

LINKÖPING UNIVERSITY

Hereby advertises a

Postdoctoral Scholarship in *In Situ* Evolvable Stretchable Neural Probes

Laboratory of Organic Electronics, Department of Science and Technology, Linköping University (Campus Norrköping)

Research environment

The Soft Electronics group is an international team led by [Assoc. Prof. Klas Tybrandt](#) and is part of the Laboratory of Organic Electronics (LOE). We develop composite materials, design concepts and devices for soft and deformable electronic systems. Areas of special interest are [bioelectronics and neural interfaces](#), [stretchable \(semi\)conductors](#), [energy harvesting/storage](#), and actuators. Many of our projects are based on national and international collaborations including a variety of competences. Read more at: www.liu.se/soft-electronics

At the Laboratory of Organic Electronics (LOE) we explore electronic and optical properties of organic semiconductors, biomaterials from the forest, and hybrid organic materials. We share a common interest in utilizing the combination of electronic and ionic charge for use in healthcare and biology applications, energy, and the internet-of-things. Our research topics include synthesis, material science, theory and modeling, device physics, nanotechnology, biotechnology, and system design. Our activities span the range from basic research to commercialization, the latter carried out in close collaboration with the institute RISE. LOE currently has ~130 researchers and research students divided into 12 units, each led by a principal investigator. Read more at www.liu.se/loe

Linköping University (LiU) conducts world-leading, cross-disciplinary research in fields that include materials science, IT and life science technology. LiU is one of the largest universities in Sweden and today has 27,000 students and 4,000 employees. The students are among the most desirable in the labour market and international rankings consistently place LiU as a leading global university. Read more at www.liu.se

Available postdoc research project

The aim of the project is to develop a novel neural interface technology based on soft and deformable conductors and functional materials. A new concept around *in situ* evolvable neural interfaces will be explored to find novel solutions for integrating soft electronics into tissue. The research will include materials and devices based on soft and elastic electronic composite materials to facilitate close integration with neural tissue and thereby enabling the translation between biological and electronic signals. Functional materials and probes for *in situ* actuation, e.g. magnetic, will be developed together with methods for controlled actuation. The devices will first be evaluated *in vitro* and finally *in vivo* with external collaborators.

As a postdoc you are expected to assist in the leadership of the scientific work within your area and to guide students. Responsibilities can increase in relation to demonstrated abilities.

Qualifications and requirements

Scholarship may be granted only to non-Swedish citizens with a PhD or equivalent acquired in another country than Sweden. The applicant must not have been employed by Linköping University previously.

The applicant must have or be about to receive a doctoral degree in a subject relevant to the research project (e.g. material science, applied physics, electrical engineering) and needs to be passionate about

research. Experience in stretchable electronics or neural interfaces will also be valued. Problem solving ability, creativity and relative fluency in English are essential.

Starting date

August 2022, or by agreement.

Appointment and Conditions

Appointment is initially for one year with a possibility of an extension for a second year depending on a mutual agreement. The total time for receiving a scholarship from Linköping University can never exceed two years.

- The scholarship amounts to SEK25000:-/month (tax-free) (~€2500/month). Travel costs to/from Sweden for a scholarship holder will be covered up to a maximum amount. Funding can be available to participate in conferences.
- Essential information about healthcare, insurances etc. can be found [here](#). Questions are welcome to HR@itn.liu.se

Application procedure

The following documents must be submitted as one combined pdf document:

1. Cover letter, max 2 pages, describing your background, research interests and what makes you interested in the position.
2. CV, max 4 pages, including contact details to three reference persons.
3. Full publication list.
4. Copy of passport, PhD diploma, and MSc transcripts with grades.

The application should be sent electronically to klas.tybrandt@liu.se and a copy to registrator@itn.liu.se. Mark your application with reference number **Dnr ITN-2021-00408** in the e-mail subject field.

Applications deadline: **8 May 2022**.

Contact

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Martina Klefbeck, HR partner, HR@itn.liu.se