

Postdoc in Single-cell transcriptomics of the immune response in Parkinson's disease

The Department of Biomedicine at Faculty of Health at Aarhus University invites applications for a position as Postdoc in the field of Transcriptomic analysis of the immune response in Parkinson's disease as per 1 July 2026 or as soon as possible thereafter. The position is a fixed-term full-time position for 1 year, with possibility to prolong that to up to 2 years more).

The Department of Biomedicine prioritizes diversity and a good work environment, as this is a prerequisite for groundbreaking research. In a diverse and international research environment, dedicated employees are looking to generate new knowledge within biomedical research areas such as infection and inflammation, membranes, neuroscience and personalized medicine. The Department of Biomedicine provides research-based teaching of the highest quality and is responsible for a large part of the medical degree programme. Academic staff contribute to the teaching. English is the preferred language in the laboratory, at meetings and at seminars. The department employs approx. 500 people from all over the world, and they make use of the department's modern laboratory-, core- and animal facilities. The Department of Biomedicine focuses on innovation, entrepreneurship and collaboration with business and industry, and numerous researchers from the department have established companies to develop new medicinal treatments founded in professional scientific basic research. You can read more about the department [here](#) and about the faculty [here](#).

PACE - Lundbeck Foundation Parkinson's Disease Research Center

You will be also part of PACE, the newly established Lundbeck Foundation Parkinson's Disease Research Center, which is a translational research center focused on studies of Lewy body diseases. PACE consists of a close-knit community of world-leading research groups in basic and clinical Parkinson's disease research, wherein a number of novel group leaders will be embedded. The center comprises research programs in clinical research and trials, longitudinal cohort building, multi-modal imaging, biobanks, epidemiology, neuropathology, wearables and biotech, experimental disease models including animal and cell models, and basic science programs in alpha-synuclein patho-mechanisms, neuroimmunology, and biomarker discovery. In two years, we expect to comprise 7-9 group leaders totaling 70+ researchers, students, and support staff. PACE is part of and collaborate closely with both Aarhus University, which is consistently ranked as one of the world's top 100 universities, and Aarhus University Hospital, which in 2024 was elected Denmark's best hospital for the 15th time. PACE's mission is to take research in Parkinson's disease to the highest level possible and to improve life for people with Parkinson's disease or other neurodegenerative disorders. We focus on discovering and validating novel innovative tools, biomarkers and disease-modifying mechanisms, which within a 10-year time frame will be applied in clinical trials. You can read more about PACE [here](#).

About the research project

Candidates will be part of a research group investigating the immune system in the neurodegenerative process in Parkinson's disease. The candidate will use different bioinformatic approaches to investigate and analyze omics data on immune response (central and peripheral) in people with Parkinson's Disease, using both internally generated data as well as using published external databases.

You will be employed in the project *Immune related biomarker and targets in Parkinson's disease – Does autoimmunity occur in Parkinson's disease?* This project is funded through the externally financed research grant under the ODIN frame. The project is joined between two labs at the Health Faculty and some industrial partners. Close interaction and constant scientific exchange with the teams and the collaborators (both clinicians and private industry) will be essential for the advancement of the project.

Your job responsibilities

As Postdoc in Biomedicine your position is primarily research-based but may also involve teaching assignments. You will contribute to the development of the department through research of high international quality. In your daily work, you will work closely with colleagues on your project, where you will receive supervision and guidance.

The candidate's main responsibility will be the bioinformatic analysis of omics data. You will do so in a project focused on the analyses of data generated from patient-derived peripheral blood cells using techniques such as single-cell RNA sequencing, BCR and TCR sequencing. Similar data from public databases in Parkinson's disease

Application Deadline:
21 April 2026

Institute/Faculty:
Department of
Biomedicine

Faculty:
Faculty of Health

Academic contact person:
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Vacant positions:
1

Number of months:
12

Hours per week:
37

Expected date of accession:
01/07/2026

and other neurodegenerative disease will also be explored during the project. The omics data will also be analyzed with regard to clinical markers. In addition, you will work together with a PhD student in charge of the *ex-vivo* cell experiments to investigate autoreactive T cells in the blood cells from PD patients. You are expected to keep updated with the latest literature on multi-omics analysis in brain diseases, particularly Parkinson's disease and to contribute scientifically to other projects in the lab. For this you will work closely with the rest of the team addressing different question in the neuroimmune aspect of Parkinson's disease.

