



Postdoctoral Research Fellow on physics-based experimental studies of differentiation in stem cells

Job description

A three-year Postdoctoral Fellowship position is available in physics-based experimental studies of differentiation process for stem cells to pancreatic beta cells at the Center for Computing in Science Education and the Department of Physics. The position is part of the newly established Convergence environment “**Artificial Biomimetic systems- the Niche of Islet Organoids (ABINO)**” funded by UiO’s interdisciplinary strategic area UiO:Life Science.

The ABINO project unites three centers of excellence, [HTH](#) (Led by Prof. Stefan Krauss and Dr. Hanne Scholz), [RITMO](#) (led by Prof. Anne Danielsen and Ass. Prof. Alexander Jensenius) and [CCSE](#) (led by Prof. Anders Malthe-Sørenssen) and the [Department of Physics](#). The goal is to integrate our knowledge of islet biology and stem cell differentiation pathways, together with expertise in matrices and acoustic-mechanical stimuli to develop novel differentiation protocols to generate insulin producing cells. A team of two PhD-students and one Postdoctoral fellow will work together with a large collaborative interdisciplinary team of basic scientists, clinicians, bioinformatics, physicists, and musicologists to address these problems.

No one can be appointed for more than one Postdoctoral Research Fellowship at the University of Oslo.

More about the position

The main purpose of post-doctoral research fellowships is to qualify researchers for work in top academic positions within their disciplines.

The candidate will develop and apply experimental methods to generate, control and measure acoustic signals, measure how the signals affect cell differentiation in the specific system of interest, and develop methods for structuring and analysis of the resulting data.

The position will include 10% compulsory work for UiO:Life Science in agreement with the project leader.

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

We are looking for a candidate educated (PhD-degree) in experimental physics with experience in three or more of the following areas:

- Generation, control and measurement of acoustic signals on small scale (micrometer to millimeter) objects.
- Imaging and image analysis. Fluorescence imaging and high-speed imaging are of special interest.
- Image analysis and signal analysis using programming or scripting tools like Matlab and Python.
- Design of experimental devices and programming of control and measurement sequences.
- Interdisciplinary work.

The candidate must have:

- Excellent skills in written and oral English.
- Personal suitability and motivation for the position.

In assessing the applications, special emphasis will be placed on:

- The applicant’s scientific merit, as well as the quality of the research outline.
- The applicant’s estimated academic and personal ability to complete the project within the time frame.
- Very good collaboration skills.

We offer

- Salary NOK 523 200 - 583 900 per annum depending on qualifications in position as Postdoctoral Research Fellowship (position code 1352)
- Attractive [welfare benefits](#) and a generous pension agreement, in addition to Oslo’s family-friendly environment with its rich opportunities for culture and outdoor activities.

How to apply

The application must include:

- Cover letter (statement of motivation, summarizing scientific work and research interests)
- CV (summarizing education, positions, pedagogical experience, administrative experience and other qualifying activity)
- Copies of educational certificates, academic transcript of records and letters of recommendation
- A complete list of publications and up to 5 academic works that the applicant wishes to be considered by the evaluation committee
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

The application with attachments must be delivered in our electronic recruiting system, please follow the link "apply for this job". Foreign applicants are advised to attach an explanation of their University's grading system. Please note that all documents should be in English (or a Scandinavian language).

Interviews with the best qualified candidates will be arranged

Formal regulations

Please see the [guidelines and regulations](#) for appointments to Postdoctoral fellowships at the University of Oslo.

According to the Norwegian Freedom and Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

The University of Oslo has an [agreement](#) for all employees, aiming to secure rights to research results etc.

The University of Oslo aims to achieve a balanced gender composition in the workforce and to recruit people with ethnic minority backgrounds.

Contact information

Professor Dag Kristian Dysthe, e-mail: d.k.dysthe@fys.uio.no

Centre director, Professor Anders Malthe-Sørensen, e-mail: anders.malthe-sorensen@fys.uio.no

Centre director, Professor Stefan Krauss, e-mail: stefan.krauss@medisin.uio.no

For questions regarding the recruitment system, please contact HR Adviser Elin Thoresen, email: elin.thoresen@mn.uio.no, ph: +47 22 85 71 96

About the University of Oslo

The University of Oslo is Norway's oldest and highest rated institution of research and education with 28 000 students and 7000 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

The research at the Department covers a broad range of subfields within physics and technology: From space research to medical physics. A good proportion of the research is interdisciplinary, and conducted in close cooperation with collaborators in Norway and abroad. Education and teaching are other essential activities.

We offer a broad range of courses, and the Department is involved in several study programmes at bachelor's and master's level. Some of the best lecturers in Norway are amongst our employees, and we are proud of our prizewinning teaching and learning environment. The Department has 200 employees, of which 50 are permanent scientific positions. On a yearly basis 20 students complete their Ph.D. and 50 finish their M.Sc. degree.

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