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Nottingham

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The Helfrich lab at the Center for Neurology and Hertie Institute for Clinical Brain Research at the University of Tübingen and the Myers lab at the School of Psychology at the University of Nottingham invite applications for a fully funded position for a

PhD student

with an interest in the neural basis of memory. The PhD project will focus on understanding the **flexible use of memory using high-precision neuroimaging**. A key goal is to develop novel analytical approaches to maximize the context-dependent readout of mnemonic content. The project will be conducted **jointly between Tübingen and Nottingham** with approximately half the time spent at each site. Tübingen offers a rich and diverse neuroscience campus, where key facilities are in close proximity. Nottingham is excellently equipped for neuroimaging with multiple MEG and high-field MRI centers. This will provide a unique opportunity to conduct research in two universities with complementary neuroscience communities and facilities.

Key Methodology: The project will combine detailed behavioral testing with intracranial EEG recordings in humans as well as non-invasive neurophysiology (EEG, MEG), with a possibility of adding electrical brain stimulation. A methodological focus of the project will be to combine invasive and non-invasive approaches (iEEG-MEG). We offer hands-on training on all aspects of study design and data collection as well as state-of-the-art analysis methods of electrophysiological data.

Skills and qualifications: The position is well-suited for candidates from a wide range of backgrounds, including biology, computer science, psychology, medicine, cognitive science and neuroscience. We particularly encourage applications from researchers with previous experience in human imaging or primate neurophysiology who are seeking to apply their skills to basic science questions in a clinical context with various opportunities for translational application. Prior coding experience in e.g. MatLab or Python is helpful, but not a pre-requisite. We welcome researchers with an international background. German language skills are not necessary.

The student will be jointly supervised by Randolph Helfrich, a clinician-scientist in Neurology/Epileptology (Tübingen), and Nicholas Myers, an Assistant Professor in Psychology (Nottingham). We strive to provide an inclusive and family-friendly working environment. We particularly encourage applications from members of groups that have been historically excluded from psychology and neuroscience. The position is fully funded by the University of Nottingham and the University of Tübingen's funding as part of the Excellence Strategy of the German Federal and State Governments, in close collaboration with the University of Nottingham.

If we have sparked your interest, please send your application, including a CV, relevant certificates or diplomas and a cover letter outlining your research interest to randolph.helfrich@med.uni-tuebingen.de and nicholas.myers@nottingham.ac.uk.

Key references: Helfrich et al. (2018) Neuron; Helfrich et al. (2019) Nature Commun.; Myers et al. (2017) TiCS; Muhle-Karbe, Myers et al. (2021) JNeurosci.