

To strengthen addiction research, the German Research Foundation is funding a Collaborative Research Centre (CRC) at the TU Dresden, Charité Berlin and CIMH Mannheim. The CRC TRR 265 'Losing and Regaining Control over Drug Intake: From Trajectories to Mechanisms to Interventions' aims at identifying the trajectories of losing and regaining control over drug consumption, to study the underlying cognitive and neurobiological mechanisms, and to provide mechanism-based interventions.

The CRC and TU Dresden provide an outstanding scientific infrastructure and an ideal environment for interdisciplinary collaboration. For computational work, the group has access to the TU Dresden high-performance computing clusters. Experiments will be performed at the Neuroimaging Centre (<https://nic-tud.de>). The Neuroimaging Centre is equipped with a research-only 3T Siemens MRI scanner, MRI-compatible EEG and eye tracking, as well as transcranial magnetic stimulation (TMS) and transcranial direct current stimulation (TDCS) units. All experimental facilities are supported by experienced physics and IT staff.

The candidate will work in the project 'Longitudinal monitoring of cognitive control as a modifying factor of drinking behavior', a collaboration between the [Systems Neuroscience Lab](#) (Prof. Michael Smolka) in Dresden and the [Max Planck UCL Centre for Computational Psychiatry](#) (Prof. Raymond J. Dolan) in London, under the direct supervision of Dr. Lorenz Deserno. The aim of the project is to identify cognitive trajectories related to losing and regaining control over everyday drinking behaviour, and to better understand how cognitive control modifies the impact of cues, stress, and subjective states on control over drinking behaviour. We will investigate these issues by using a smartphone application for longitudinal ambulatory assessment of cognitive control and decision-making over one year, in a cohort of 900 individuals. The position is ideal for candidates with a strong background in Cognitive and Computational Neuroscience and an interest in interdisciplinary clinical research. The candidate will be based at TU Dresden, but will receive an Honorary contract at University College London as parts of the project will be carried out at the Max Planck UCL Centre.

For this project, the Systems Neuroscience Lab at the Department of Psychiatry in the Faculty of Medicine invites applications for a

Postdoctoral Fellow / E13 TV-L 100% (f/m/d)

The position is initially limited until June 30th, 2023.

Your Tasks:

- Preparing and conducting behavioural smartphone-based tasks
- Analysing longitudinal behavioural data of smartphone-based tasks
- Learning to perform computational modelling of such smartphone-based behavioural data supported by experienced modelling group (mainly in the context of Reinforcement Learning)

- Additional analyses of MRI data collected in the CRC is possible
- Preparing manuscripts and presenting results at conferences

Your profile:

- Doctoral degree in Psychology, Cognitive Neuroscience, Computational, Medicine, or related disciplines
- Some experience in conducting and analysing behavioural data, ideally with regard to longitudinal data (e.g. multilevel regression models or structural equation models)
- Some Programming skills in Matlab, R or Python
- Keen interest in experimental approaches to study complex human behaviour
Additional experience with MRI data is a plus, e.g. knowledge of common software packages (e.g. SPM, Psych-Toolbox etc.)

We offer you:

- Being part of the CRC and its scientific activities
- Working in a highly interdisciplinary team with leading scientists in addiction research and cognitive computational neuroscience.
- Arranging for flexible working hours to find a balance between work and family life
- The unique possibility for international exchange with the Max Planck UCL Centre for Computational Psychiatry and Ageing Research, which can be planned individually and flexibly

Disabled people are explicitly encouraged to apply.

We kindly ask you to apply preferably via our online form to make the selection process faster and more effective. Of course, we also consider your written application without any disadvantages.

We look forward to receiving your complete application (one PDF-document including a cover letter with a brief summary of research interests, full CV, and two references). Send applications to Dr Lorenz Deserno (lorenz.deserno@mailbox.tu-dresden.de / l.deserno@ucl.ac.uk) and do not hesitate to get in touch in case of any questions.