

Lecture is held Wednesday, **July 17th, 10:30 h**
Venue: Auditorium, Virchowweg 6, CCO

Prof. Dr. Lu Chen

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HOST: Prof. Christian Rosenmund



Retinoic Acid Receptor RARalpha Signaling in Synaptic Plasticity and Hebbian Learning

Homeostatic synaptic plasticity is a stabilizing mechanism engaged by neural circuits in response to prolonged perturbation of network activity. The non-Hebbian nature of homeostatic synaptic plasticity is thought to contribute to network stability by preventing 'runaway' Hebbian plasticity at individual synapses. However, this hypothesis has not been investigated in vivo in the context of behavioral learning. In my talk, I will discuss recent progress in our investigation of how homeostatic synaptic plasticity functions as a form of meta-plasticity in hippocampus to alter Hebbian synaptic rules, and how such meta-plasticity impacts learning. Further, I will discuss the potential molecular mechanisms by which such meta-plasticity is achieved through changes of synaptic state.