

COLLOQUIA IN CELLULAR SIGNALLING

Venue: Medical University Vienna, Center for Physiology and Pharmacology,
Institute of Pharmacology, Waehringerstrasse 13a, 1090 Vienna, "**Leseraum**".

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Friday 13.03.2015 11:00 s.t.

Rolf Sprengel (host: E. Casanova)

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***"AMPA and NMDA Receptor mediated plasticity in memory
formation and memory evaluation"***

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Abstract: Recent studies using transgenic mice lacking N-methyl-D-aspartate receptors acid receptors (NMDARs) in the hippocampus or GluA1 containing α -amino-3-hydroxy-5-methylisoxazole-4-propionic receptors (AMAPRs) challenge the long-standing hypothesis that hippocampal long-term potentiation-like mechanisms underlie the encoding and storage of spatial memories. However, it may not be the synaptic plasticity-dependent memory hypothesis that is wrong; instead, it may be the role of the hippocampus that needs to be re-examined. The conclusions of the detailed analysis and of the different AMPARs and NMDARs knock out models will be discussed.