Monday April 22, 2013
10.30am

Eduardo Rochete Ropelle, PhD
School of Applied Sciences (FCA) – University of Campinas (UNICAMP) – Brazil.
Laboratory of Molecular Biology of Exercise

“Hypothalamic Insulin and Leptin Resistance and Obesity”

Host: Johan Auwerx
Conference Room: AI 1153
EPFL - Lausanne

Abstract

Obesity is one of the most prevalent diseases in the modern world. It results from the progressive loss of balance between food intake and whole body energy expenditure. Recent studies have shown that consumption of fat-rich diets induces hypothalamic inflammation and dysfunction which is characterized by defective response to anorexygenic and thermogenic hormones, such as leptin and insulin. In the first part of this presentation, I will focus on the molecular mechanisms that connect inflammation with hypothalamic insulin and leptin resistance. Next, I will explore the effects of exercise on central insulin and leptin resistance, demonstrating the anti-inflammatory action of Interleukin-6 (IL-6).