2020 Research Retreat
Department of Pharmacological Sciences
Icahn School of Medicine at Mount Sinai

September 11, 2020

PROGRAM

9:00 am	Welcoming Remarks by Dr. Ming-Ming Zhou
9:05 am	Introduction of DPS Diversity Initiative by the DPS-SPA Team
	Lab Presentations: Session Chair, Daniel Wacker
9:15 am	Xufen Yu [Jin]
9:21 am	Mariana Lemos Duarte [Devi]
9:27 am	Carolina Rodriguez Tirado [Sosa]
9:33 am	Farhana Sakloth [Zachariou]
9:39 am	Daniel Stein [Ma'ayan]
9:45 am	Michael Capper [Wacker]
9:51 am	Aneel Aggarwal
9:57 am	Wilnelly Martinez Ortiz [Zhou]
10:03 am	Michael Lazarus
10:09 am	William Marsiglia [Dar]
10:15 am	Rachel-Ann Garibsingh [Schlessinger]
10:21 am	Stacy Baker [Reddy]
10:27 am	Agata Kurowski [Walsh]
10:33 am	Mustafa Siddiq [Iyengar]
10:39 am	Chiara Campana [Sobie]
10:45 am	Davide Provasi [Filizola]
10:51 am	Roman Osman
10:57 am	Sherod Haynes [Han]
11:30 am	Meet with Dr. Erik Lium, President of MSIP
12:00 pm	Lunch Break
	Session Chair, Kathleen Jagodnik
12:30 pm	Poster Presentations
1:40 pm	Keynote: Dr. Chiara Giannarelli
2:25 pm	Closing Ceremony

Erik Lium, PhD
President, Mount Sinai Innovation Partners
Chief Commercial Innovation Officer
Mount Sinai Health System

Dr. Lium is the President of Mount Sinai Innovation Partners (MSIP), the commercialization engine of the Mount Sinai Health System. Earlier in his career, Dr. Lium held positions at the University of California, San Francisco (UCSF), including Assistant Vice Chancellor of Innovation, Technology and Alliances; Principal Investigator for the Bay Area National Science Foundation I-Corps node; and Assistant Vice Chancellor of Research. He also served as Founder and President of LabVelocity Inc., an information services company focused on accelerating research and development in the life sciences. He routinely advises venture boards, and serves on the board of several startups launched from Mount Sinai technologies.

Dr. Lium earned his PhD in Cellular, Molecular, and Biophysical Studies at Columbia University and pursued postdoctoral training at UCSF.

"Single Cell Immunophenotyping Reveals Novel Mechanisms of Human Atherosclerosis"

Chiara Giannarelli, MD, PhD
Assistant Professor, Medicine, Cardiology
Assistant Professor, Genetics and Genomic Sciences
Icahn School of Medicine at Mount Sinai

Dr. Chiara Giannarelli received her MD from the University of Pisa, Italy in 1999. She undertook residency and specialty training and completed her PhD from the University of Pisa. In 2008, she moved to the Mount Sinai School of Medicine where she completed her research training cardiovascular disease. In 2012, she was recruited as Instructor of Medicine, Cardiology and in 2014 she was promoted to Assistant Professor at the Icahn School of Medicine at Mount Sinai. She is also an Assistant Professor of Genetics and Genomic Science and she holds a Scientific Faculty Appointment at the Precision Immunology Institute. The Giannarelli laboratory integrate systems pharmacology and systems genetics with molecular biology and imaging to reveal new mechanisms of cardiovascular disease. Dr. Giannarelli first to identify the single-cell immune composition of human atherosclerosis and to identify new T cell alterations associated with clinical outcomes (i.e. stroke).

PRESENTING RESEARCH LABS

Ming-Ming Zhou, PhD
Professor & Chair
Structural and molecular mechanisms of gene transcription in chromatin in human biology and diseases.

Lakshmi Devi, PhD
Professor
Molecular mechanism and pharmacology of opiate and cannabinoid receptor activation and morphine-induced changes in synapse.

