Postdoc in Translational Antibacterial Innovation

Application Deadline:
03 June 2026

Institute/Faculty:
Department of Biological and Chemical Engineering

Faculty:
Faculty of Technical Sciences

Academic contact person:
Cindrilla Chumduri
Lektor
cindrilla.chumduri@bce.au.dk

Vacant positions:
1

Number of months:
15

Hours per week:
37

Expected date of accession:
01/08/2026

The Department of Biological and Chemical Engineering, Aarhus University, invites applications for a fixed-term postdoctoral position in translational antibacterial innovation. The position is embedded in an Innovation project focused on developing and validating next-generation antibacterial strategies using human-relevant organoid-based infection models.
The position is placed in the Chumduri Lab, Section of molecular and cellular biotechnology and offers an opportunity to work at the interface of infection biology, organoid technology, antimicrobial discovery, and innovation-oriented translational research.

Expected start date and duration of employment

From 1 August 2026 or as soon possible. This is a fixed-term position to end on 31 October 2027.

Job description

The successful candidate will contribute to an innovation-focused project that aims to advance antibacterial strategies from experimental discovery toward translational validation. The project uses advanced organoid-based infection models to evaluate antibacterial efficacy, host responses, epithelial safety, and disease-relevant mechanisms in human-relevant systems.

- Develop, maintain, and apply organoid-based infection models for antibacterial testing.
- Evaluate candidate antibacterial compounds using relevant microbiological, molecular, and cellular assays.
- Study host-pathogen interactions, epithelial barrier responses, inflammatory signalling, and infection-induced cellular changes.
- Generate data packages that support translational decision-making, lead prioritisation, and innovation development.
- Contribute to experimental design, data analysis, documentation, reporting, and preparation of manuscripts and project deliverables.
- Collaborate with interdisciplinary partners across infection biology, biotechnology, chemistry, and innovation support environments.

The position is particularly suited for a motivated researcher who is interested in connecting strong experimental biology with translational project development and innovation-oriented research outputs.

Your profile

Applicants should hold a PhD in biotechnology, molecular biology, infection biology, microbiology, biomedical science, or a closely related field.
The ideal candidate will have strong experimental experience and an interest in translational infection biology. Experience in one or more of the following areas will be considered an advantage:

- Organoid culture, epithelial models, 3D cell culture, or advanced in vitro disease models.
- Host-pathogen interaction studies, bacterial infection models, antimicrobial testing, or microbiology workflows.
- Molecular and cellular biology techniques, including qPCR, immunostaining, microscopy, flow cytometry, or related assays.
- Omics-oriented approaches, including single-cell, spatial, transcriptomic, or bioinformatic analysis.
- Translational research, innovation projects, project reporting, or interdisciplinary collaboration.

Applicants should demonstrate independence, accuracy in experimental work, good communication skills, and the ability to work collaboratively in an international and interdisciplinary research environment.

The Department of Biological and Chemical Engineering at Aarhus University brings together research and teaching across biotechnology, engineering, and health-related sciences. The Section of Molecular and cellular Biotechnology provides a strong interdisciplinary environment for developing biological models, disease technologies, and translational approaches.
The Chumduri Lab focuses on infection, carcinogenesis, and regeneration. The group develops and applies organoid systems, host-pathogen models, single-cell and spatial technologies, and translational experimental platforms to understand disease mechanisms and support development of new therapeutic strategies.
More information: https://bce.au.dk/forskning/forsknings-og-udviklingsomraader/medical-biotechnology/research-groups/infections-carcinogenesis-and-regeneration

The department and research group offer:

- An innovation-oriented postdoctoral project with clear translational relevance.
- Access to advanced organoid, infection biology, molecular biology, and microscopy workflows.
- A dynamic research environment with opportunities for interdisciplinary collaboration.
- Close interaction with academic and innovation-focused partners.
- A workplace characterised by professionalism, equality, openness, and a healthy work-life balance.

The place of work is the Chumduri Lab, Section of Molecular and cellular Biotechnology, Department of Biological and Chemical Engineering, Aarhus University, Gustav Wieds Vej 10C, 8000 Aarhus C, Denmark. The area of employment is Aarhus University with related departments.

Contact information

For further information, please contact: Cindrilla Chumduri, Associate Professor and Head of the Infection, Carcinogenesis and Regeneration Lab, email: cindrilla.chumduri@bce.au.dk.

Deadline

Applications must be received no later than 3rd of June 2026

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

Formalities and salary range

Technical 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.

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/