

Neuroscience Colloquium Winter Semester 2010/2011

David Linden

School of Psychology and North Wales Clinical School,
Bangor University, UK

Translational neuroimaging: from pathophysiological systems to therapeutic applications

The tools of functional neuroimaging and non-invasive neurophysiology are unique in the repertoire of modern neuroscience in that they allow access to the working human brain in health and disease. This gives them a potentially key role in translational neuroscience as we progress from recently identified risk genes to disease mechanisms and try to discover intermediate phenotypes and biomarkers of neuropsychiatric disorders. I will present examples where functional neuroimaging has already elucidated the neural systems underlying psychopathological symptoms (hallucinations) and the pathways from risk genes to cognitive disturbance and clinical phenotype (schizophrenia, dementia). Another growing translational interest is in the use of functional imaging to monitor the effects of treatment, both pharmacological and psychological. I will finally present recent data on the first clinical application of neuroimaging (through neurofeedback) as a therapeutic tool in affective and movement disorders.

Location: BCCN lecture theater,
Bernstein Center for Computational Neuroscience
Humboldt-Universität zu Berlin
Philippstr. 13, Haus 6

Date: Friday, December 17th, 4:00 p.m.

Host: Benedikt Salmen

Supported by:

SFB 665 "Developmental Disturbances in the Nervous System"
GRK 1123 "Cellular Mechanisms of Learning and Memory Consolidation in the Hippocampal Formation"
SFB-TRR 43 "The brain as a target of inflammatory processes"
NeuroCure

Organized by the Christian Rosenmund and Stephan Sigrist labs
Contact: christine.quentin@charite.de, ari.liebkowsky@charite.de