

Postdoc in Aquaporin-Mediated Transport and Cancer Progression

The Department of Clinical Medicine at Faculty of Health at Aarhus University invites applications for a position as Postdoc in the field of aquaporin-mediated transport and cancer progression as per 1 May 2026 or as soon as possible thereafter. The position is a fixed-term full-time position for 1 year and 8 months.

Department of Clinical Medicine

As a post doc at the Department of Clinical Medicine, you will be part of what is probably the largest health science research department in Denmark. Our clinical research covers all the medical specialities and takes place in close collaboration with the university hospital and the regional hospitals in the Central Denmark Region. We have approx. 30,000 square metres of modern research facilities for experimental surgery and medicine, animal facilities and also advanced scanners at our disposal. The department has overall responsibility for the Master's degree programs in medicine and in molecular medicine. At the department we are approx. 670 academic employees, 500 PhD students and 160 technical/administrative employees who are cooperating across disciplines. As a post doc, you will be working at Aarhus University Hospital or another hospital in the Central Denmark Region. You can read more about the department [here](#) and about the faculty [here](#).

About the research project

The project investigates the regulatory logic of aquaporin trafficking in epithelial cells and its functional relevance in cancer dissemination. A central focus is the mechanistic dissection of AQP2 vesicular shuttling and regulated membrane insertion in renal collecting duct cells. In parallel, the project aims to establish and apply a zebrafish avatar model to examine the role of selected aquaporins in cancer cell invasion and metastatic spread in vivo.

Your job responsibilities

As Postdoc in Aquaporin-Mediated Transport and Cancer Progression 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:

AQP2 trafficking in renal epithelial cells

- Design and execution of mechanistic studies on AQP2 vesicular shuttling and regulated membrane insertion in renal collecting duct cell models.
- Quantitative analysis of aquaporin trafficking dynamics using advanced fluorescence microscopy and 3D image-based vesicle segmentation.
- Molecular engineering of aquaporin constructs to dissect trafficking determinants and regulatory motifs.
- Preparation of manuscripts based on mechanistic trafficking studies.

Zebrafish cancer model

- Establishment, optimisation and application of a zebrafish avatar model for functional assessment of selected aquaporins in cancer cell invasion and metastatic dissemination.
- Microinjection of tumour cells into zebrafish embryos and longitudinal in vivo imaging of dissemination patterns.
- Quantitative analysis of tumour cell spread and metastatic behaviour in vivo.

General academic responsibilities

- Publication of high-quality research in international peer-reviewed journals.
- Supervision of MSc and PhD students.
- Contribution to teaching within cell biology, epithelial physiology and experimental methodology.
- Participation in grant writing and further development of the research field.

You will report to Professor Lene Niemann Nejsum and Researcher Frédéric H. Login.

Your competences

Applicants must hold a PhD in cell biology, membrane physiology, renal physiology or a closely related discipline.

Documented research experience in aquaporin biology is required, including peer-reviewed publications involving mechanistic studies of aquaporin trafficking, regulation or membrane localisation.

The successful candidate must have:

- Demonstrated hands-on experience with AQP2 trafficking studies in epithelial or collecting duct cell models.
- Proven expertise in advanced fluorescence microscopy and quantitative analysis.

Application Deadline:
16 March 2026

Institute/Faculty:
Department of Clinical
Medicine

Faculty:
Faculty of Health

**Academic contact
person:**
Lene Niemann Nejsum
Professor
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+4521163121

Vacant positions:
1

Number of months:
20

Hours per week:
37

**Expected date of
accession:**
01/05/2026

•Practical experience with zebrafish models, including embryo handling and microinjection techniques.

Strong publication record demonstrating experimental independence is expected.

Fluency in written and spoken English is required.

As a person, you are scientifically rigorous, methodologically precise and able to work both independently and collaboratively within a focused research environment.

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 Professor Lene Niemann Nejsum tel.: (+45) 21163121.

Your place of work will be the Department of Clinical Medicine, Palle Juul Jensens Blvd 11, DK-8200 Aarhus N, Denmark.

We expect to conduct interviews in late March.

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 supplement(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/