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**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/mucosal immunology.

### **Training plan**

**Background:** Ulcerative colitis (UC) is a chronic inflammatory disease that affects the colon. The pathogenesis of UC is still unknown, however the inflammatory response is thought to be directed towards the intestinal microbiota. We have previously shown that colonic goblet cells (GCs) play an essential role in regulation of colonic health by sampling and delivering luminal antigens to the immune system. At this point the majority of knowledge in this area comes from animal studies and less is known about this process in the human colon.

**Purpose:** In this project we will explore the role of goblet cells in regulation of gut immunity in the human colon.

**Method:** We will explore antigen uptake by colonic GC, and GC – immune cell interactions in colonic biopsies from healthy controls and UC patients. Antigen uptake and GC – immune cell interactions will be analyzed by immunohistochemistry. The project also involves collection and preparation of tissue samples for immunohistochemistry.

**Time plan:** The first weeks 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 and mucosal immunology. The practical experience includes immunohistochemistry and fluorescence microscopy. The theoretical aspects focus on GC biology and epithelial – 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**

2023-02-13 to 2023-04-13

### **Financing**

1 payments of 24000 SEK. A total of 24000 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

Registration certificate

Closing date is 20xx-xx-xx (låt stå tills prefekt signerat inrättande).

