

# Postdoctoral Researcher in Quantitative Proteomics and Post-translational Modifications

Applications are invited for a Postdoctoral Researcher position in quantitative proteomics at the Department of Molecular Biology and Genetics (MBG), Aarhus University, Denmark.

The position is available in the Nielsen Lab, which focuses on understanding how post-translational modifications (PTMs) such as ADP-ribosylation networks regulate proteome states and cellular function.

The position is initially for two years with the possibility of extension.

We are seeking a highly motivated researcher who is excited to play a key role in developing an ambitious research programme and establishing advanced proteomics workflows to study regulatory protein states.

## Expected start date and duration of employment

The position is a two-year postdoctoral appointment with the possibility of extension.

The expected start date is 1 July 2026.

## Job description

The successful candidate will join a research programme focused on understanding how post-translational modification (PTM) networks regulate protein function and cellular behaviour.

The project combines state-of-the-art mass spectrometry-based proteomics, quantitative PTM analysis, and mechanistic cell biology to uncover how regulatory proteome states control fundamental biological processes such as genome maintenance and cellular stress responses.

The postdoctoral researcher will contribute to both methodological development and biological discovery, and will play an important role in advancing ongoing research directions while initiating independent projects.

Primary responsibilities include:

- Developing and applying advanced MS-based proteomics workflows
- Investigating regulatory PTMs such as ADP-ribosylation and related signalling mechanisms
- Designing and executing independent research projects
- Contributing to the development of experimental workflows and analytical strategies
- Collaborating with national and international partners
- Contributing to high-impact publications and research grant development

The position offers the opportunity to contribute to shaping research directions and developing new experimental approaches within regulatory proteomics.

Candidates with a strong background in molecular or cell biology and an interest in applying proteomics approaches are also encouraged to apply.

## Your profile

Applicants should hold a PhD in proteomics, molecular biology, biochemistry, or a related field.

We are particularly interested in candidates with experience in one or more of the following areas:

- Mass spectrometry-based proteomics
- Post-translational modification analysis
- Quantitative proteomics workflows
- Cell biology or molecular biology
- ADP-ribosylation or PARP biology

**Application Deadline:**  
30 April 2026

**Institute/Faculty:**  
Department of  
Molecular Biology and  
Genetics

**Faculty:**  
Faculty of Natural  
Sciences

**Academic contact  
person:**  
Michael Lund Nielsen  
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**Vacant positions:**  
1

**Number of months:**  
24

**Hours per week:**  
37

**Expected date of  
accession:**  
01/07/2026

Experience with high-resolution LC-MS systems, PTM enrichment strategies, or large-scale proteomics experiments will be considered an advantage.

The ideal candidate is:

- Scientifically ambitious and highly motivated
- Able to work independently and take ownership of research projects
- Interested in driving projects forward and contributing to an ambitious research environment
- Strong in scientific communication and publication

### **Who we are**

The position will be based in the Nielsen Lab at the Department of Molecular Biology and Genetics (MBG), Aarhus University.

Our research focuses on how post-translational modification networks regulate protein function and cellular behaviour, with particular emphasis on understanding regulatory proteome states.

By combining technological innovation in quantitative proteomics with mechanistic cell biology, we aim to uncover how PTM systems such as ADP-ribosylation control fundamental biological processes.

The research builds on recent advances in regulatory proteomics and PTM biology and aims to generate mechanistic insights into how complex PTM networks regulate cellular function.

MBG provides a highly collaborative and interdisciplinary environment, with strong expertise in RNA biology, structural biology, enzymology, glycobiology and quantitative proteomics.

More information:

<https://mbg.au.dk>

### **What we offer**

We offer:

- The opportunity to work in an ambitious and growing research programme within regulatory proteomics
- Access to state-of-the-art mass spectrometry infrastructure
- A highly interdisciplinary and collaborative research environment
- Opportunities for international collaborations and high-impact publications
- Strong support for career development and scientific independence
- A dynamic workplace at one of Europe's leading research universities

### **Place of work and area of employment**

Department of Molecular Biology and Genetics, Aarhus University, Universitetsbyen 81, 8000 Aarhus C, Denmark.

### **Contact information**

For further information, please contact:

Professor Michael L. Nielsen, Department of Molecular Biology and Genetics, Aarhus University, Email: [mln@mbg.au.dk](mailto:mln@mbg.au.dk).

### **Application procedure**

Shortlisting is used. This means that after the deadline for applications – and with the assistance from the assessment committee chairman, and the appointment committee if necessary, – the head of department selects the candidates to be evaluated. All applicants will be notified whether or not their applications have been sent to an expert assessment committee for evaluation. The selected applicants will be informed about the composition of the committee, and each applicant is given the opportunity to comment on the part of the assessment that concerns him/her self.

### **Letter of reference**

If you want a referee to upload a letter of reference on your behalf, please state the referee's contact information when you submit your application. We strongly recommend that you make an agreement with the person in question before you enter the referee's contact information, and that you ensure that the referee has enough time to write the letter of reference before the application deadline. Unfortunately, it is not

possible to ensure that letters of reference received after the application deadline will be taken into consideration.

If you wish to add a referee **after** you have submitted your application, you must send this person's details (name, job title, place of work, and email address) as well as the name of the position you have applied for to: [HR.Nattech@au.dk](mailto:HR.Nattech@au.dk)

#### **Formalities and salary range**

Natural Sciences refers to the [Ministerial Order on the Appointment of Academic Staff at Danish Universities under the Danish Ministry of Science, Technology and Innovation](#).

The application must be in English and include a curriculum vitae, degree certificate, a complete list of publications, a statement of future research plans and information about research activities, teaching portfolio and verified information on previous teaching experience (if any). Guidelines for applicants can be found [here](#).

Appointment shall be in accordance with the collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations. Further information on qualification requirements and job content may be found in the [Memorandum on Job Structure for Academic Staff at Danish Universities](#).

Salary depends on seniority as agreed between the Danish Ministry of Taxation and the Confederation of Professional Associations.

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.

Research activities will be evaluated in relation to actual research time. Thus, we encourage applicants to specify periods of leave without research activities, in order to be able to subtract these periods from the span of the scientific career during the evaluation of scientific productivity.

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners. Read more [here](#). Please find more information about entering and working in Denmark [here](#).

Aarhus University also offers a Junior Researcher Development Programme targeted at career development for postdocs at AU. You can read more about it [here](#).

At the Faculty of Natural Science at Aarhus University, we strive to support our scientific staff in their career development. We focus on competency development and career clarification and want to make your opportunities transparent. On [our website](#), you can find information on all types of scientific positions, as well as the entry criteria we use when assessing candidates. You can also read more about how we can assist you in your career planning and development.

*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/](http://www.international.au.dk/)*