



**Mount
Sinai**

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For immediate release:

May 19, 2022

9:00 a.m. EDT

Mount Sinai Microbiome Lab Joins NIH's Accelerating Medicines Partnership

Lab will be part of a "hub" for studying role of microbiome in autoimmune diseases

New York, NY (May 19, 2022) – The National Institutes of Health (NIH) has awarded researchers at the Icahn School of Medicine at Mount Sinai a four-year grant to study the role of the human microbiome in rheumatoid arthritis, systemic lupus, and other autoimmune diseases. The grant is part of the NIH's Accelerating Medicines Partnership® Autoimmune and Immune-Mediated Diseases ([AMP® AIM](#)) program, which is designed to speed the discovery of new treatments and diagnostics. It will support the Microbiome Technology and Analytic Center Hub ([Micro-TEACH](#)), a multidisciplinary team of researchers at Icahn Mount Sinai and NYU Langone Health.

“Every day, millions of people experience the pain and suffering caused when the immune system attacks the body. A growing body of research shows that a person’s microbiome—the bacteria found in the gut and other parts of the body—may play an important role in many of these attacks,” said Jose C. Clemente, PhD, Associate Professor of Genetics and Genomic Sciences at Icahn Mount Sinai and a leader of the team receiving the award. “We hope that by joining the NIH’s AMP AIM program we can speed the development of new treatments and diagnostic markers and thus reduce the suffering experienced by patients who have autoimmune diseases.”

Dr. Clemente leads a team of researchers who use advanced experimental and computational methods to study the microbiome under healthy and disease conditions. For instance, his lab studied the role of gut bacteria in *Clostridium difficile* infections, inflammatory bowel disease, and autoimmune hepatitis.

Launched in the 2014, the [AMP program](#) is a public-private partnership between the NIH, the U.S. Food and Drug Administration (FDA), multiple biopharmaceutical and life science companies, and non-profit and other organizations. The program aims “to transform the current model for developing new diagnostics and treatments.” Other areas of research include Alzheimer’s disease, Parkinson’s disease, and schizophrenia.

AMP® AIM was started in 2021 “to deepen our understanding of the cellular and molecular interactions that lead to inflammation and autoimmune diseases.”

“We are very excited that Dr. Clemente’s team will be playing a pivotal role in this groundbreaking project,” said Alison M. Goate, DPhil, the Jean C. and James W. Crystal Professor and Chair of Genetics and Genomic Sciences at Icahn Mount Sinai. “Understanding how our microbiome interacts with our immune system is key to a better understanding of these debilitating diseases and holds promise for improved treatments in the future.”

Dr. Clemente’s team will work with researchers in the lab of Jose U. Scher, MD, the Steere-Abramson Associate Professor at NYU Langone Health. The Clemente and Scher labs have worked together for several years. Recently, they published a [study](#) on how gut bacteria may influence some cases of spondyloarthritis, a type of arthritis that attacks the joints and spine.

In this newly funded study, their teams will try to reconstruct and analyze how the microbiome may work in several autoimmune disorders, including rheumatoid arthritis, systemic lupus erythematosus, psoriasis, psoriatic arthritis, and Sjögren’s disease.

“The AMP AIM program will allow us to identify microbial features that are either shared across different autoimmune and immune conditions or unique for individual forms of these diseases,” Dr. Clemente says. “These studies could help us find more precise matches between diseases and conditions and treatments that are currently available.”

The award, titled “Micro-TeACH (Microbiome Technology and Analytic Center Hub),” will be funded by the National Institutes of Health ([AR081034](#)).

About the Mount Sinai Health System

The Mount Sinai Health System is New York City's largest academic medical system, encompassing eight hospitals, a leading medical school, and a vast network of ambulatory practices throughout the greater New York region. Mount Sinai advances medicine and health through unrivaled education and translational research and discovery to deliver care that is the safest, highest-quality, most accessible and equitable, and the best value of any health system in the nation. The Health System includes approximately 7,300 primary and specialty care physicians; 13 joint-venture ambulatory surgery centers; more than 415 ambulatory practices throughout the five boroughs of New York City, Westchester, Long Island, and Florida; and more than 30 affiliated community health centers. The Mount Sinai Hospital is ranked on U.S. News & World Report's "Honor Roll" of the top 20 U.S. hospitals and is top in the nation by specialty: No. 1 in Geriatrics and top 20 in Cardiology/Heart Surgery, Diabetes/Endocrinology, Gastroenterology/GI Surgery, Neurology/Neurosurgery, Orthopedics, Pulmonology/Lung Surgery, Rehabilitation, and Urology. New York Eye and Ear Infirmary of Mount Sinai is ranked No. 12 in Ophthalmology. Mount Sinai Kravis Children's Hospital is ranked in U.S. News & World Report’s “Best Children’s Hospitals” among the country’s best in four out of 10 pediatric specialties. The Icahn School of Medicine is one of three medical schools that have earned distinction by multiple indicators: ranked in the top 20 by U.S. News & World Report's "Best Medical Schools," aligned with a U.S. News & World Report "Honor Roll" Hospital, and No. 14 in the nation for National Institutes of Health funding. Newsweek’s “The World’s Best Smart

Hospitals” ranks The Mount Sinai Hospital as No. 1 in New York and in the top five globally, and Mount Sinai Morningside in the top 20 globally.

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