



NEUROCURE
Towards a better outcome of
neurological disorders



Neuroscience Colloquium Winter Semester 2010/2011

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Olfactory processing in the *Drosophila* brain

The *Drosophila* antennal lobe is a useful model circuit for investigating olfactory processing. The compartmental organization of the antennal lobe makes it relatively easy to map connections between neurons, and each compartment (or “glomerulus”) corresponds intuitively to a discrete processing channel in the network. Moreover, this circuit contains relatively small numbers of neurons, and genetic tools allow us to label identified cells for recording. We monitor *in vivo* odor responses in these neurons using electrophysiological recordings, and we use genetic tools and pharmacology to probe their functional interactions. I will describe recent experiments from our laboratory investigating transformations of olfactory information in this system, the mechanisms underlying these transformations, and their potential functions.

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

Date: Friday, February 4th, 4:00 p.m.

Host: Dietmar Schmitz

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”
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