

The Department for Neurophysiology and Pathophysiologie at the University Medical Center Hamburg-Eppendorf, headed by Prof. Dr. Andreas K. Engel, is offering a

PhD position for 3 years
salary according to TV-KAH E13 (65%)

within a research project on modulation of attention by transcranial alternating current stimulation (tACS) in humans.

The project is funded by the German Research Foundation (DFG) and focuses on modulation of spatial and temporal attention using tACS. Newly developed finite element method (FEM) based multi-electrode optimization will be applied to improve targeting with high-definition tACS (hd-tACS). Electroencephalography (EEG) and magneto-encephalography (MEG) will be used to validate the new stimulation tools. The planned experiments will focus on the analysis of dynamic large-scale interactions in the brain and the characterization of functional networks involved in temporal and spatial attention.

The project is part of the collaborative research project "Individualized closed-loop transcranial alternating current stimulation" in cooperation with the Institute for Biomagnetism and Biosignalanalysis (IBB) at the University of Münster (PD Dr. Carsten Wolters) and the Dept. of Psychology at the University of Oldenburg (Prof. Dr. Christoph Herrmann) within the DFG-funded priority program SPP 1665 "Resolving and manipulating neuronal networks in the mammalian brain - from correlative to causal analysis". More information can be found at <http://www.spp1665.de/>.

Applicants must hold a master's degree (or equivalent) in psychology, biology, physics, biological engineering or cognitive neuroscience. Experience in human EEG/MEG studies or biosignal analysis is desirable. The successful candidate should have profound experience with experimental research, solid programming skills (Matlab, Presentation, or equivalent), and knowledge in statistical testing. Proficiency in oral and written English is mandatory.

Preferable starting date is December 2016. Applications should enclose the following information: statement of motivation, describing personal qualifications and future research interests, curriculum vitae, certificate of the master's degree including grades of the master level studies, copy of the master's thesis, and contact details of two referees. Applications should be sent to: Dr. Till Schneider (t.schneider@uke.de) with reference to "PhD position, SPP1665".

Applications from female scientists are specifically invited. In the case of similar qualifications, competence, and specific achievements, women will be considered on preferential terms within the framework of the legal possibilities. Handicapped candidates with equivalent qualifications will be given preference.

For further details, please contact Dr. Till Schneider (phone: +49-40-741053188, t.schneider@uke.de, www.uke.de/neurophysiology).