



**SAHLGRENKA AKADEMIN
INSTITUTIONEN FÖR BIOMEDICIN**

Diariennr: GU 2024/3520

Institute of biomedicine

2024-12-12

Announcement of scholarship – postdoctoral fellow

Project Title: Medicinsk cellbiologi

Project duration and dates: 2025-02-01 – 2027-01-31

Application deadline: 2025-01-02

Supervisor: Professor Malin Johansson

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Project summary:

Background and aim

Colorectal cancer is one of the most common forms of cancer and for a number of patients, its development is mediated by inflammation. Problems with the barrier function of the intestine, especially the protective mucus layer, can be linked to inflammation. Therefore, it is important to study the link between the malfunctioning barrier protection and cancer development. The aim is to understand the role of the mucus protein FCGBP, which is dysregulated in several cancers, in the development of intestinal tumours.

Methods

Analyses of tumour development in inflammatory induced mouse models with a genetically modified protective mucus layer. Analyses of mucus properties, epithelial cell changes as well as gene and protein expression in relation to the mucus protein FCGBP will be performed. The study involves animal handling with an inflammation-induced cancer model, tumour monitoring, mucus analyses, high-resolution microscopy, molecular biology and biochemistry methods.

Previous knowledge in the research area and experience of requested methods is desirable.

Applications should be emailed to: malin.johansson@medkem.gu.se

The application should include:

- motivation letter
- CV including contact info.
- PhD certificate

