

**COLLOQUE THEMATIQUE DE LA SOCIÉTÉ
DES NEUROSCIENCES**

“PROGRAMMING AND EPIGENETICS”

Université de Lille 1- USTL
15-16 December 2008
<http://www.programing-epigenetics-lille.univ-lille1.fr>

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The activity of non-genetic factors early in life that result in the permanent organization or imprinting of physiological systems is known as perinatal “programming”. These epigenetic insights offer new therapeutic avenues for exploration. Epigenetics also provides a means by which genetic material can respond to changing environmental conditions. The environment can thus prompt epigenetic changes that affect future generations. Stressors occurring during critical periods of development such as perinatal life may thus play on those epigenetic mechanisms, changing the phenotype of an individual. Epigenetic gene regulation through DNA methylation and histone modifications has been shown to be a crucial mechanism for the development and function of the nervous system, ranging from cell differentiation to neuronal plasticity, from learning and memory to behaviour. Consequently, the deregulation of the epigenome could be associated with various neuropsychiatric disorders.

Aim of this Symposium is to propose an overview of the actual research in the field of programming and epigenetics by placing emphasis on recent research progresses in molecular and cellular mechanisms governing brain development/behaviour, environmentally-induced plasticity in the adult and neurodegeneration, as well as metabolic disturbances. Special attention will be given to molecular signalling mechanisms, mechanism-based therapeutic strategies and animal models.

APPLICATION DEADLINE: OCTOBER 30TH, 2008

Fee: 20 Euros Undergraduate and PhD students, 40 Euros Researcher

December 15th 9:00-17:00

Programing of the epigenome

Jonathan Seckl “Glucocorticoids, developmental 'programming' and the risk of affective dysfunction” Edinburgh University

Sebastien G. Bouret “Developmental Programming of Hypothalamic Feeding Circuits” University of Southern California & Inserm U837- Lille2

Anna Moles “What's wrong with my mother: Do maternal licking and grooming change a mouse life?” CNR Neurosciences Rome Italy

Moshe Szyf “The dynamic epigenome and early life experience”. McGill University

Stefania Maccari “Epigenetic programming of the stress response by prenatal restraint stress” Lille 1

December 16th 9:00-16:00

Epigenesis of adult diseases

Nicole Datson “Glucocorticoid signalling in the brain: a target for epigenetic modulation?” Leiden University

Johannes Reul “Why do we remember stressful events so well? Some insights from epigenetic studies” Bristol University

Jocelyne Caboche “ERK/MSK1 signalling and chromatine remodelling in striatum: a key role for drug addiction” CNRS-UPMC ENParis

Tony Lefebvre “Glycosilation and Alzheimer” Lille1-UMR8576

Jean-Claude Michalski “Congenital Disorders of glycosylation in the brain” Lille1 -UMR8576