## 6<sup>th</sup> International Workshop on Computational Neuropsychiatry

# Systems Biology of Affective Disorders

May 7th / 8th 2010

Department of Psychiatry Alzheimer Saal Nußbaumstraße 7 Munich

#### Organized by:

Isar Amper Clinics, Clinic Munich East

(F. TRETTER, M. ALBUS)

Department of Psychiatry, University of Munich

(D. RUJESCU, O. POGARELL)

Max-Planck-Institute of Psychiatry, Munich

C. TURCK

Institute of Bioinformatics and Systems Biology, Helmholtz Zentrum Munich

(H.W. MEWES)

Department of Physics, University of Munich

(E. MENDOZA)

Department of Psychological Medicine, University of Munich

(T. ROENNEBERG)

Department of Pharmacology, University of Mannheim

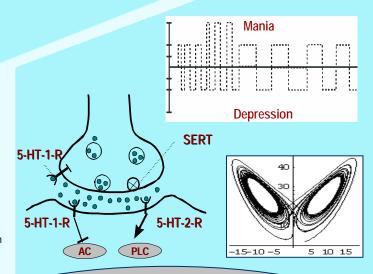
(P. GEBICKE-HAERTER)

Physiological Institute, University of Marburg

(H. BRAUN)

Department of Pharmacology, University of Frankfurt

(W.E. MÜLLER)



Understanding the dynamics and the pathology of synapses by using computational models

Essential benefits of theoretical neuropsychiatry by using tools of systems science (systemic modeling, computer simulations)

### FRIDAY, May 7th (13.00-20.30)

13.00: Felix TRETTER / Dan RUJESCU / Werner MEWES: Introduction

13.30: Heinz GRUNZE: The clinical side of bipolar disorders (moderator: Ulrich MANSMANN)

14.00: Elisabeth BINDER: Molecular mechanisms in mood and anxiety disorders – from genomics to epigenetics? (moderator: Werner MEWES) 14.30: Break

15.00: Sevilla DETERA-WADLEIGH: Molecular networks of genes for mood disorders and lithium response (moderator: Eduardo MENDOZA)

15.30: Rupert LANZENBERGER: Mechanisms of antidepressants and their dynamics (moderator: Felix TRETTER)
16.00: Break

16:30: Rainer RUPPRECHT: Modulation of ligand gated ion channels as a novel pharmacological principle (moderator: Oliver POGARELL)

17.00: Peter ACHERMANN: Modeling sleep regulation: from health to disease: affective disorders (moderator: John DITTAMI) 17.30: Break

**18.00: Till ROENNEBERG:** The molecular network of circadian oscillators *(moderator: Hans LILJENSTRÖM)* 18.30: Break

19.00: Denis NOBLE: The Aims of Systems Biology - from molecules to organs (moderator: Uwe AN DER HEIDEN)

#### SATURDAY, May 8th (09.00-14.00)

09.15: Hans WESTERHOFF: Perspectives of Neurosystemsbiology – molecular networks and neuropsychiatric diseases? (m.: Peter GEBICKE-HAERTER) 09.45: Hans LILJENSTRÖM: Modelling oscillatory networks? (moderator: Hans BRAUN)

10.15: Chadi TOUMA: The dynamics of endocrine responses - the impact of stress hormones in affective disorders (moderator: Epaminondas ROSA) 10.45: Break

11.15: Eberhard VOIT: A computational model of the dopamine synapse (moderator: Till ROENNEBERG)

11.45: Janet BEST: A computational model of norepinephrenergic / serotonergic synapse - dynamics of transmission (moderator: Christoph TURCK)

12.45: Christoph TURCK & François IRIS: Pathways of Proteomics in depression - data and modelling (moderator: Dan RUJESCU)

Contact: D. Rujescu

Tel: ++49-89-5160.5756 / Fax: -5779 Dan.Rujescu@med.uni-muenchen.de

