



THE SAHLGRENKA ACADEMY
INSTITUTE OF NEUROSCIENCE AND PHYSIOLOGY

Department of 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 III.

Training Plan

Subject: Gastroenterology

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.

Purpose: In this project we will explore the role of loss of mucus barrier function in regulation of bacterial composition and epithelial gene expression.

Method: We will explore the role of the mucus barrier in regulating the bacterial composition by 16S sequencing and epithelial expression by RNA sequencing using C1galt1 model of colitis where loss a dysfunctional mucus barrier is the primary cause of disease. Fecal samples will be collected followed by DNA isolation. Epithelial cells will be isolated followed by RNA isolation. The project involves handling of live mice.

Time plan: The first month will be dedicated to training the student in the respective methods. 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 intestinal biology and microbiology. The practical experience includes isolation of epithelial cells, DNA extraction and RNA extraction. This training position comes with a stipend, that does not represent a salary and the activities performed are not regarded as work.

Period

2024-12-20 to 2025-04-07

Financing

1 payments of 48.000 SEK. A total of 48.000 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 2024-12-17