Postdoc in cognitive neuroscience

Department of Linguistics, Cognitive Science and Semiotics within the School of Communication and Culture at Aarhus University invites applications for a postdoctoral position in cognitive neuroscience. The position is affiliated with the research project '<u>The re-integration of the cerebellum</u>' funded by the Independent Research Fund Denmark (see more <u>here</u>).

The postdoctoral researcher position is a full time and fixed-term position. The position begins on 1 September 2025 or as soon as possible thereafter until 29 February 2028. The School of Communication and Culture is committed to diversity and encourages all qualified applicants to apply regardless of their personal background. Project

Building precise and accurate sensory expectations relies on the cerebellum. In the current project, we investigate not only the role of the cerebellum, but also that of the basal ganglia and the thalamus in building precise and accurate sensory expectations. We do this by investigating patients with deep brain stimulation, such as Parkinson's disease and essential tremor, using a combination of behavioural paradigms, magnetoencephalography and recording of local field potentials.

The project is carried out in collaboration with the <u>Center of Functionally Integrative</u> <u>Neuroscience</u> (see more <u>here</u>) and the Department of Neurosurgery at Aarhus University Hospital, which houses state-of-the-art systems for recording magnetoencephalography (SQUIDs and optically pumped magnetometers), local field potentials (<u>Percept™</u> neurostimulator) and for acquiring magnetic resonance images. Postdoctoral researcher position

Your main tasks will consist of

• planning, running and analysing experiments including healthy controls,

Parkinson's disease patients and essential tremor patients measured with

magnetoencephalography and local field potentials acquired with deep brain neurostimulators (Percept[™])

- designing, planning, running and analysing behavioural experiments, in collaboration with the Principal Investigator, that unfold the role of how accurate and precise temporal sensory expectations may inform behaviour
- presenting results at conferences and publishing in international journals.

Teaching and supervision

As a postdoctoral researcher in cognitive neuroscience your position is primarily research-based, but it will also involve a small degree of teaching and supervision. To that end, the successful applicant will be expected to take part in the department's teaching and supervision activities and to teach and supervise on <u>BSc</u> or <u>MSc</u> levels. Relevant courses could for example be *Cognitive Neuroscience* and *Advanced Cognitive Neuroscience*. The successful applicant is expected to teach one of these courses once during the employment period

Given the international focus of the degree programme, the successful applicant will be expected to teach in English.

Qualifications

Applicants must have a PhD degree or must document equivalent qualifications in a relevant field related to cognitive neuroscience. Applicants must be able to document, relevant to the position:

· an internationally oriented research profile within cognitive neuroscience as

documented by a PhD dissertation and/or research publications

- · experience in the self-directed management of research projects
- experience of acquisition and analysis of EEG or MEG data or the documented ability to quickly acquire new methods and skills
- · skills in programming and statistics for experimental research
- teaching experience equivalent to that attained through a PhD degree, as documented by a <u>teaching portfolio</u> (or equivalent documentation of teaching experience and qualifications)

Application Deadline: 20 March 2025

Faculty: Faculty of Arts

Institute/Faculty: School of Communication and Culture

Academic contact

person: Lau Møller Andersen Lektor Imandersen@cfin.au.dk +4587169032

Vacant positions:

Hours per week: 37

Number of months: 30

Expected date of accession: 01/09/2025

• excellent communication and interpersonal skills, in order to engage productively both within the research team and with clinicians and patients.

Furthermore, it will be considered an advantage if applicants can document

- a track record of research publications of a high international standard commensurate with the length of the applicant's academic career
- experience of participation in national and international research networks
- time spent abroad working at one or more internationally recognised research institutions.
- experience working with deep brain stimulation or analysis of data acquired with deep brain stimulation
- · experience working with patients with Parkinson's disease or essential tremor

In your application, please provide documentation in your research statement showing how your profile and skills fit those required for the present project on sensory expectations and the cerebellum. Please also include at least one idea for an experiment in this field, including a hypothesis and the tools and methods you would use for running and analysing this experiment (maximum three pages in total). Make sure that this experiment involves a behavioural component that would be interesting to investigate in its own right.

