Sonderforschungsbereich/Transregio 31 “Das aktive Gehör”

E I N L A D U N G

zum Vortrag im Rahmen des Seminars des SFB/TRR 31

Freitag, 10. Februar 2012, 14 Uhr c.t.

im Raum W2 1-143 der Universität Oldenburg
und Raum H28 / R 2.31 med. Campus Magdeburg,
(per Videoübertragung)

”Developmental and activity-dependent plasticity at large glutamatergic synapses"

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Calyces and endbulbs of Held of the mammalian auditory brainstem - which have long fascinated neuroanatomists because of their peculiar morphology - are valuable model synapses for physiologists because they are suitable for presynaptic voltage-clamp, combined with fluorimetric Ca2+ measurement and caged-Ca2+ stimulation. Therefore, these axon terminals allow studying the quantitative aspects of synaptic transmission at great precision and enable us to dissect the mechanisms of synaptic plasticity. In this seminar, I will explore processes that contribute to transforming calyceal synapses into rapidly transmitting and nearly failsafe relays during early postnatal development, and summarize mechanisms regulating synaptic strength during repetitive firing.