

# Post doc in anaerobic structural microbiology

Are you interested in how microbes promote biochemical reactions under anaerobic conditions, and can you contribute to the development of methods for anaerobic protein purification and structure determination by cryo-EM? Then the Department of Molecular Biology invites you to apply for a 3-year post doc. position in structural microbiology.

## Expected start date and duration of employment

This is a 3-year position from 1 May 2025, or as soon possible thereafter.

## Job description

You will be contributing to the setup and development of methods for anaerobic protein expression and growth, using bioreactors and anaerobic glove boxes. The Department has recently acquired advanced instruments to allow for purification and characterisation of Fe-S containing enzymes under anaerobic conditions.

The successful candidate will be responsible for setting up and maintaining the anaerobic biochemistry lab, which also includes systems for chromatographic purification and plunge freezing of biological samples for cryo-EM analysis. Cryo-EM data collection will be carried out at the EMBION facility at Aarhus University.

The successful candidate will also serve as facility manager for the anaerobic lab and entry point for students and researchers wishing to use the equipment. Therefore, part of the time will be dedicated to instruction of users.

## Your profile

Applicants should hold a PhD in molecular biology, biotechnology, molecular microbiology, structural biology, or similar, and ideally have documented experience with anaerobic protein work using glove boxes. Experience with structural biology, in particular single particle cryo-EM, and microbiology is a must.

Since you will be part of a dedicated, scientific research group, great collaboration and communications skills in English, both oral and in writing, are essential. Good organisational and management skills are likewise required for the facility manager aspect of the job. On the personal level, we are looking for an ambitious and open-minded person, who enjoys interaction with colleagues and fellow scientists and students. Good teaching skills are also an advantage in connection with the instruction of users for the facility.

## Who we are

The postdoc will be affiliated to the Department of Molecular Biology and Genetics.

The Department of Molecular Biology and Genetics is part of the Faculty of Natural Sciences, Aarhus University and comprises research within the areas of Plant Molecular Biology, Neurobiology, RNA Biology and Innovation, Protein Science, Cellular Health, Intervention and Nutrition. There are currently 75 full time scientific staff and 95 PhD students. The department is responsible for two educations: Molecular Biology and Molecular Medicine with a yearly uptake of 160 students in total.

Please refer to <http://mbg.au.dk/> for further information about The Department of Molecular Biology and Genetics and to <https://nat.au.dk/> and <http://www.au.dk/> for information on Faculty of Natural Sciences and Aarhus University, respectively.

The research group headed by Prof. Ditlev E. Brodersen uses microbiology, biochemistry, and structural biology to study mechanisms underlying bacterial survival, including during nutritional starvation and upon interactions with bacteriophages.

## What we offer

The research group and department offer:

- a well-developed research infrastructure, laboratories and access to shared equipment through core facilities that include mass spectrometry, biophysics, and imaging.
- an exciting interdisciplinary environment with many international colleagues.

**Application Deadline:**  
20 March 2025

**Faculty:**  
Faculty of Natural Sciences

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

**Academic contact person:**  
Ditlev Egeskov Brodersen  
Professor  
deb@mbg.au.dk  
+4521669001  
+4521669001

**Vacant positions:**  
1

**Hours per week:**  
37

**Number of months:**  
36

**Expected date of accession:**  
01/05/2025

- a research culture based on trust and psychological safety, encouraging lively, open and critical interaction within and across different fields of research.
- a work environment with close working relationships, networking and social activities.
- a workplace characterised by professionalism, equality and a healthy work-life balance.

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

The place of work is Department of Molecular Biology and Genetics, Universitetsbyen 81, DK-8000 Aarhus C, Denmark.

### **Contact information**

For further information, please contact: Professor Ditlev E. Brodersen, email: deb@mbg.au.dk, phone: +45 21669001.

### **Deadline**

Applications must be received no later than 20 March 2025.

### **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. Once the recruitment process is completed a final letter of rejection is sent to the deselected applicants.

### **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

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