An outpatient clinic that treats bipolar-spectrum patients, the Center facilitates open communication between patients and their loved ones throughout the course of treatment.



From left: Wayne K. Goodman, MD, Professor and Chair, Department of Psychiatry, Icahn School of Medicine at Mount Sinai; Cynthia Zirinsky; and Igor Galynker, MD, PhD, Director, Richard and Cynthia Zirinsky Center for Bipolar Disorder

### Celebrating Heart Health Month

More than 775 staff and visitors attended health fairs sponsored by Mount Sinai Heart on Friday, February 5, *Go Red for Women Day*<sup>®</sup>, an annual educational event that spotlights the risks of cardiovascular disease. Participants received free screenings for high blood pressure, cholesterol, weight, glucose, and peripheral vascular disease, and learned about nutrition and diet, diabetes, stress management, smoking cessation, and relaxation techniques. Other events included exercise workshops, support group meetings, and educational lectures sponsored by Women's Heart NY, a comprehensive Mount Sinai Health System heart program.

Cheyenne Hayward, RN, left, Coronary Care Unit, The Mount Sinai Hospital, checks the blood pressure of visitor Joan Innocent.



### Honoring Community Service

Prakash Krishnan, MD, Director of Endovascular Services for Mount Sinai Heart, and Assistant Professor of Medicine (Cardiology, and Radiology), at the Icahn School of Medicine at Mount Sinai, and Brad Beckstrom, Senior Director of Government and Community Affairs, Mount Sinai Health System, each received a Rev. Dr. Martin Luther King, Jr. Legacy Award from Clergy With A Purpose on Sunday, January 17, at St. Paul Baptist Church in Harlem. Dr. Krishnan was



Prakash Krishnan, MD, right, receives the Rev. Dr. Martin Luther King, Jr. Legacy Award from the Rev. V. DuWayne Battle, Pastor, St. Paul Baptist Church.

recognized for actively screening and treating patients at high risk for peripheral artery disease in the East Harlem community.

Mr. Beckstrom was honored for creating a dialogue with community organizations and for his work with New York Common Pantry, which aims to reduce hunger in New York City. Clergy With A Purpose is a nonprofit organization that addresses a variety of community issues primarily in East and Central Harlem.

# Study Shows Benefits of Music Therapy for Patients

Music therapy used in conjunction with traditional pulmonary rehabilitation may be an effective method to manage chronic obstructive pulmonary disease (COPD) and other moderate to advanced lung diseases, according to the results of a clinical trial published recently in *Respiratory Medicine* by Mount Sinai Beth Israel researchers.

“Patients in the clinical trial who received both music therapy and standard rehabilitation saw an improvement in symptoms, psychological well-being, and quality of life compared to a control group of patients receiving traditional rehabilitation alone,” says Joanne Loewy, DA, LCAT, MT-BC, Director of the Louis Armstrong Center for Music and Medicine at Mount Sinai Beth Israel.

The clinical trial, which spanned five years, evaluated a group of 98 individuals between 44 and 88 years of age diagnosed with Stages I, II, and III COPD and other respiratory diseases that result in chronic airflow problems.

All patients received standard pulmonary rehabilitation care—evaluation, education, instruction in respiratory techniques, and exercise training. One group, however, was also enrolled in a comprehensive music therapy program, in which they played wind instruments, learned to synchronize their breathing to the rhythm of live music, and participated in singing exercises that incorporated breath-control techniques by working with music therapists. The group participating in the music therapy program showed improvement in scores that measured depression; their perception of dyspnea, or shortness of breath; and quality of life factors, such as fatigue.

The clinical trial integrated the practices of Mount Sinai Beth Israel’s Alice Lawrence Center for Health and Rehabilitation and the Louis Armstrong Center for Music and Medicine, which has been at the forefront of music therapy since 1994.

“To our knowledge, this study is the first of its kind combining a multi-modal intervention,” says lead study author Bernardo Canga, MMT, Consultant, Technology and Research, at the Louis Armstrong Center. The research team also included Jonathan Raskin, MD, Medical Director, Alice Lawrence Center for Health and Rehabilitation, and Assistant Clinical Professor, Medicine (Pulmonary, Critical Care and Sleep Medicine), Icahn School of Medicine at Mount Sinai; Ronit Azoulay, MA, LCAT, MT-BC, Research Consultant; and eight certified music therapists.

Commenting on the results, Dr. Raskin says, “Music therapy has emerged as an essential component to an integrated approach in the management of chronic respiratory disease that should be incorporated into pulmonary rehabilitation care.”