You should be able to work independently and responsibly, to critically analyze data, prepare and communicate results, prepare manuscripts, and publish research findings in high-quality journals. You are expected to keep updated regarding literature on the field. In addition, you will also supervise undergraduates laboratory projects during your appointment in the lab.

You will report to the Professor Marina Romero-Ramos

Your competences

We are seeking a highly motivated and independent postdoctoral researcher with a background/PhD in computational science or alternatively on life science and proven expertise on the analysis of omics data, preferably single cell transcriptomics, next generation sequencing, and analysis of omics data in disease conditions. The postdoctoral fellow will work in close collaboration with other fellows and students in the lab, analyzing patients' immune cells, and collaborative skills will be highly important for success in carrying out the planned research. Below is listed experience and skills that will be considered:

- Proficiency in statistical and programming languages such as Perl, Python, and/or R.
- Experience working in a Linux-based high-performance computing environment.
- Prior experience with analysis of NGS and single-cell sequencing data, preferably experience with BCR and TCR sequencing analysis.
- Sound understanding of single-cell biology, recent technologies and data science.
- Experience with cloud computing platforms will be an advantage
- Experience with wet-lab protocols RNA-seq and scRNAseq is preferred but not needed.

The successful candidate is expected to have strong skills in English, show mobility in his/her CV, and to have a demonstrated scientific track record, including at least one first author publication in a peer-reviewed scientific journal within a relevant field. Prior teaching experience will be also considered a plus.

As a person, you are ambitious, take ownership and possess good communication and interpersonal skills.

In order to be assessed as qualified for a Postdoc position, you must meet [these academic criteria](#).

Shortlisting will be used.

Terms of employment

- Appointment as a postdoc requires academic qualifications at PhD level.
- Further information on the appointment procedure can be found in the [Ministerial Order on the Appointment of Academic Staff at Universities](#).
- The appointment is in accordance with the [Danish Confederation of Professional Associations](#) (Akademikerne).
- Remuneration is in accordance with the above, and the [Salary agreement catalogue for staff at Health](#).
- The yearly base salary for a fulltime postdoc is between DKK 484.214,84 and DKK 538.720,20 depending on the years of working experience after achieved MSc degree. The base salary includes a position related supplement and pension (17.1 %). Additional supplement(s) for special qualifications can be negotiated. Authorisation supplement(s) will be granted, if relevant for the position. Your

local eligible trade union representative at Aarhus University negotiates your salary on your behalf.

- Researchers recruited from abroad are offered a [special researcher tax scheme](#) with a lower tax rate.
- Further information on qualification requirements and job description can be found in the [Ministerial Order on Job Structure for Academic Staff](#)

Application

Your application must include the following:

- Motivated application
- Curriculum Vitae
- Diploma
- [Template for applicant - postdoc](#)
- A list of publications
- A teaching portfolio. We refer to [Guideline on the use of teaching portfolios](#)
- A maximum of five of the publications of greatest relevance to the job may be submitted (optional)
- Research plan can be uploaded (optional)
- Coauthor statement(s) can be uploaded (optional)
- References/recommendations can be uploaded separately in the e-recruitment system (optional)

We refer to the faculty's [Guidelines for applicants](#).

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.

International applicant?

Aarhus University offers a broad variety of services for international researchers and accompanying families, including assistance with relocation and career counselling to expat partners. Please find more information about the International Staff Office and the range of services [here](#). Aarhus University also has a Junior Researcher Association and offers career development support. You can read more about these resources [here](#).

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 37,000 students (FTEs) and 8.700 employees and has an annual revenue of EUR 1.106 billion. Learn more at www.international.au.dk/