Postdoc position (100%, TV-L 13)
on Human Microstructural Imaging
Starting 01.07.2020

The [Institute for Cognitive Neurology and Dementia Research (IKND)](#) and the [German Center for Neurodegenerative Diseases (DZNE)](#) are unique research centers dedicated to the subject of dementia and all its facets, as well as other neurodegenerative diseases. The centers have access to an MR-PET scanner, three 3 Tesla MRI scanners, one research-only 7 Tesla MRI scanner, MEG and EEG systems, and, in the near future, the first 7 Tesla Connectome MR scanner. The centers are equipped with unique databases that include older people, superagers, and people with a variety of neurodegenerative diseases. The IKND and DZNE stand for excellence in research and science management, translation of scientific results into practice, interdisciplinarity, and internationalization. With over 1000 employees from 55 nations, spread over 10 sites in Germany, the DZNE is one of the leading research centers in the field of aging and neurodegeneration.

This position will be based in the [Cortical Microstructure Research Group](#) headed by Dr. Esther Kühn embedded within the department of Prof. Emrah Düzel. The Cortical Microstructure Research Group seeks to (i) gain fundamental knowledge on structure-function interactions at the meso-scale in human sensorimotor systems, (ii) understand the neuronal mechanisms of human neurodegeneration using 7T-MRI, and (iii) develop novel diagnostic tools and interventions that help maintain people's independence.

We are looking for a Postdoctoral Researcher (100%, salary based on TV-L 13) starting 01.07.2020. The candidate will be integrated into a vibrant [team of researchers](#) at the [IKND Magdeburg](#) working on microstructural imaging in health and disease. The focus of this Postdoctoral position will be the analysis and modeling of ultra-high field imaging data to understand age- and disease-related changes in sensorimotor processing and cognitive mapping. The post-holder will be given the unique opportunity to analyze one of the highest resolution *in vivo* human brain datasets currently available, with an isotropic resolution of 0.25 mm. The post-holder

will have the opportunity to develop his/her own research profile, and will get support for Grant applications and future independence. The post-holder will be involved in supervision of PhD students (including co-authorships), and the organization of the internationally renowned BID symposium on ultra-high field neuroimaging in 2021. A completed PhD in computational neuroscience, neuroscience, cognitive psychology or a related field is a requirement. Experience with 7T-MRI analyses and cortex segmentation are a plus. Working from home is possible, particularly at the beginning of this position, dependent on the development of the COVID-19 situation (updates of the IKND here). The position is initially until 30.06.2022 but with the aim for developing a longer-term Postdoctoral position dependent on research interests.

What we are looking for:
Position: Postdoctoral Researcher, 100%
Start date: 01.07.2020
Until: 30.06.2022
Location: IKND Magdeburg

What your role would look like
Head of department: Prof. Dr. Emrah Düzel
Direct supervisor: Research Group leader Dr. Esther Kühn
Major local collaborator: MR-physics group of Prof. Dr. Oliver Speck
Project title: *In vivo* microstructural imaging & aging
Tasks: Multi-scale cortex segmentation, modeling of multi-modal neuroimaging data at or below 0.5 mm iso, imaging of clinical populations, publication of research results in high-profile international journals, organization of symposium on 7T-MRI, supervision of PhD-students, development of international visibility and independent research profile
Profile: Excellent PhD in psychology, cognitive neuroscience, Neuroscience or related field, experience in supervision of BSc, MSc and ideally PhD students, experience with analyzing and publishing 7T-MRI data, high motivation and dedication to research

Please submit your **application** (CV including list of publications (published and under revision) and list of conference posters, names of two referees, and letter of motivation) within **one pdf-file** to esther.kuehn@dzne.de no later than **15.05.2020**.