

Postdoctoral Researcher - Structural Spectroscopy of Amyloid Aggregates

SurfLab at Aarhus University seeks to hire a postdoc to explore protein misfolding and structural heterogeneity in complex biological samples using 2D-infrared spectroscopy.

Protein aggregates play a central role in several human diseases, yet their structural diversity remains poorly understood. In this project, you will apply ultrafast 2D-infrared spectroscopy to investigate molecular signatures in biologically and clinically relevant samples for a deeper understanding of protein structure/function relationships in health and disease.

The starting date is May 1, 2026 and the duration of the employment will be 24 months.

The place of work is Langelandsgade 140, 8000 Aarhus C, and the area of employment is the Department of Chemistry, Aarhus University and related departments.

Job description/research project/research area

A postdoc in our team will investigate the structural complexity of protein aggregates using advanced ultrafast spectroscopies. Jointly, the Clinical Neuroanatomy and Biobanking (CNAB) at Amsterdam UMC and SurfLab at Aarhus University have recently developed new approaches combining two-dimensional infrared (2DIR) spectroscopy and biomedical sampling techniques to probe protein structure in complex biological and medical environments. This opens up opportunities to tackle fundamental questions such as: (1) Can subtle structural differences between aggregates and disease stages and type be resolved spectroscopically? And (2) What molecular signatures correlate with neuropathology?

Answers to these questions will contribute to our understanding of protein misfolding and aggregation in biomedically relevant settings, with implications for early diagnostics and, in the future, possible disease prevention.

Researchers in our group benefit from state-of-the-art femtosecond laser systems and a vibrant interdisciplinary community at Aarhus University, including collaborators in biophysics, neurodegeneration, spectroscopy, and computational modeling. You would join a dynamic research environment with an emphasis on international collaboration.

Your profile

Applicants across the disciplines of physics, chemistry and biology are considered for this position. Outside of having a strong motivation to work on ultrafast spectroscopy, postdoctoral fellows should have an interest in working on biomedical problems.

Contact

Further information about the position may be obtained from Associate Professor Tobias Weidner: weidner@chem.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. 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

Application Deadline:
09 March 2026

Institute/Faculty:
Department of
Chemistry

Faculty:
Faculty of Natural
Sciences

Academic contact person:
Tobias Weidner
Lektor
weidner@chem.au.dk
+4593508509

Vacant positions:
1

Number of months:
24

Hours per week:
37

Expected date of accession:
01/05/2026

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/