



**SAHLGRENKA ACADEMY  
INSTITUTE OF BIOMEDICINE**

Diariennr: GU 2024/3864

**Institute of biomedicine**

2025-01-06

## **Announcement of scholarship – postdoctoral fellow**

**Project Title:** The role and mechanisms of the ubiquitin ligase HUWE1 in immunity

**Project duration and dates:** 6 months, 01.03.2025-31.08.2025

**Application deadline:** 25-01-29

**Supervisor:** Anetta Härtlova

**Contact:** anetta.hartlova@gu.se

### **Project summary:**

#### **Background**

The innate immune system requires stringent regulation to ensure effective defense against pathogens without causing self-harm. Ubiquitination is a key post-translation modification that controls different cellular processes including innate immune signaling pathways. Ubiquitination involves the conjugation of ubiquitin peptides onto target proteins by E3 Ubiquitin ligases. The E3 ubiquitin ligases involved in innate immune regulation are not fully understood. Recently we have identified the E3 ligase HUWE1 as an essential regulator of innate immunity and that ablation of this enzyme in mice results in protecting age-related inflammation.

#### **Purpose**

The goal of this project is to investigate the role and mechanisms of the E3 ligase in the regulation of different innate immune pathways and its impact on age-related inflammation and decline of physiological functions.

#### **Method**

We will differentiate bone marrow macrophages and mouse embryonic fibroblasts from wildtype and HUWE1 knockout mice and will be compared their cytokine response upon stress challenge including defined ligands for specific innate immune pathways.

**Applications should be emailed to:** anetta.hartlova@gu.se

#### **The application should include:**

- motivation letter
- CV including contact info.
- examensbevis