

The Max Planck Institute for Human Cognitive and Brain Sciences (MPI CBS) in Leipzig,
Germany, Department of Social Neuroscience led by Prof. Dr Tania Singer

in collaboration with

Prof. Dr John-Dylan Haynes from the Bernstein Center for Computational Neuroscience at the
Charité in Berlin

invites applications for a

**Postdoctoral Position: Advanced analysis of large-cohort neuroimaging data on
mindfulness meditation (Ref “PD 21/17”).**

The position is offered within the interdisciplinary research teams of both the Department of Social Neuroscience, investigating the foundations of human social behaviour, and the Haynes-Lab for Theory and Analysis of Large-Scale Brain Signals at the Bernstein Center for Computational Neuroscience at the Charité in Berlin. The position will be supervised by Prof. Dr Tania Singer and Prof. Dr John-Dylan Haynes. The workplace is located in Berlin in Haus 5 on Campus Nord of Humboldt University Berlin, a satellite lab of the Social Neuroscience Department of MPI CBS in Leipzig, to facilitate the interaction between the Bernstein Center and MPI CBS.

The successful candidate will be primarily involved in the advanced analyses of fMRI data obtained during a large-scale one-year longitudinal mental training study, the *ReSource Project* (www.resource-project.org). The *ReSource Project* investigates the effects of attentional, affective, and cognitive mental training on different functional and structural brain networks, stress- and health-related markers, subjective well-being as well as attention, mind-wandering, meta-cognition, social and affective functioning and prosocial behaviour. In this project, more than 300 people underwent five measurement time points and were tested in more than 90 different measures including resting state and several task-based fMRI scans (empathy, Theory of Mind, pain, attention, and emotion regulation), as well as DTI and structural MRI assessments. The primary goal for the successful candidate will be the application of advanced fMRI analysis methods such as multivariate pattern analysis (MVPA) in order to investigate training-induced plasticity of attentional, socio-affective and socio-cognitive as well as nociceptive processes, their relationship to social behaviour, health markers and other functions.

Job requirements

- A strong background in fMRI data analysis allowing the applicant to efficiently apply advanced statistical analysis methods on large longitudinal data sets. This includes previous application of such analysis methods and proficiency of related software tools (e.g. MATLAB/Python programming). Preferably, the applicant has worked with MVPA, alternatively he or she has experience with other advanced modelling approaches (DCM, graph-theoretical network modelling), and in general has an enthusiasm to dive into new analysis methodologies.
- Research interest in the neural basis of attention, pain, social affect and cognition as well as training-induced functional plasticity.

- Interest in interdisciplinary collaboration with other researchers in the social neuroscience department on measures including functional fMRI tasks, behavioural paradigms (including social cognition, game theoretical paradigms, cognitive functioning etc.) and bio-psychology (including stress and immune markers, telomere length etc.).
- The successful candidate has finished his/her PhD research and may already have held a postdoctoral position, and he/she shows evidence of high scholarly promise in the form of publications and other academic achievements.

The Max Planck Institute in Leipzig (<http://www.cbs.mpg.de>) offers an international research environment, with English being the language spoken in the laboratory. It provides an excellent infrastructure (e.g. a human 7T MRI scanner and three human 3T scanners, among them one of three Connectom scanners worldwide, rt-fMRI, TMS/tDCS, MEG, behavioural laboratory, access to research support staff for scanning and behavioural testing, etc.).

For further details, see <http://www.cbs.mpg.de/depts/singer> and <https://sites.google.com/site/hayneslab/home>.

Applications (including a motivation letter, CV, list of publications, and contact names of 2–3 referees) should be sent as a single PDF file jointly to Sabrina Walter (walter@cbs.mpg.de) ccing Tania Singer (singer@cbs.mpg.de) and John-Dylan Haynes (haynes@bccn-berlin.de). Review of applications will continue until the position is filled. Shortlisted candidates will be invited to Haus 5 on the campus of Charité Berlin.

The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and encourages applications from such qualified individuals. Furthermore, the Max Planck Society seeks to increase the number of women in areas where they are underrepresented and therefore encourages applications from female candidates.

Contact

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<http://www.cbs.mpg.de/singer>