Postdoc in prostate cancer transcriptomics and molecular diagnostics

Application Deadline:
14 May 2026

Institute/Faculty:
Department of Clinical Medicine

Faculty:
Faculty of Heatlh

Academic contact person:
Karina Dalsgaard Sørensen
Professor
kdso@clin.au.dk

Vacant positions:
1

Number of months:
24

Hours per week:
37

Expected date of accession:
01/09/2026

The Department of Clinical Medicine at Faculty of Health at Aarhus University invites applications for a position as Postdoc in the field of prostate cancer transcriptomics and molecular diagnostics as per 1 September 2026 or as soon as possible thereafter. The position is a fixed-term full-time position for 2 years.

Department of Clinical Medicine

As a postdoc 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 postdoc, 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

There is a need for new molecular biomarkers to inform better and more personalized care of prostate cancer (PC). This project will investigate long non-coding RNAs (lncRNAs) as a new promising source of PC aggressiveness markers, and is hosted within the prostate cancer research group at MOMA, led by professor Karina Dalsgaard Sørensen (link). The project will include analyses of tumor RNA-sequencing data from large cohorts of PC patients with the aim to characterize coding- as well as lncRNA expression patterns in aggressive vs. indolent tumors. In the project, you will also optimise and use spatial transcriptomics methods (CosMx, Visium or similar) to study lncRNA and cancer/immune/stromal cell interactions in the tumor microenvironment of PC in detail. Furthermore, the project aims to assess the diagnostic/prognostic biomarker potential of top candidate lncRNAs in independent PC patient cohorts. The project will also include RNA-seq analyses of urine EVs for minimally invasive biomarker testing, and integration with other 'omics' data types generated in the same cohorts, e.g. TCR repertoire, microRNA and ctDNA profiles. Hence, the work will mainly involve bioinformatics analyses of sequencing data from patients (generated in house and combined with public/consortium data) and to a lesser extent experimental laboratory work. As our research focus is translational, all results from the molecular and bioinformatics analyses will be compared with relevant clinical data from the patients, e.g. tumor stage/grade and survival. The position will also include co-supervision of PhD, MSc, MD and/or BSc students in the prostate cancer research group at MOMA.

Your job responsibilities

As Postdoc in prostate cancer transcriptomics and molecular diagnostics 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:

- Independent research of high international quality, including publication.
- Analysis of RNA sequencing data from PC patient cohorts.
- Spatial transcriptomics (Visium/CosMx/similar) analyses of the PC tumor microenvironment with the aim to study RNA, lncRNA and cancer/immune/stromal cell interactions in detail.
- Assess the diagnostic/prognostic biomarker potential of top candidate lncRNAs in independent patient cohorts.
- Data integration with other biomarker types/omics data, e.g. WGS, TCR-seq, microRNA, and ctDNA.
- Molecular profiling analyses of EVs for minimally invasive biomarker testing.
- Active participation in research group meetings and journal clubs.

- Co-supervision of students in the prostate cancer research group at MOMA

You will report to the Head of Department Jørgen Frøkiær. Your daily manager at MOMA will be Professor Karina Dalsgaard Sørensen.

Your competences

You have academic qualifications at PhD level, for example within the following areas: molecular medicine, molecular biology, bioinformatics, medicine or similar.

The following professional and personal qualifications will be advantageous:

- Published peer-reviewed articles in international journals.
- Research experience in cancer transcriptomics, genomics, epigenomics, and/or immune profiling.
- Knowledge of prostate cancer biology and experience with clinical translational research
- Proficiency in the R programming language (or similar) and experience with high performance computing clusters, e.g. genomeDK.
- Proficiency in medical statistical data analysis (using R or similar).
- Experience with NGS methodologies and liquid biopsy analyses, e.g. EVs, ctDNA, TCR-seq.
- Experience with Redcap database/biobank management and coordination with clinical sites.
- Applicants who possess both significant wet lab and computational experience will be prioritised.
- Rich in initiative and a strong motivation for research.
- Good collaborative skills.
- Good communication skills.

As a person, you have good interpersonal skills, are inclusive and team-oriented and able to contribute to a good work environment. We expect you to be fluent in oral and written English.

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 Karina Dalsgaard Sørensen tel.: (+45) 78455316.

Your place of work will be the Department of Molecular Medicine (MOMA), Brendstrupgaardsvej 21, DK-8200 Aarhus N, Denmark.

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 supplemement(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 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/