Master's thesis project

at Stem Cell Center in Lund University, Sweden

Lund Stem Cell Center at Lund University is a world-leading center for stem cell research with the mission of transferring basic science findings to the clinic in order to improve human health. Working at the Stem Cell Center also gives you the opportunity to interact with excellent scientists working in diverse stem cell fields.

We are looking for a master's student interested to do their thesis project on ubiquitin-proteasomal pathways in stem cells and leukemia.

Project duration

From 6 to 12 months (1 or 2 semesters), Starting time: Fall of 2025 or Spring of 2026.

Topic

Uncovering the critical regulators of ubiquitin-proteasomal system in stem cells and leukemia.

Project description

The aim of this project is to identify novel regulators of the ubiquitin-proteasomal pathway in hematopoietic stem cells and leukemia. The thesis work would focus on identification of genes that are essential for optimal functioning of the ubiquitin-proteasomal system. Identified gene candidates will be studied further in the context of determining sensitivity of protein degrader drugs which are currently emerging as attractive therapies for leukemia.

Requirements for candidate

- Experience in vector cloning or cell culture
- Experience in standard molecular assays (western blot, RT-qPCR and others)

The project includes,

- Gene knockout using CRISPR and lentiviral vectors
- FACS assays
- Assays related to protein stability and abundance
- Possibility to work with primary human hematopoietic stem cells.

Supervisor: Agatheeswaran Subramaniam, PhD

More information about the PI and our work:

- https://portal.research.lu.se/en/persons/agatheeswaran-subramaniam
- https://www.stemcellcenter.lu.se/article/decoding-inner-workings-blood-stem-cell-boosting-molecule
- Lab's website:

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Please send your CV and a short motivational letter before **September 30, 2025.** to <u>agatheeswaran.subramaniam@med.lu.se</u>, with topic "Master thesis project". You can also contact Agathees for any questions or more information on the position.