Dr. Loewy sees the vast potential of music therapy in helping patients with other conditions. She is now leading a new study that will examine the role music may have on helping certain stroke patients regain their speaking and language skills. “In the growing effort to understand health care as a distinctly integrative process,” says Dr. Loewy, “the care of the chronically ill is moving toward methods that aim to preserve and enhance the quality of life of our patients and their daily living activities.”



Patients play wind instruments with Mount Sinai staff during a recent Advances in Respiration (AIR) music therapy session. From left: Daniel Scheingart, NYU Music Therapy Intern, Louis Armstrong Center for Music and Medicine; patient Jack Marks; Joanne Loewy, DA, LCAT, MT-BC; patient Joseph Regan, Jr.; Megan Wasilik, Office Manager, Department of Rehabilitation Medicine; and patient Anne Kasner. Wen Chang-Lit, MA, LCAT, MT-BC (not pictured) directs the AIR sessions, which also include breathing exercises and singing, all in an effort to improve the patients’ symptoms and well-being.

## EVENT

### Levy Library Information And Education Forum

Stop by for research demonstrations, information, and exhibits from the Levy Library.

Tuesday, March 8  
9 am – 2 pm  
The Mount Sinai Hospital Campus  
Guggenheim Atrium

#### Grand Rounds / Institute for Medical Education

Stephanie Kayden, MD, MPH, Assistant Professor, Emergency Medicine, Global Health and Population, Harvard Medical School, presents “Responding to Humanitarian Crises: Clinicians and Disaster Response.”

Wednesday, February 24  
Noon – 1 pm  
The Mount Sinai Hospital Campus  
Hess Center, Room 5-101

#### Seminar Series / Structural and Chemical Biology

Chao Zhang, PhD, Assistant Professor, Chemistry, University of Southern California, presents “Chemical Interrogation of Cell Signaling.”

Thursday, February 25  
11 am – Noon  
The Mount Sinai Hospital Campus  
Hess Center, Seminar Room B

#### Grand Rounds / Neurology

Brian H. Kopell, MD, Director, Center for Neuromodulation, presents “Topics in Deep Brain Stimulation and Parkinson’s Disease.”

Friday, February 26  
1 – 2 pm  
Mount Sinai Beth Israel  
Phillips Ambulatory Care Center, Room 5K04

#### Grand Rounds / Radiation Oncology

John P. Plastaras, MD, PhD, Associate Professor, Radiation Oncology, Chief, GI/Lymphoma Service, University of Pennsylvania Health System, presents “Modern Radiotherapy for Lymphomas in a Chemocentric World.”

Friday, March 4  
8 – 9 am  
Hess Center, Room 8-101

## March is Colorectal Cancer Awareness Month

The nurses and staff of The Mount Sinai Hospital’s Endoscopy Center are hosting an educational event about preventing colon cancer. Visitors can pick up literature and other giveaways; talk with nurses, physicians, geneticists, nutritionists, and endoscopy staff; and schedule an appointment for a screening colonoscopy. The Colon Cancer Challenge Foundation will provide a 30-ft. inflatable “Rollin’ Colon,” a walk-through educational model of a colon. For more information, visit [www.coloncancerchallenge.org](http://www.coloncancerchallenge.org) or call 212-241-6277.

Wednesday, March 2  
8:30 am – 3 pm  
The Mount Sinai  
Hospital Campus  
Guggenheim Pavilion

Sponsors include: the Colon Cancer Challenge Foundation; Dr. Henry D. Janowitz Division of Gastroenterology and the Endoscopy Center; Division of Colon and Rectal Surgery; and Ms. Devlyn Stanley, a Mount Sinai endoscopy technician, in memory of Geneva Stanley and Louis A. Stanley.

## 14th Annual Gala for Multiple Sclerosis

Support the Corinne Goldsmith Dickinson Center for Multiple Sclerosis at Mount Sinai at an evening of cocktails, dinner, and conversation with Kieran McLaughlin, the famed thoroughbred racehorse trainer who is living a full life with multiple sclerosis. Register at [philanthropy.mountsinai.org/msgala](http://philanthropy.mountsinai.org/msgala) or call 646-450-4948.

Thursday, March 3  
6 – 9 pm  
The Plaza, Grand Ballroom



## Help Save a Life

The Student Council Community Service Subcommittee at the Icahn School of Medicine at Mount Sinai and the New York Blood Center are hosting a blood drive. Walk-ins are welcomed. Appointments may be made by calling 800-933-2566. For questions about eligibility for donating blood, call 800-688-0900. ID with signature is required.

Tuesday, March 8  
10 am – 4 pm  
The Mount Sinai Hospital Campus  
Annenberg West Lobby



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