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# THE SAHLGRENSKA 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

<u>Background</u>: 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.

<u>Purpose</u>: In this project we will explore the role of loss of mucus barrier function in regulation of the colonic epithelium during early life.

<u>Method:</u> We will explore the role of the mucus barrier in regulating epithelial protein expression using the C1galt1 model of colitis where loss a dysfunctional mucus barrier is the primary cause of disease. Epithelial protein expression will be analyzed by qPCR and RNAscope. The project involves handling of live mice.

<u>Time plan:</u> 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.

<u>Learning outcome</u>: Following completion of the project the student will have obtained practical and theoretical training in gastroenterology. The practical experience includes epithelial cells isolation, qPCR, RNAscope. The theoretical aspects focus on microbial regulation of epithelial function. This training position comes with a stipend, that does not represent a salary and the activities performed are not regarded as work.

#### Period

2024-06-17 to 2024-08-17

### **Financing**

1 payments of 24.000 SEK. A total of 24.000 SEK for the whole period

If you require any further information, please contact Jenny Gustafsson, 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, supervisor.

Please attach a copy of:

CV Letter of motivation Registration certificate

Closing date is 2024-06-12.