Postdoc in Functional Precision Oncology

Application Deadline:
24 April 2025

Faculty:
Faculty of Heatlh

Institute/Faculty:
Department of Clinical Medicine

Academic contact person:
Maria Rusan
Lektor
maria.rusan@clin.au.dk

Vacant positions:
2

Hours per week:
37

Number of months:
24

Expected date of accession:
01/07/2025

The Department of Clinical Medicine at the Faculty of Health at Aarhus University invites applications for two positions as Postdoc in the field of Functional Precision Oncology as per 1 July 2025 or as soon as possible thereafter. The positions are fixed-term full-time positions for 1 and 2 years, respectively.

Department of Clinical Medicine

As a postdoctoral research fellow 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. You can read more about the department here and about the faculty here.

The project is based at the Department of Molecular Medicine (MOMA), Aarhus University/Aarhus University Hospital, working closely with Associate Prof. Maria Rusan. MOMA is at the forefront of cancer-omics research, as well as in the development of advanced bioinformatic tools. It furthermore serves as a diagnostic NGS core and houses the National Center for Whole Genome Sequencing West under the Danish National Genome Center. With numerous **active collaborations** with top-tier laboratories worldwide, MOMA provides a highly dynamic and interdisciplinary research environment at the forefront of molecular medicine.

About the research project

The positions will include involvement in multiple projects within functional precision oncology and translational cancer biology, with the overall aim of identifying novel therapeutic opportunities for patients with advanced cancers. In part, the positions will focus on understanding and overcoming resistance to targeted therapies by combining omics-based techniques with functional drug screening in 2D cell culture models, patient-derived tumor organoids (PDOs) and animal models. Additionally, the positions will involve establishing a high-throughput PDO-based drug screening platform to support precision oncology efforts across multiple cancer types, with the goal of guiding treatment and improving patient outcomes.

Your job responsibilities

The positions are 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 and presentation at conferences
- Establishment and validation of patient-derived cellular 2D and 3D models, and drug screening in these models
- Characterization of resistance to targeted therapies in cell culture models, and developing strategies to overcome these resistance mechanisms
- Analysis of sequencing data, including bulk whole-genome sequencing/RNAseq, as well as single cell sequencing data/spatial transcriptomics data
- Assisting with grant applications and protocol preparation, as well as ethical approvals
- Potentially co-supervision of master students/PhD students

You will report to Associate Professor Maria Rusan.

Your competences

You have academic qualifications at PhD level, for example within molecular medicine or molecular biology, or similar. Additionally, the following qualifications and skills will be advantageous:

- A track record of peer-reviewed publications in international journals
- Laboratory experience, with cell culture techniques, CRISPR-based techniques, drug screens, confocal microscopy
- Background in molecular and/or cell biology and/or cancer biology
- Prior experience with analysis of sequencing data
- Fluent in oral and written English

As a person, you are collaborative and contribute to a positive and fruitful work environment, are detail-oriented, self-motivated and capable of working independently, and are passionate about driving translational cancer research forward.

In order to be assessed as qualified for a Postdoc position, you must meet these academic criteria.

Questions about the position

If you have any questions about the position, please contact Maria Rusan tel.: (+45) 6079 4940.

Your place of work will be the Department of Molecular Medicine (MOMA), Science Center Skejby, 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 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/