Faculty of Psychology

At the Institute of Educational and Developmental Psychology, the Chair of Lifespan Developmental Neuroscience offers a project position as

**Research Associate / Postdoc (m/f/x)**
(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **February 1, 2023** at the earliest. The position is limited for 4 years, with a possibility of extension subject to the availability of resources. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG)

The Chair of Lifespan Developmental Neuroscience investigates neurocognitive mechanisms underlying perceptual, cognitive, and motivational development across the lifespan. The main themes of our research are neurofunctional mechanisms underlying lifespan development of episodic and spatial memory, cognitive control, reward processing, decision making, perception and action. We also pursue applied research to study effects of behavioral intervention, non-invasive brain stimulation, or digital technologies in enhancing functional plasticity for individuals of difference ages. We utilize a broad range of neurocognitive (e.g., EEG, fNIRs, fMRI, tDCS) and computational methods. Our lab has several testing rooms and is equipped with multiple EEG (64-channel and 32-channel) and fNIRs systems, as well as eye-tracking and virtual-reality devices. The MRI scanner (3T) and TMS-device can be accessed through the university's NeuroImaging Center. TU Dresden is a university of excellence supported by the DFG, which offers outstanding research opportunities. Researchers in this chair are involved in large research consortium and cluster, such as the DFG SFB 940 „Volition and Cognitive Control“ and DFG EXC 2050 „Tactile Internet with Human-in-the-Loop“.

The here announced position is embedded in a newly established research group funded by the DFG (FOR5429), with a focus on modulating brain networks for memory and learning by using focalized transcranial electrical stimulation (tES). The subproject with which this position is associated will study effects of focalized tES on value-based sequential learning at the behavioral and brain levels in adults. Within the research group we closely collaborate with the project sites at Center for Cognitive Neuroscience of the Freie Universität Berlin (Free University of Berlin) and the Department of Neurology at the University Medicine Greifswald and other partner institutions. The data collection for this subproject will mainly be carried out at the Berlin site.

**Tasks:**
- conduct project-related research (data collection and analyses);
- develop own research ideas in the areas of value-based learning and neurocognitive aging;
- publishing scientific articles.

**Requirements:**
- university and PhD degree (e.g. Dr. rer. nat. or PhD) in Psychology, Neuroscience or related fields;
- experiences with cognitive neuroscience methods (e.g., fMRI, EEG);
- excellent language skills in English. Language skills in German is not required but will be welcomed. Prior experience with tES is not required but will be preferred. Interests and experiences in computational neuroscience will be highly welcomed.

Please contact Prof. Shu-Chen Li (shu-chen.li@tu-dresden.de) for questions about the position.

Applications from women are particularly welcome. The same applies to people with disabilities.

Please submit your application materials (cover letter, research interests, CV, degree certificates and names of 3 referees) by **November 15, 2022** (stamped arrival date of the university central mail service applies) with the subject heading: Postdoc-Brain Stimulation to: TU Dresden, Fakultät Psychologie, Institut für Pädagogische Psychologie und Entwicklungspsychologie, Professur für Entwicklungspsychologie und Neurowissenschaft der Lebensspanne, Frau Prof. Dr. Shu-Chen Li, Helmholtzstr. 10, 01069 Dresden or via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document to shu-chen.li@tu-dresden.de. Please submit
copies only, as your application materials will not be returned to you. Expenses incurred in attending the interviews cannot be reimbursed.

**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: [https://tu-dresden.de/karriere/datenschutzhinweis](https://tu-dresden.de/karriere/datenschutzhinweis).