

INSTITUT PARIS DESCARTES
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FÉDÉRATION DE RECHERCHE EN
NEUROSCIENCES

Neuroscience Seminar Series

Friday, June 17th, 2016 at 11:30

Salle des Conférences (R229)

Centre Universitaire des Saints-Pères

45 rue des Saints-Pères, 75006 Paris

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Fetal stress and epigenetic regulations in the normal and diseased developing brain

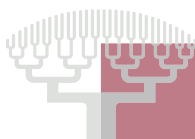
We aim to understand the links between environmental stress and brain development and integrity. There is an almost complete black box between the observation that fetal stress is a factor of predisposition to brain disabilities and the resulting emergence of associated cognitive and affective disorders. In particular, the molecular mechanisms underlying the short- and long-term effects of fetal stress in the etiology of these disabilities are largely unknown.

We address this question by studying Heat Shock Factors that represent a unique entry point into a link between stress, epigenetics, and brain development/integrity. Importantly, we demonstrated that HSF2 is involved in brain cortical development.

Using fetal alcohol exposure (FAE) as a paradigm of prenatal stress in mouse models, we investigate whether HSFs could contribute to the deposition of short- and long-term epigenetic marks.

We are currently investigating how the HSF-dependent deposition of epigenetic marks upon fetal stress is susceptible to lead to long-term disturbances of HSF2 target genes that are involved not only in neuronal migration, but also in brain abilities via the control of neurite growth and neuronal plasticity.

Those interested in meeting with the speaker please contact
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