SPEAKER: Mauro Costa-Mattioli
Department of Neuroscience, Memory & Brain Research Center (MBRC), Baylor College of Medicine, Houston, Texas, USA

TITLE: “Translational Regulatory Mechanisms in Synaptic Plasticity and Pathological Learning”

ABSTRACT:
Information storage has a physical basis in long-lasting changes in selective circuits in the brain. An intriguing aspect of memory storage is that different types of learning are associated with either strengthening or weakening synaptic efficacy. These persistent changes in synaptic strength, specifically long-term potentiation (LTP) and long-term depression (LTD) depend on new protein synthesis at the synapse. I will focus on our most recent advance in the understanding of a key translational control mechanism that bidirectionally regulate the two major forms of synaptic plasticity (LTP and LTD) in the brain. In addition, I will discuss new evidence regarding the role of translational control in both normal and pathological learning.

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