



**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 Neurophysiology.

### **Training plan**

**Subject:** Neural mechanisms involved in processing painful and pleasant touch stimuli.

**Background.** This project is focused on learning about a brain regions implicated in the process of turning touch to pain in allodynia with particular emphasis on the amygdala. Amygdala is known to be crucial for processing the emotional-affective dimension of pain.

**Method.** In this project the student will investigate the role of the amygdala in processing both aversive and positive touch sensations in mice. Wild-type and transgenic mice will be trained to use a facial operant testing apparatus that delivers either pleasant or mildly aversive touch stimuli. Additionally, immunohistochemistry will be used to identify the expression of c-Fos protein in the amygdala in response to both types of touch stimuli.

**Purpose.** The purpose of the study is for the student to gain a thorough understanding of the neuroanatomy and physiology of affective touch processing. The student will train on using neuroscientific methods and how to conduct research to investigate the neural mechanisms involved in turning touch to pain.

**Learning outcomes.** The knowledge and skills that are acquired during this training includes gaining an understanding of the neural events involved in processing affective touch stimuli. Experimental design and execution involving training mice in operant testing apparatuses and conducting immunohistochemistry experiments. Certification on laboratory animal science is therefore expected at the start of the training period.

The stipend is not equivalent to any work at the University of Gothenburg.

### **Period**

20240812 to 20240910

### **Financing**

1 payments of 18000 SEK. A total of 18000 SEK for the whole period

If you require any further information, please contact line Löken, [line.loken@gu.se](mailto:line.loken@gu.se), supervisor.

**Application**

To apply please fill out the form “Scholarship application” and send it to Line Löken, [line.loken@gu.se](mailto:line.loken@gu.se), supervisor.

Please attach a copy of:

CV

Letter of motivation

Registration certificate

Closing date is 2024-07-29