



THE SAHLGRENKA ACADEMY
INSTITUTE OF NEUROSCIENCE AND PHYSIOLOGY

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Announcement - scholarship at undergraduate/advanced level

The Department of Physiology, Institute of Neuroscience and Physiology, hereby announces a vacant scholarship at undergraduate/advanced level in “Analysis of single-cell data from adipose tissue in a PCOS-like mouse model”.

Training plan

Background: Clinical and pre-clinical evidence pinpoint excessive secretion of androgens as the underlying cause of polycystic ovary syndrome (PCOS), the most common endocrine disorder in women. Women with PCOS display high circulating androgens associated with adipose tissue dysfunction, excessive visceral adiposity, insulin resistance, and thereby increased risk for metabolic disturbances. Here, we aim to determine mechanisms for PCOS-related adipose tissue dysfunction and altered fat distribution using a PCOS-like mouse model. This model is induced by exposing female mice to dihydrotestosterone (DHT) prenatally.

This imprinting model mimics the intrauterine exposure of daughters born to mothers with PCOS and can provide important information about the mechanism that drive adipose tissue dysfunction and thereby increase the risk of metabolic syndrome at adulthood. We have used Parse Bioscience Technology to get adipose tissue gene expression at a single cell level.

Method: Bioinformatic tools e.g. R and Seurat will be used to analyze single-cell data.

Time plan: 4 weeks starting in July 2025

Learning outcome: To independently be able to perform quality control, sorting and analysis of single cell data. The training involves the use of several bioinformatic tools to visualize differences in gene expression between the PCOS-like mice and controls. The student will receive hands-on training. This training position comes with a stipend, that does not represent a salary, and the activities performed are not regarded as work.

Period

4 weeks, starting date in July 2025.

Financing

1 payment of 13 000 SEK. A total of 13 000 SEK for the whole period

If you require any further information, please contact Ingrid Wernstedt Asterholm, IWA@neuro.gu.se, supervisor.

Application

To apply please fill out the form “Scholarship application” and send it to Ingrid Wernstedt Asterholm, IWA@neuro.gu.se, supervisor.

Please attach a copy of:

CV

Letter of motivation

Closing date is 2025-07-02.