

Curriculum Vitae M. Czisch

Michael Kurt Josef Czisch, né Hodapp
Dr. rer. nat., Dipl. Physiker

born 19.03.1965 in Freiburg, Germany.

- since 2006 Head of RG Neuroimaging, Max Planck Institute of Psychiatry.
- since 1999 Staff scientist at the Max Planck Institute of Psychiatry,
(Prof. Dr. Dr. Dr. h.c. F. Holsboer), Munich, Germany.
- 1996-1999 Supervisor of the European SON NMR Large-Scale Facility at the *Bijvoet Center for Biomolecular Research*, Utrecht University (Prof. Dr. R. Kaptein), The Netherlands. The SON NMR LSF was supported as an outstanding scientific facility by the European Union in the context of the framework *Human Capital and Mobility* and *Training and Mobility in Research*.
- 1996 PhD, grade: magna cum laude.
- 1992-1996 PhD position at the Max Planck Institute for Biochemistry in Martinsried, Germany, Biological NMR spectroscopy (Prof. Dr. Dr. h.c. mult. R. Huber, Dr. T.A. Holak).
- 1991 MSc, grade: magna.
- 1989-1991 Diploma thesis at the University hospital Freiburg, Germany, section Clinical radiology (Prof. Dr. J. Hennig).
- 1988 Studies of physics in Freiburg, Germany.
- 1986-1988 Civilian service at University hospital Freiburg, Germany.
- 1983-1986 Studies of physics at the Albert Ludwigs University Freiburg, Germany; intermediate diploma.

Current research topics:

In my current position I am heading the NMR research group at the Max-Planck-Institute of Psychiatry (MPIP). The NMR research group is dedicated to explore intermediate phenotypes of neuropsychiatric diseases by exploiting advanced MR imaging techniques including functional MRI at 1.5 and 3 Tesla (human) as well as 7 Tesla (animal). Our group contributes to various research fields in the context of the general mission of our institute: A strong application of functional MR imaging lies in the field of sleep physiology where electrophysiology and BOLD imaging are combined. Pharmacological mechanisms are growingly investigated by neuroimaging methods allowing for *in-vivo* visualization of altered cerebral activation upon intervention, both in animal models as in human subjects. In clinical projects on depression a cross-bridging to genetic research at the MPIP is promoted by relating brain morphology to genetic variants. Animal models of PTSD and chronic stress are endophenotyped using spectroscopy and pharmacological BOLD modulation while novel techniques as Mn²⁺ imaging are probed.

Selected publications:

Effects of Rapid Eye Movement Sleep Deprivation on Fear Extinction Recall and Prediction Error Signaling. (in press) Spormaker VI, Schröter MS, Andrade KC, Dresler M, Kiem SA, Goya-Maldonado R, Wetter TC Holsboer F, Sämann PG, **Czisch M**. *Human Brain Mapping*, in press

The neuronal transporter gene *SLC6A15* confers risk to major depression. (2011) Kohli MA*, Lucae S*, Sämann PG, Schmidt MV, Demirkan A, Hek K, Roeske D, Alexander M, Salyakina D, Ripke S, Hoehn D, Specht M, Menke A, Hennings J, Heck A, Ising M, Schreiber S, **Czisch M**, Müller MB, Uhr M, Bettecken T, Becker A, Schramm J, Bradley B, Ressler KJ, Nöthen MM, Cichon S, Hofman A, Tiemeier H, van Duijn CM, Holsboer F, Müller-Myhsok B⁺ and Binder EB⁺. *Neuron*, 70, 252–265

Sleep spindles and hippocampal functional connectivity in human NREM sleep. (2011) Andrade KC, Spormaker VI, Dresler M, Wehrle R, Holsboer F, Sämann PG, **Czisch M**. *J Neuroscience*, 31:10331–10339

Development of a Large-Scale Functional Brain Network During Human Non-Rapid Eye Movement Sleep. (2010) Spormaker VI*, Schroeter MS*, Gleiser PM, Andrade K, Dresler M, Wehrle R, Sämann PG, **Czisch M**. *J Neuroscience* 30(34):11379-87

Effects of fractionated manganese injections on MRI contrast enhancement and physiological measures in C57/BL6 mice. (2010) Grünecker B, Kaltwasser S, Peterse Y, Sämann PG, Landgraf R, Wotjak C, **Czisch M**. *NMR in Biomedicine*, 23(8):913-21