

School of Science

The **Faculty of Psychology, Collaborative Research Center (CRC) 940 – Volition & Cognitive Control –** (<https://tu-dresden.de/bereichsuebergreifendes/sfb940>) invites applications for two research positions as

Ph.D. student or post-doctoral fellow

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

with 65% of the fulltime weekly hours (Ph.D. student) or with 100% of the fulltime weekly hours (post-doc). The positions start as soon as possible and are initially limited to 3 years. A contract extension for a fourth year is possible. The period of employment is governed by § 2 Fixed Term Research Contracts Act (WissZeitVG).

The positions are within the research group „Neuroimaging of Higher Cognitive Brain Function“ led by Hannes Ruge and Uta Wolfensteller. The successful candidates will work in a CRC sub-project which addresses the question how humans flexibly learn to implement entirely novel behavioral rules acquired via verbal instruction, observation, or trial-and-error, especially also when these newly acquired behaviors are in conflict with habitual response tendencies. To this end, behavioral measures and measures of neural activity and connectivity (via fMRI) will be combined with transcranial magnetic stimulation. The planned experiments build on extensive previous work conducted in our research group (e.g., Mohr et al., 2016, *Nature Communications*; Ruge et al., 2019, *Elife*; Zwosta et al., 2018, *Neuroimage*).

PhD students are participating in a CRC-funded graduate program including annual spring schools. The neuroscientific studies will be conducted in the Neuroimaging Center Dresden (<http://www.nic-tud.de>) which is equipped with a fully research-dedicated 3T scanner and a state-of-the-art TMS system.

Tasks: The successful candidates will develop and implement experiments using fMRI and TMS methodology, will apply advanced data analysis techniques for characterizing multivariate activity patterns and functional connectivity changes, and will publish the findings in international journals.

Requirements: A university degree (master/ diploma or Ph.D.) in Cognitive Neuroscience, Psychology, or similar; strong interest in neuroscientific topics; excellent skills in statistical methods; solid background in fMRI and/or TMS methodology; proficient in English language; Programming skills (e.g., Matlab) as well as prior experience with fMRI and/or TMS are an advantage.

For questions about these position please contact the project leaders Dr. Uta Wolfensteller (uta.wolfensteller@tu-dresden.de) or Prof. Dr. Hannes Ruge (hannes.ruge@tu-dresden.de). The TU Dresden is an equal opportunities employer, committed to the advancement of individuals without regard to ethnicity, religion, gender, or disability.

To apply, please include all documents in one PDF-file in the following order: CV, a brief statement describing your personal qualifications and future research interests, contact information for two referees. Applications with the subject heading '**APPLICATION CRC940 A2**' should be sent until **July 31 2020** via email to hannes.ruge@tu-dresden.de.