



Plasticity of hippocampal mossy fiber synapses

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Thursday, February 19th 2015, 16:00h
Life & Brain Center
Seminar Room, ground floor

Michael Frotscher is a Hertie Professor for Neuroscience, Center for Molecular Neurobiology Hamburg (ZMNH), Institute for Structural Neurobiology (ISN). He has made major contributions in the areas of development and plasticity of hippocampal connections, as well as the structure and function of central synapses. He has also produced a number of seminal findings related to how neurons migrate and achieve their final position in central nervous system structures.

Selected Publications

Studer D, Zhao S, Chai X, Jonas P, Graber W, Nestel S, **Frotscher M**. Capture of activity-induced ultrastructural changes at synapses by high-pressure freezing of brain tissue. *Nat Protoc*. 2014 Jun;9(6):1480-95.

Chai X, Münzner G, Zhao S, Tinnes S, Kowalski J, Häussler U, Young C, Haas CA, **Frotscher M**. Epilepsy-induced motility of differentiated neurons. *Cereb Cortex*. 2014 Aug;24(8):2130-40.

Zhao S, Studer D, Chai X, Graber W, Brose N, Nestel S, Young C, Rodriguez EP, Saetzler K, **Frotscher M**. Structural plasticity of spines at giant mossy fiber synapses. *Front Neural Circuits*. 2012 Dec 18;6:103.

Zhao S, Studer D, Chai X, Graber W, Brose N, Nestel S, Young C, Rodriguez EP, Saetzler K, **Frotscher M**. Structural plasticity of hippocampal mossy fiber synapses as revealed by high-pressure freezing. *J Comp Neurol*. 2012 Aug 1;520(11):2340-51.

Hellwig S, Hack I, Kowalski J, Brunne B, Jarowyj J, Unger A, Bock HH, Junghans D, **Frotscher M**. Role for Reeling in neurotransmitter release. *J Neurosci*. 2011 Feb 16;31(7):2352-60.