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, 27. November 2015, 11.00 Uhr c.t.

im Raum H28 / R 2.31 des Med. Campus Magdeburg und
Raum W30 0-33/34 der Universität Oldenburg (NeSSy) (per Videoübertragung)

"Do cochlear synaptopathies diversify hearing disorders (tinnitus or hyperacusis)"

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Before hearing onset, inner hair cell (IHC) maturation proceeds under the influence of spontaneous Ca2+ action potentials (APs.) Through an efferent cholinergic feedback from the medial olivocochlear bundle (MOC), the temporal signature of IHC Ca2+ AP is modified, driving the IHC pre- and post-synapse phenotype towards low spontaneous (spike) rate (SR), high-threshold characteristics. With sensory experience, the IHC pre- and post-synapse phenotype matures towards the instruction of low-SR, high-threshold and high-SR, low-threshold auditory fiber characteristics. What drives these processes? Bottom up or top down influences? Are these crucial developmental steps linked to different degrees of vulnerability of auditory fibers in the mature system? Are specific cochlear synaptopathies associated with different hearing disorders as tinnitus, hyperacusis or age-dependent hearing loss?