Postdoc in Biological Epidemiology

Application Deadline:
17 March 2025

Faculty:
Faculty of Heatlh

Institute/Faculty:
Department of Public Health

Academic contact person:
Zeynep Yilmaz
Seniorforsker
zyilmaz.ncrr@au.dk

Vacant positions:
1

Hours per week:
37

Number of months:
36

Expected date of accession:
01/07/2025

The National Centre for Register-based Research at Faculty of Health at Aarhus University invites applications for a position as Postdoc in the field of Biological Epidemiology as per 1 July 2025 or as soon as possible thereafter. The position is a fixed-term full-time position for 3 years.

The National Centre for Register-based Research is a section under the Department of Public Health, financed mainly by external research funds. The Centre houses an internationally acknowledged group of researchers in psychiatric epidemiology and genetics, regularly publishing scientific articles. Read more here. In addition to its own research, the Centre is also involved in data management and the development of methods for analysis of register data. The Centre has 64 employees, including 32 statisticians, 7 PhD students and 3 data managers. More information on the National Centre for Register-based Research here.

As a postdoc at the Department of Public Health, you will be part of an internationally recognised department, where we work together to promote public health through research into areas that can prevent, treat and alleviate disease. We are involved in broad collaboration both internally and externally. We share our knowledge with citizens, decision-makers, business and industry, practitioners and other researchers – in municipalities, in the regions and both nationally and internationally. The department either contributes to or is responsible for teaching in medicine, public health science, sport science, optometry and nursing. At the Department of Public Health, you will have approx. 200 colleagues, including ninety academic staff members and a corresponding number of PhD students. We work closely with one another across different fields of study and prioritise a healthy work environment. The general tone among colleagues is informal. You can read more about the department here and about the faculty here.

About the research project

The project examines the interplay between biology and environment to predict eating disorder risk and course through a comprehensively analysis of neonatal biomarkers (metabolic, immune, and neurotrophic), epidemiological factors from Danish registers, and genetics. Specific analyses will comprise developing biomarker profiles in eating disorder cases vs controls, assessing association between early life risk factors and biomarker measures, applying polygenic scores to predict biomarker profiles, and developing models integrating biomarker, epidemiological, and genetic data to predict risk. As a secondary aim, multifactorial models will be developed to predict eating disorder course by investigating the role of biomarkers on diagnostic stability, comorbidities, illness severity, and medication response. Upon successful completion, this project has the potential to identify distinct subgroups of individuals with eating disorders based on underlying biology, ultimately informing precision treatment and prevention strategies.

Your job responsibilities

As Postdoc in Biological Epidemiology, 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.
Your main tasks will consist of:

- Independent research of high international quality, including publication.
- Large-scale analysis of protein (e.g., metabolic, immune) biomarkers.
- Performing genome-wide association analysis and polygenic scoring.
- Analyzing epidemiological data (e.g., time-to-event models) from Danish registers on Denmark Statistics.
- Devising multifactorial prediction models using machine learning algorithms.

You will report to the Prof. Preben Bo Mortensen, Head of the National Centre for Register-based Research.

Your competences

You have academic qualifications at PhD level, for example within the following areas of metabolomics, biology, computational biology, immunology, biological epidemiology, statistical genetics, or a related quantitative field. You must have strong computational and statistical skills and significant experience with analyzing large-scale biological datasets, ideally involving proteins.

As a person, you have good interpersonal skills, are inclusive and team-oriented, and able to contribute to a good work environment. We expect you to be fluent in oral and written English.

In order to be assessed as qualified for a Postdoc position, you must meet these academic criteria.

Shortlisting will be used.

Questions about the position

If you have any questions about the position, please contact Zeynep Yilmaz, Associate Professor, email: zyilmaz.ncrr@au.dk.

Your place of work will be the National Centre for Register-based Research, Fuglesangs Allé 26, DK-8210 Aarhus V, Denmark.

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 supplemement(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 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/