

McGill - Douglas
Max Planck Institute
of Psychiatry



**Adversity
& Mental Health**
International Initiative

Special Seminar Series

*Epigenetic embedding of childhood adversity:
mitochondrial metabolism and neurobiology
of stress-related CNS diseases*

Carla Nasca, PhD



Blavatnik Awardee for Innovative Research, Assistant Professor, Head of Epigenetics & System Neuroscience Lab
Department of Psychiatry, Department of Neuroscience & Physiology, NYU School of Medicine, New York

FRIDAY, MAY 26, 2023
10:00 AM

WILLIAM E. STAVERT AMPHITHEATRE, DOUGLAS HALL

To join the meet the speaker session for trainees (lunch provided),
please send a message to coordinator@adversitymentalhealth.com

Carla Nasca

At NYU School of Medicine, Dr. Nasca lab is working on an innovative framework of epigenetic mechanisms of neuroplasticity in stress responses and psychiatric disorders with a new angle on mitochondrial metabolism. Key to this framework is the pivotal mitochondrial metabolite L-acetylcarnitine (LAC), which she discovered as a novel epigenetic modulator of glutamatergic function and a therapeutic target for clinical phenotypes of treatment-resistant depression linked to childhood trauma. Using the novel exosome technology, her group further showed that modulating mitochondrial metabolism of LAC is predictive of changes in other important aspects of human physiology, such as insulin resistance. Further understanding of the cellular and molecular bases of mitochondrial mediators of epigenetic function may reveal surprising insights in a complex network of biological factors contributing to the risk for stress-related diseases, including depression, PTSD, and aging ultimately leading to personalized medicine strategies.

Dr. Nasca is Head of the laboratory of Epigenetics & System Neuroscience and Assistant Professor at NYU School of Medicine in New York in the Departments of Psychiatry and Neuroscience. She joined NYU after directing her own research group at Rockefeller University where she previously trained in Neuroscience with Bruce McEwen. She also received training in Translational Neuroscience from clinical colleagues at Stanford University. Currently active grants include a Reversibility Network on Childhood Adversity Award from the National Institute of Aging (NIA), a R01 and a R56 from the National Institute on Mental Health (NIMH), a Transformative High-Risk High-Reward Falk research grant, two NARSAD Young Investigator awards. She also is a recipient of the Blavatnik Award for Innovative Research.