



**UNIVERSITÄTS
KLINIKUM** FREIBURG

POSTDOC-Position

Postdoctoral opportunity at the University of Freiburg

using brain stimulation and single-unit electrophysiology to elucidate the neural basis of memory

The successful candidate will join an NIH funded team carrying out fundamental experiments to elucidate the mesoscopic and microscopic neural dynamics underlying human memory and using direct brain stimulation as a manipulative tool to study those dynamics. The epilepsy center at Freiburg is one of the leading centers in Europe with a long track record of fundamental electrophysiological studies in both cognition and disease, using in vivo single unit recordings and field potential recordings. The current project aims to collect recording and stimulation data from patient volunteers as they perform carefully-matched verbal and spatial memory tasks. To test the causal role of neural biomarkers in supporting verbal and spatial memory function we will employ direct brain stimulation to disrupt or upregulate neural activity, and measure ensuing changes in behavioral performance. The postdoctoral fellow recruited to this position will collaborate closely with the director of the epilepsy center, Prof. Dr. Andreas Schulze-Bonhage, and also collaborate with a team of scientists at the University of Pennsylvania, Columbia University, and four other major international academic medicine centers.

We particularly seek applicants with experience in analyzing data using python and general sophistication in computational methods.

Applicants can send their BIOs and further information to:

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