



# A PhD Position in the Mechanics of Tissue Homeostasis at reNEW

The Novo Nordisk Foundation Center for Stem Cell Medicine (reNEW) at Faculty of Health & Medical Sciences at the University of Copenhagen is looking for a PhD candidate to join the Sedzinski group starting mid/late 2023 or upon agreement with the chosen candidate.

## The Center:

The Novo Nordisk Foundation Center for Stem Cell Medicine, reNEW has its Hub at the University of Copenhagen (UCPH) as well as nodes at UCPH, Murdoch Children's Research Institute and Leiden University Medical Center. Researchers within reNEW addresses fundamental questions in stem cell and developmental biology and will pivot research findings to clinical outcomes and products.

## Our research

A PhD position for 4 years (1 year as a Research Assistant and 3 years as PhD student) is available in the group of Jakub Sedzinski at reNEW. The team studies the general principles underlying epithelial homeostasis. Particularly, the team wants to determine both the mechanics and molecular regulation of the mucociliary epithelial cell development and renewal from stem cells hoping to provide new insights into treatment of epithelial pathologies associated with defective tissue homeostasis, such as asthma, colitis, and most common epithelial tumors, or carcinomas.

The team utilizes *Xenopus* (frog) embryos as a model system and the state-of-the-art quantitative image processing and multiomics techniques. This project will combine quantitative live-cell imaging of developing frog embryos, molecular and mechanical perturbations and computational analyses of time-series and sequencing data. Starting date for this position is the **1st of October 2023**, or upon agreement with the chosen candidate.

## Job description:

We are seeking an enthusiastic and outstanding candidate with a background in cell and tissue mechanics. The candidate will implement cutting-edge quantitative imaging methods, multiomics techniques and tissue engineering to unravel how cell and tissue mechanics regulates the mucociliary epithelial cell development and renewal.

Your key tasks as a PhD student at SUND are:

- Carrying through an independent research project under supervision.

- Completing PhD courses or other equivalent education corresponding to approximately 30 ECTS points.
- Participating in active research environments including a stay at another research team.
- Obtaining experience with teaching or other types of dissemination related to your PhD project
- Teaching and disseminating your knowledge.
- Writing a PhD thesis on the grounds of your project

**Qualifications:**

- A MSc degree in life sciences or equivalent
- Documented hands-on experience with *Xenopus* embryos, quantitative image processing and data analysis would be extremely valuable.
- Excellent English skills written and spoken.
- Highly motivated and ambitious candidates are encouraged to apply.
- A solution-oriented, organizational and positive mindset is required. The ability to work in a highly collaborative international environment both independently and as part of the team is essential.

**We offer:**

- A stimulating, challenging and multifaceted research environment
- A supportive team to work and collaborate with
- A combination of exciting projects and state-of-the-art technologies to expand your horizons.
- Possibilities for continued education and training.
- Attractive employment conditions for 4 years.
- Centrally located workplace.

**Terms of salary, work, and employment:**

The average weekly working hours are 37 hours per week.

The employment is conditioned upon the applicant's successful enrolment as a PhD student at the Graduate School at the Faculty of Health and Medical Sciences, University of Copenhagen. This requires submission and acceptance of an application for the specific project formulated by the applicant during the one-year employment as a research assistant.

The PhD study must be completed in accordance with The Ministerial Order on the PhD programme (2013) and the Faculty's rules on achieving the degree.

Salary, pension and terms of employment are in accordance with the agreement between the Ministry of Taxation and The Danish Confederation of Professional Associations on Academics in the State. Depending on seniority, the monthly salary starts at approximately 27,800 DKK/Roughly 3,700 EUR (October 2021 level) plus pension.

We encourage all - regardless of their personal background and status - to apply.

### **The application must include:**

1. Motivation letter
2. Curriculum vitae incl. education, experience, previous employments, language skills and other relevant skills
3. List of three references (full address, incl. email and phone number)
4. Certified copy of original Master of Science diploma and transcript of records in the original language, including an authorized English translation if issued in other language than English or Danish. If not completed, a certified/signed copy of a recent transcript of records or a written statement from the institution or supervisor is accepted. As a prerequisite for a PhD fellowship employment, your master's degree must be equivalent to a Danish master's degree. We encourage you to read more in the assessment database: <https://ufm.dk/en/education/recognition-and-transparency/find-assessments/assessment-database>. Please note that we might ask you to obtain an assessment of your education performed by the Ministry of Higher Education and Science

### **Questions:**

For further information contact Associate Professor Jakub Sedzinski, [jakub.sedzinski@sund.ku.dk](mailto:jakub.sedzinski@sund.ku.dk)

Foreign applicants may find the following links useful: [www.ism.ku.dk](http://www.ism.ku.dk) (International Staff Mobility) and [www.workingconditions.ku.dk](http://www.workingconditions.ku.dk).

### **How to apply**

Your online application must be submitted in English, by clicking on "Apply online" below. **The closing date for applications is 1st of August 2023.**

The University of Copenhagen wishes to reflect the diversity of society and welcomes applications from all qualified candidates regardless of personal background.

Only applications received in time and consisting of the above listed documents will be considered.

Applications and/or any material received after deadline will not be taken into consideration.

### **Assessment procedure**

After the expiry of the deadline for applications, the authorized recruitment manager selects applicants for assessment on the advice of the hiring committee. All applicants are then immediately notified whether their application has been passed for assessment by an unbiased assessor.

The assessor makes a non-prioritized assessment of the academic qualifications and experience with respect to the above-mentioned area of research, techniques, skills and other requirements listed in the advertisement.

Once the assessment work has been completed each applicant has the opportunity to comment on the part of the assessment that relates to the applicant him/herself.

The applicants will be assessed according to the Ministerial Order no. 242 of 13 March 2012 on the Appointment of Academic Staff at Universities.

You find information about the recruitment process at:

<https://employment.ku.dk/faculty/recruitment-process/>

### **Application deadline: 1st of August 2023**

*Founded in 1479, the University of Copenhagen is the oldest university in Denmark. It is among the largest universities in Scandinavia and is one of the highest ranking in Europe. The University's eight faculties include Health Sciences, Humanities, Law, Life Sciences, Pharmaceutical Sciences, Science, Social Sciences and Theology. [www.ku.dk](http://www.ku.dk)*

**APPLY NOW**

*Part of the International Alliance of Research Universities (IARU), and among Europe's top-ranking universities, the University of Copenhagen promotes research and teaching of the highest international standard. Rich in tradition and modern in outlook, the University gives students and staff the opportunity to cultivate their talent in an ambitious and informal environment. An effective organisation – with good working conditions and a collaborative work culture – creates the ideal framework for a successful academic career.*

## **Info**

**Application deadline:** 01-08-2023

**Employment start:** 01-10-2023

**Working hours:** Full time

**Department/Location:** reNEW NNF Center for Stem Cell Medicine

## **Search all vacancies**

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