Please note that although the application process can be completed on the Aarhus University system without uploading publications or a teaching portfolio, applications that do not include uploaded publications (maximum two) will not be considered.

Although the Aarhus University application system includes an option to upload letters of recommendation, please do not include letters of recommendation or references with the application. Applicants who are invited to an interview may be asked to provide references.

Work environment

Active participation in the daily life of the department is a high priority, and we emphasise the importance of good working relationships, both among colleagues and with our students. In order to maintain and develop the department's excellent teaching and research environment, the successful applicant is expected to be present at the department on a daily basis.

We respect the balance between work and private life and strive to create a work environment in which that balance can be maintained. You can read more about <u>family</u> and work-life balance in Denmark.

Aarhus University also offers a <u>Junior Researcher Development Programme</u> targeted at career development for postdoctoral researchers at AU.

International applicants

International applicants are encouraged to read about the <u>attractive working conditions</u> and other benefits of working at Aarhus University and in Denmark, including healthcare, paid holidays and, if relevant, maternity/paternity leave, childcare and schooling. Aarhus University offers a wide variety of services for international researchers and accompanying families, including a <u>relocation service</u> and an <u>AU</u> <u>Expat Partner Programme</u>. You can also find information about the <u>taxation aspects of</u> <u>international researchers' employment by AU</u>.

The department

The place of employment is Department of Linguistics, Cognitive Science and Semiotics, Jens Chr. Skous Vej 2, 8000 Aarhus C, Denmark.

Prospective applicants are invited to view the department's website.

School of Communication and Culture

The school is a part of the Faculty of Arts. You will find information about the school and its <u>research programmes</u>, <u>departments</u>, and diverse activities on its <u>website</u>. Contact

For further information about the position, please contact the principal investigator, Associate Professor, Lau Møller Andersen, <u>Imandersen@cc.au.dk</u>,

If you need help uploading your application or have questions about the recruitment process, please contact Arts HR support by email: <u>hsi@au.dk</u>.

Qualification requirements

Applicants should hold a PhD or equivalent academic qualifications. **Formalities**

The Faculty of Arts refers to the Ministerial Order on the Appointment of Academic Staff at Danish Universities (the Appointment Order).

- Appointments shall be in accordance with the <u>collective labour agreement</u> <u>between the Danish Ministry of Taxation and the Danish Confederation of</u> <u>Professional Associations</u>.
- Further information on qualification requirements and job content may be found in the <u>Memorandum on Job Structure for Academic Staff at Danish Universities</u>.
- Further information on the application and supplementary materials may be found in <u>Application Guidelines</u>.
- The application must outline the applicant's motivation for applying for the position, attaching a curriculum vitae, a teaching portfolio, a complete list of

published works, copies of degree certificates and examples of academic

production (mandatory, but no more than five examples). Please upload this

material electronically along with your application.

Aarhus University also offers a junior researcher development programme targeted at career development for postdocs at AU. You can read more about it here: <u>https://talent.au.dk/junior-researcher-development-programme/</u>

If nothing else is noted, applications must be submitted in English. The application deadline is at 11.59 pm Danish time (same as Central European Time) on the deadline day.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants. Shortlists may be prepared with the candidates that have been selected for a detailed academic assessment. A committee set up by the head of school is responsible for selecting the most qualified candidates. See this link for further information about shortlisting at the Faculty of Arts: <u>shortlisting</u>

Faculty of Arts

The Faculty of Arts is one of five main academic areas at Aarhus University.

The faculty contributes to Aarhus University's research, talent development, knowledge exchange and degree programmes.

With its 700 academic staff members, 200 PhD students, 9,000 BA and MA students, and 1,500 students following continuing/further education programmes, the faculty constitutes a strong and diverse research and teaching environment.

The Faculty of Arts consists of the School of Communication and Culture, the School of Culture and Society and the Danish School of Education. Each of these units has strong academic environments and forms the basis for interdisciplinary research and education.

The faculty's academic environments and degree programmes engage in international collaboration and share the common goal of contributing to the development of knowledge, welfare and culture in interaction with_society.

Read more at arts.au.dk/en

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at <u>www.international.au.dk/</u>