The groups Dr Elena Azañón and Dr Max-Philipp Stenner at the Otto-von Guericke University Magdeburg and the Leibniz Institute for Neurobiology (Magdeburg, Germany) offer a position as part of the Collaborative Research Centre 1436 "Neural Resources of Cognition" (project C03) as

Postdoctoral researcher (f/m/d)

(offered for a duration until the end of December 2028)

Neural Coding of Sequential Information in Human Memory & Action

About the Project

The ability to order sequential information is critical for human memory and action. Our goal is to identify **neural representations of serial order** that are shared across memory and action in the human brain. Using **magnetoencephalography (MEG)**, decoding techniques, and transcranial magnetic stimulation (TMS), the candidate will investigate the macroscopic neural circuitry underlying domain-general serial order, assess its enhancement through training, and examine its transfer potential in healthy, young participants. Additionally, the research will explore the vulnerability of these mechanisms to **pre-clinical tau pathology in the aging brain**.

Your profile

- A highly motivated, team-minded scientist.
- **Strong interest in the psychology and neuroscience of human motor control and memory**.
- High degree of scientific creativity, passion, and rigor.
- **Demonstrable experience with MEG or EEG is essential**, as well as **demonstrable experience with human behavioral experiments**.
- Experience with **decoding of MEG or EEG data** is a strong plus, or else will have to be acquired quickly.
- **Excellent programming skills** (in particular **MatLab**; in addition, **Python** would help).
- Solid statistical skills and high proficiency in spoken and written English are mandatory.
- Suitable candidates should have a PhD in psychology, neuroscience, engineering (with a previous focus on neuroscience), or related.
- We are looking for ambitious candidates who aim for a career in academia, for which we will provide ample support. Due to various local funding options, Magdeburg is particularly attractive as neuroscience hub for young scientists on track to their first own group leadership.

What we offer

- A young, interdisciplinary & international team.
- Flat hierarchies & strong early career support.
- State-of-the-art research facilities, including MEG and 7 T MRI scanner.
- Methodological support by leading experts.
- No obligation to teach (but possible if desired).
- Possibility to present data at several national and international conferences.
- Employment, remuneration and social benefits according to the collective agreement for the public service of the federal states (TV-L)

- Equal opportunities and the compatibility of career and family as part of our personnel policy.

The **Otto-von-Guericke University** and **Leibniz Institute for Neurobiology (LIN)** have a long tradition of **world-leading research on learning and memory**, both in animals and humans. The labs of Dr Azañón and Dr Stenner have first-rate access to Magdeburg's **excellent, state-of-the-art facilities for non-invasive human electrophysiology and neuroimaging**, including MEG, EEG, TMS, 7T, 3T MRI (all on the same campus where the LIN is located, and supported by expert staff). Close collaboration with Neurology and Stereotactic Neurosurgery enables systematic invasive human electrophysiology and **studies involving clinical populations**.

The successful candidate will be a full member of the **Collaborative Research Centre (CRC) 1436 "Neural Resources of Cognition"**. The CRC includes an exciting and very active Graduate School, which offers a great program of retreats, lecture series, and workshops that focus on scientific topics, methods, and career development. This gives the members of the graduate school abundant opportunities to get in touch with all the other labs that are part of the CRC, as well as potential future employers from industry and science. In addition, there is frequent exchange among all members of the CRC at the yearly retreats and other assemblies.

The Magdeburg neuroscience community provides a vibrant, international, highly inspiring, friendly and supportive research environment. Dr Azañón's and Dr Stenner's labs hold weekly joint lab meetings, in addition to regular department and institute meetings, and provide a **supportive, aspiring, and friendly atmosphere**. Magdeburg is a growing, intriguing city with lots of activities beyond work (second greenest city in Germany) and a strong, friendly academic community.

Terms & conditions

The position is offered for a duration until end of December 2028 (in accordance with the availability of funds and individual requirements). The preferred starting date is **February 2025**, though this is open to negotiation. **Applications will be accepted until the position is filled.** The salary is based on TV-L E 13 by 50 % at the Otto von Guericke University. **You will receive a second contract (also TV-L E 13 50%) due to the project constellation at Leibniz-Institute for Neurobiology** (https://www.lin-magdeburg.org/you-and-lin/vacancies), **so that you will be employed on a 100% contract in total.**

How to apply

Send a single PDF-file with 1) Cover letter (max 1.5 pages) providing a description of previous and current research work and achievements, research interests and, **importantly, motivation to enter this particular project** and pursue a career in academia; 2) Curriculum vitae, including a list of publications; 3) contact details of two scientists who can provide references.

Review of the applications will start on **January 7th 2024**, until the position is filled

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We are committed to a comprehensive policy of Equal Opportunities in employment and research. We welcome all applications - regardless of gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.