

HALRIC Research Internship Programme

Internship Proposal

Project Title: Exploring neutralisation capacity of bispecific antibodies towards coronaviruses

Name of Institution/Country: Lund University, Sweden

Name of internship provider: Milena Samojlovic

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Proposed timeframe:

2 months from 1st April to 31st May 2025

Application deadline:

21st March 2025

Administrative contact person at the organisation:

Mersiha Karat, mersiha.karat@med.lu.se

Scientific research questions

The main aim of this project is to determine the neutralising potential of a panel of bispecific antibodies towards human coronaviruses and compare their efficacy with monoclonal antibodies.

Tasks of the intern

The intern will be engaged in analysing the pseudovirus neutralisation assay data using different statistical methods in GraphPad Prism software. Besides data analysis, the intern will be introduced to pseudovirus systems, including pseudovirus production and their implementation for antibody neutralisation assessment.

General information about the work group, the university and the region.

The Systems Virology group led by PI Joakim Esbjörnsson has well established results in the field of HIV research with special focus on virus-host mechanisms that can be targeted for functional cures or vaccines. Systems Virology group is part of the new Lund University Virus Centre, a modern and cutting-edge facility for the virus research. Lund University is one of the top universities in Sweden and in the world. Lund University encourages cross-boundary collaborations both within academia, industry and society, creating excellent conditions for scientific breakthroughs and innovations.

Eligibility and qualification of the applicant.

Biomedicine/medicine/biology field of study, basic knowledge in viruses and immunological response, basic statistical knowledge (previous experience with GraphPad Prism is an advantage).