Département de psychiatrie
Centre de neurosciences psychiatriques
Site de Cery
CH-1008 Prilly - Lausanne

Centre de Neurosciences Psychiatriques

CNP SEMINAR

ANNOUNCEMENT

Wednesday, November 23, 2016, 11.15 a.m.

"Homeoprotein intercellular transfer, a novel signaling pathway in brain development and physiology"

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Transcription factors of the homeoprotein family are well known developmental and physiological regulators acting in the nucleus. Several of them are also endowed with direct non-cell autonomous properties. Several examples of such signaling functions will be presented including, early patterning, cell migration, axon guidance and the regulation of cerebral cortex plasticity throughout life. If time permits the possibility to develop original therapeutic strategies based on homeoprotein transduction will be discussed.

Selected recent references

1) A. Prochianz & A.A. Di Nardo (2015). Homeoprotein signaling in the developing and adult nervous system. *Neuron*, **85**, 911-925

2) H. Rekaik (co-first), F.-X. Blaudin de Thé (co-first), J. Fuchs, O. Massiani-Beaudoin, A. Prochiantz* & R. Joshi (2015). Engrailed homeoprotein protects mesencephalic dopaminergic neurons from oxidative stress. *Cell Reports*, 13, 1-9

3) Bernard (co-first), C. Vincent (co-first) D. Testa (co-first), E. Bertini, J. Ribot, A.A. Di Nardo, M. Volovitch & A. Prochiantz (2016). A mouse model for conditional secretion of specific single-chai antibodies provides genetic evidence for regulation of cortical plasticity by a non-cell autonomous homeoprotein transcription factor. *PLOS Genetics*, DOI:10.1371.

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