Ravi Iyengar, PhD
Professor
Director, Institute for Systems Biomedicine
Systems biology and systems pharmacology, cell signaling networks with emphasis on G protein-coupled receptor pathways.

Avi Ma'ayan, PhD
Professor
Computational systems biology, bioinformatics, data mining, data science, data integration, and software development for biomedical and biological research.

Avner Schlessinger, PhD
Associate Professor
Structural bioinformatics and structure-based drug design for membrane transporters.

Daniel Wacker, PhD
Assistant Professor
Structural studies and drug discovery for serotonin receptors and transporters.

Aneel Aggarwal, PhD
Professor
Protein-nucleic acid interactions in gene transcription and translation, and DNA repair with X-ray crystallography and other biophysical methods.

Marta Filizola, PhD
Professor
Dean for The Graduate School of Biomed Science
Structure-function correlation in molecular recognition and application of computational methods.

Jian Jin, PhD
Professor
Medicinal chemistry, chemical biology and drug discovery. Research interests: epigenetics, GPCRs and PROTACs.

Roman Osman, PhD
Professor
Molecular mechanisms of enzymatic DNA repair, receptor/ligand binding and rational drug design using molecular dynamics and simulations methods.

Eric Sobie, PhD
Professor
Mathematical modeling and quantitative investigation of cardiac physiology, and mechanisms of initiation of arrhythmias and heart failure.

Martin Walsh, PhD
Professor
Mechanisms that regulate chromatin structure through processes that recognize and establish epigenetic information necessary to modulate gene transcription.

Arvin Dar, PhD
Associate Professor
Exploring links between the regulation of drug targets and the system level properties of biological networks within cells and animals.

Ming-Hu Han, PhD
Professor
Neurophysiological mechanisms of depression and alcohol addiction in rodent models.

Michael Lazarus, PhD
Assistant Professor
Cellular mechanisms of nutrient signaling in intracellular glycosyation and autophagy with chemistry, crystallography and mass spectrometry methods.

E. Premkumar Reddy, PhD
Professor
The role of cell cycle and apoptotic genes in cancer progression and as target for the development of novel anticancer drugs.

Maria Sosa, PhD
Assistant Professor
Mechanisms of the origins and epigenetic programs of disseminated tumor cell biology.

Venetia Zachariou, PhD
Professor
We use genetic mouse models, genomic and biochemical approaches to understand epigenetic and signal transduction mechanisms underlying chronic pain, depression and addiction.

Background Image / Winner of "The 2019 Best Poster", Rachel-Ann Garibsingh, PhD Student in PTD / Schlessinger Lab

The Department of Pharmacological Sciences at Icahn School of Medicine at Mount Sinai focuses on research discovery of the biological mechanisms underlying complex physiology and pathophysiology and translating biological knowledge into new therapeutics. We study biological processes at the molecular, cellular, tissue, and organismal levels in order to understand how these processes function and how we can modulate them for therapeutic purposes. Studies involve analysis of interactions of exogenous and endogenous substances with biological systems and the development of new therapeutics based on our understanding of cellular and molecular interactions. Structural biology, molecular and systems pharmacology, and therapeutics with integrated experimental and computational approaches represent a continuum of thought and research in understanding the origins and mechanisms underlying complex diseases and how we can treat them.

The mission of the Department is to provide a nurturing environment for discovery and innovation in basic and translational biomedical research of human health and disease, and for advanced academic training for the next- generation of physicians and scientists; and to function as a scientific hub for interdisciplinary collaborations with researchers of different disciplines to solve the most challenging problems in biomedical sciences.

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For more information, please visit our websites:
https://icahn.mssm.edu/about/departments/pharmacological-sciences
https://dpsismms.org/2020-retreat/ || Password : 2020retreat

Retreat Organizers:
Avi Ma'ayan, Daniel Wacker, Carmen Davidson & Yoori Kim

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