Psychobiologisches Kolloquium
Prof. Dr. Markus Heinrichs

Herzliche Einladung zum Vortrag:

Prof. Dr. Ron Stoop (University of Lausanne)

Neuromodulation by Oxytocin and Vasopressin: basic mechanisms underlying their opposite effects

Donnerstag 13.06. 2013, 18 c.t. – 20 Uhr

Konferenzraum - Lehrstuhl für Biologische und Differentielle Psychologie,
Stefan-Meier-Str. 8, 3. OG

ABSTRACT

Oxytocin and vasopressin are sister nonapeptides that have emerged from a common ancestor peptide and that differ only in two amino acids. They have appeared early in evolution and they exert different, at times opposite functions through distinct, specific receptors. In the rat brain, oxytocin and vasopressin receptors are expressed in separate regions with, in certain instances, remarkable complementary expression patterns. In the central amygdala oxytocin and vasopressin receptors are adjacently expressed in resp. the lateral (CeL) and medial part (CeM). In the CeL, we have found that oxytocin excites interneurons with inhibitory projections onto neurons in the CeM that are, in turn, excited by vasopressin. Accordingly, their effects on fear behavior are strikingly opposite. In my talk I will take this particular circuit as a potential starting point or, alternatively as a culminating endpoint, from which to consider a number of antagonistic effects of these neuropeptides on various types of behavior.

KURZVITA PROF. RON STOOP

Following a basic formation in Biophysics and a Ph.D. thesis at Columbia University in New York that started at Tsinghua University in Peking, I continued my postdoctoral research at Glaxo-Wellcome in Geneva before accepting to create an electrophysiology group in Lausanne University to explore interactions between neuronal circuits in the amygdala and hippocampus in vitro. Since 2004, I am a group leader at the Center for Psychiatric Neuroscience, a center created on a psychiatric hospital campus a few miles outside Lausanne through a joint effort from Lausanne University, University Hospital Center and the EPFL to develop translational studies in neuropsychiatry.