



THE SAHLGRENKA ACADEMY
INSTITUTE OF NEUROSCIENCE AND PHYSIOLOGY

Department of
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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

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 how loss of mucus barrier integrity affects the ability of GCs to deliver antigens to the immune system.

Method: We will explore antigen sampling by GCS in a mouse models of colitis, the C1galt1 model of colitis, where a dysfunctional mucus barrier is the primary cause of disease. Antigen uptake will be assessed by intraluminal injections of fluorescently labeled model antigens. Antigen uptake will be analyzed on colonic tissue section using fluorescent microscopy. The project involves handling of live mice and 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. The practical experience includes intraluminal injections of model antigens, immunohistochemistry and fluorescence microscopy. The theoretical aspects focus on 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

2024-04-11 to 2024-07-10

Financing

1 payments of 36.000 SEK. A total of 36.000 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