Vendredi 28 Juin à 14h

Amphithéâtre du Neurocampus Bâtiment 462 Le Vinatier

The effects of short exposure to a high fat diet on social memory and plasticity in the prefrontal cortex: Role of oxytocin

Mouna MAROUN

Laboratory for Neurobiology of Emotions

Sagol Department of Neurobiology, Faculty of Natural Sciences, University of Haifa, Israel

http://marounlab.haifa.ac.il/

The aims of this work were to address how short-exposure to a high-fat diet (HFD) during juvenility affects cognitive and emotional behaviors and what is the role of Oxytocin in mediating these effects. This work is based on the idea that juvenility is a critical developmental stage during which the medial prefrontal cortex (mPFC) and the hippocampus undergo major changes and the brain is vulnerable to environmental factors and/or metabolic challenges.

In a series of experiments that I will present we show that acute exposure a HFD for 10 days in rats during juvenility impairs social recognition memory and plasticity in the prefrontal cortex. We also showed that exposure to HFD is associated with changes in Oxytocin levels and that its microinfusion could rescue the impairing effects of HFD on prefrontal functions.