

Postdoc in Spatial Transcriptomics in Cancer

The Department of Biomedicine at Faculty of Health at Aarhus University invites applications for a position as Postdoc in the field of spatial transcriptomics in cancer as per 1 April 2025 or as soon as possible thereafter. The start date is flexible, and the position is a fixed-term full-time position for two years with a possibility for extension.

We offer a vibrant international research environment where English is the preferred language in the laboratory, at meetings and at seminars. The Department employs approx. 500 people and covers a range of research areas within Biomedicine. We contribute to the Bachelor's degree programs in medicine, molecular medicine, odontology and the Master's degree programs in biomedical engineering and medical chemistry. Our infrastructure is well developed with modern laboratories, core and animal facilities. You will work in the brand new 'Skou Building' located at the Aarhus University Campus. You can read more about the department [here](#) and about the faculty [here](#).

About the research group

The Laboratory for Gene-Regulatory Mechanisms in Cancer was established at the Department of Biomedicine at Aarhus University, with the aim to explore the interplay between genetics, epigenetics and non-coding RNAs in the development and progression of cancer. We have a strong focus on spatial transcriptomics and explore the functional role- and clinical potential of both coding and non-coding RNAs, including lncRNAs and circular RNAs, in pediatric brain tumors, colon cancer and hematological malignancies. Circular RNAs are extremely stable within our cells and carry out completely different functions relative to their linear cognates. To study these molecules, we use a combination of traditional molecular biology approaches and high-throughput technologies such as RNA-sequencing and NanoString CosMx technology.

To ensure that the group is at the forefront of translational cancer research, we collaborate with leading pediatricians, pathologists, oncologists and hematologists as well as basic researchers in Denmark and abroad. In addition, for the projects related to this position, we collaborate directly with [MOMA](#) with whom you will also be affiliated.

About the research projects

Spatial transcriptomics is an advanced technique that enables researchers to analyze gene expression patterns within intact tissue architectures. By preserving the spatial information of RNA molecules in biological samples, this technology provides insights into gene activation or suppression in specific cells. It is invaluable for understanding complex biological processes and disease mechanisms, making it an essential tool for researchers in various fields. In addition to spatial transcriptomics, we utilize high-throughput RNA-sequencing for genome-wide profiling of all RNA species, including non-coding RNAs, along with a multitude of other standard laboratory techniques.

We are now initiating new projects centered around spatial transcriptomics (cosMx technology) and RNA-sequencing to address key questions about coding and non-coding RNAs in cancer pathobiology with the aim of translating this new knowledge into clinical practice. Many non-coding RNA molecules possess strong gene-regulatory potential, yet the roles of most non-coding RNAs in cancer and other multifactorial diseases remain unclear. These projects aim to unravel the pathobiology of non-coding RNAs in cancer and elucidate novel genetic and epigenetic mechanisms behind aberrant RNA expression in cancer. Moreover, we aim to characterize the molecular functions of selected non-coding RNAs that are pivotal drivers of cancer pathogenesis and potentially translate this knowledge into clinical use through large, well-annotated clinical cohorts.

Your job responsibilities

As Postdoc in Spatial Transcriptomics in Cancer 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.
- Collaborate within our group and with external collaborators.

Application Deadline:
26 February 2025

Faculty:
Faculty of Health

Institute/Faculty:
Department of
Biomedicine

Academic contact person:
Lasse Sommer
Kristensen
Lektor
lasse@biomed.au.dk

Vacant positions:
1

Hours per week:
37

Number of months:
24

Expected date of accession:
01/04/2025

You will report to the Head of Department. In your daily job, you will report to Associate Professor Lasse Sommer Kristensen.

Your competences

You have academic qualifications at PhD level, preferably within one or more of the following areas: Bioinformatics, Gene-expression analysis, Single-cell RNA-sequencing, and Spatial Transcriptomics. It is most important that you possess bioinformatics/computational skills.

As a person, you are purposeful, show initiative and possess good communication and interpersonal skills. 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 positions

If you have any questions about the position, please contact Dr. Lasse Sommer Kristensen tel.: (+45) 28880562.

Your place of work will be the Department of Biomedicine, the Skou Building, Høegh-Guldbergs Gade 10, 8000 Aarhus C, Denmark.

We expect to conduct interviews March 2025.

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/