

Neuroscience Seminar Series

Friday, April 4th, 2014 at 11:30 am

Salle de Conférences (R229)
Centre Universitaire des Saints-Pères
45 rue des Saints-Pères, 75006 Paris

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Regulating Mitochondrial Movement and Clearance, and Why a Neuroscientist Cares

Mitochondria are highly dynamic organelles and the regulation of their movement determines their distribution within cells. The extraordinary architecture of neurons makes them particularly dependent on mitochondrial motility and particularly vulnerable if damaged mitochondria are not efficiently removed. The presentation will review the mechanism by which motor proteins are coupled to mitochondria and present three pathways that regulate mitochondrial dynamics: Ca²⁺, glucose, and mitochondrial depolarization. Each of these pathways, when misregulated, hold relevance to neurodegenerative disorders.