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# THE SAHLGRENSKA ACADEMY INSTITUTE OF NEUROSCIENCE AND PHYSIOLOGY

Department of physiology Administrator: Amilia Bliding Telephone No: 031-7863878

E-mail address: amilia.bliding@gu.se

# 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 I.

## **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 developing immune system.

Method: We will explore the role of the mucus barrier in regulating neutrophil infiltration using the C1galt1 model of colitis where loss a dysfunctional mucus barrier is the primary cause of disease. Immune cell infiltration will be assessed by immunohistochemistry on colonic sections. The project also involves genotyping of the C1galt1 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 training in imaging techniques and theoretical training in mucosal immunology. The practical experience includes immunohistochemistry, PCR, and gel electrophoresis. The theoretical aspects focus on mucosal barrier function and intestinal immunity. This training position comes with a stipend, that does not represent a salary and the activities performed are not regarded as work.

#### Period

2023-06-17 to 2024-07-28

### **Financing**

1 payment of 18.000 SEK. A total of 18.000 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.