



**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 Gastroenterology II.

### **Training Plan**

Subject: Gastroenterology II

Background: During recent years the role of goblet cells (GC) in regulation of intestinal immunity has obtained increased attention via the discovery that GCs sample luminal antigens and deliver them to the immune system. We have shown that in mice, intestinal GCs sample antigens in response to the cholinergic agonist acetyl choline a process that also induces mucus secretion. Whether human GCs sample antigens via similar processes is not known.

Purpose: In this project we will evaluate antigen sampling by human colonic GCs.

Method: We will explore the mechanisms regulating antigen uptake by GCs using live colonic biopsies mounted in Ussing chambers and evaluate antigen uptake by immunohistochemistry.

Time plan: The first month will be dedicated to training the student in the respective methods and data analysis. During the remaining time the student is expected to work independently.

Learning outcome: Following completion of the project the student will have obtained practical and theoretical training in gastroenterology with a focus on goblet cell biology. The practical experience includes Ussing chambers, immunohistochemistry and fluorescence microscopy. The theoretical aspects focus on goblet cell biology and goblet cell immune cell interactions. This training position comes with a stipend, that does not represent a salary and the activities performed are not regarded as work.

### **Period**

2025-11-24 to 2025-02-24

### **Financing**

1 payment of 39.000 SEK. A total of 39.000 SEK for the whole period

If you require any further information, please contact Jenny Gustafsson, [jenny.gustafsson@gu.se](mailto:jenny.gustafsson@gu.se), supervisor.

**Application**

To apply please fill out the form “Scholarship application” and send it to Jenny Gustafsson, [jenny.gustafsson@gu.se](mailto:jenny.gustafsson@gu.se), supervisor.

Please attach a copy of:

CV

Letter of motivation

Closing date is 2025-11-07.