Diarienr: GU 2025/1490

Institute of Biomedicine

Announcement of scholarship – postdoctoral fellow

Project Title: Experimental islet and pancreatic slice physiology using imaging and functional assays
Project duration and dates: 2 years, first day as agreed
Application deadline: 2025-05-23
Supervisor: Joan Camuñas-Soler
Contact: joan.camunas@gu.se

The Camunas-Soler lab is recruiting two Postdoctoral Research Fellows to join our interdisciplinary research team (www.camunaslab.org). These positions are part of a broader program to integrate functional measurements from live human pancreatic tissue with multiomic measurements to identify key factors driving diabetes. To achieve this, we are employing a broad array of experimental and computational tools.

The group is part of SciLifeLab and the Wallenberg Center of Molecular and Translational Medicine (WCMTM), and maintains an active network of international collaborators. As a member of the lab, you will join an international and dynamic team of experimental and computational biologists, and gain access to additional training and networking opportunities through the WCMTM and SciLifeLab.

The University of Gothenburg tackles society's challenges with diverse knowledge. 56,000 students and 6,600 employees make the university a large and inspiring place to work and study. The lab is located at the Institute of Biomedicine, providing close collaboration with clinical groups in Sahlgrenska University Hospital. This creates a unique environment to develop new quantitative tools to study human tissue in a clinically relevant context.

Gothenburg is quickly becoming a hub for life sciences in the Nordics, with a strong focus on research and innovation. The region is home to Scandinavia's largest university hospital and one of AstraZeneca's three globally strategic R&D centres. New initiatives such as the GoCo Health Innovation City and BioVentureHub are creating a world-class innovation cluster for the life sciences.

For more information about the lab and team, visit www.camunaslab.org and our research profile.

Project summary:

This position centers on the development and application of machine learning, image analysis, and integrative omics approaches to spatial transcriptomics and genomics datasets. The goal is to identify molecular and spatial signatures of disease progression both in human samples and in experimental models of diabetes.

Qualifications:

- PhD in bioinformatics, physics, statistics, computer science, computational biology, or related fields.

- Experience programming in Python (or R) as well as bash/shell scripting.

- Experience with machine-learning and deep learning packages (e.g. PyTorch, Keras)

- Experience with HPC and scientific workflow management tools (e.g. Nextflow, Snakemake)

- Experience with single-cell data analysis (e.g scanpy, scvi), and/or spatial omics is an advantage

- Motivation, creativity and interest in working with a highly interdisciplinary team using state-of-the-art technologies.

- Fluency in English, and ability to work independently and in a team

🤝 **We Offer:**

- An interdisciplinary and international research environment

- Access to state-of-the-art equipment for genomics and advanced microscopy

- Access to training and networking activities through SciLifeLab and WCMTM

- An active local environment in metabolism and diabetes, including collaborations with the Rorsman and Rosengren labs

- Access to unique human tissue samples from multiple sites across Europe and Canada

- Opportunities for collaboration with Sahlgrenska University Hospital and AstraZeneca

📅 **Application Details:**

Send your application to **joan.camunas@gu.se**

The application should include:

- CV

- Cover letter

- PhD Certificate

- Contact details of 2–3 referees