

Utläsnings

Project title

The role of WNT signaling in the mesoderm induction of human pluripotent stem cells

Project duration and dates

6-months project, to be carried out from February 4th to August 3rd 2026.

Application deadline: January 27th 2026.

Amount: Stipend of 16 000 SEK/month

Project Summary

Background and Aims: WNT signaling pathway plays a pivotal role in inducing mesoderm, and subsequent differentiation towards the hematopoietic (blood) lineage during embryonic development. By using human pluripotent stem cells (hPSCs) differentiation as a model, this project aims to study how WNT signaling reprograms the protein synthesis machinery to influence mesoderm specification.

Methods: The successful candidate will culture hPSCs with different concentration of the WNT agonist CHIR99021 and assess changes in ribosome biogenesis, protein synthesis and associated stress pathways using immunoblotting. Additionally, flow cytometry will be applied to assess the impact of WNT signaling on protein folding and endoplasmic reticulum homeostasis. Finally, the candidate will test how pharmacological modulation of protein folding impacts differentiation toward hematopoietic lineages.

Applicant

We are looking for a highly motivated and dedicated candidate, who wishes to gain in-depth expertise in human pluripotent stem cell culture, protein synthesis control, developmental biology, embryonic hematopoiesis, hematology and molecular mechanisms of differentiation. This project is intended for a candidate who has completed their Masters degree, and who is interested in pursuing an academic career by eventually enrolling in a PhD.

Preference will be given to candidates who already have prior work experience in the fields of hematopoiesis, aseptic cell culture and Western Blot. Well-ranked candidates showing high interest in acquiring this training will also be considered.

Application

Send by e-mail to carolina.guibentif@gu.se the following documentation, as attached pdf files: *Curriculum Vitae*, motivation letter, contact details for at least two references (phone number and e-mail address). Deadline: 2026-01-27.