

MASTER PROJECT 2015/2016

Membrane proteins are critical to human physiology and are therefore attractive drug targets. In this project, the student will focus on a chloride-conducting channel (GLIC) to study effect from cholesterol.

The student will perform and gain expertise in all steps in the membrane protein production process, such as membrane isolation, solubilisation, and HPLC-based affinity and size-exclusion purification steps.

Once the pure protein is obtained, the student will characterize protein function using the port-a-patch electrophysiology method, which is frequently used in the pharmaceutical industry. In short, the protein will be inserted into an artificial lipid bilayer. Here, the effects from different concentrations of cholesterol can be assessed.

The student will participate in a collaborative effort to start a new branch of protein characterization at Science for Life Laboratory. The project was designed to enable a publication (given success) within the timeframe of a Master project. The project will be taking place at Science for Life Laboratory at Karolinska Institute Science Park. Dr. Magnus Andersson will supervise the protein production part and Dr. Göran Klement will supervise the electrophysiology part. Please, observe that this is a Master thesis project and that no salary can be offered.

Candidates interested in this opportunity, please send in your CV and a personal letter **before October 31** to:

Goran.klement@scilifelab.se

Magnus.andersson@scilifelab.se

