

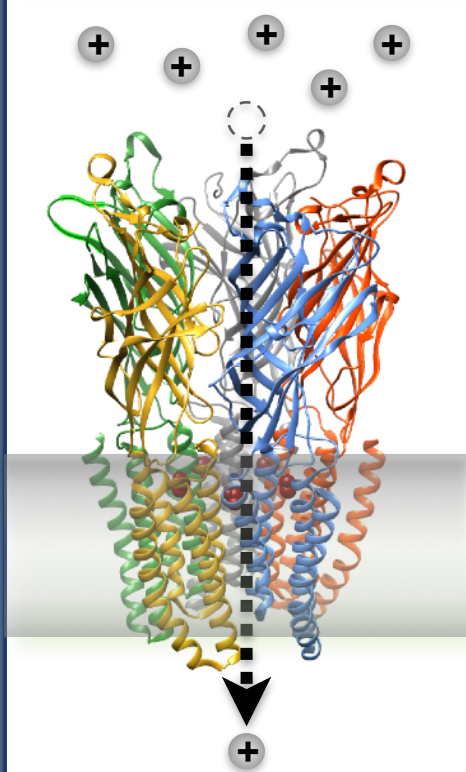
# Student Research Positions

## Laboratory & Computational Biophysics of Ion Channels



Two types of **Research/Degree Projects** are currently available in the Science for Life Laboratory group headed by Professor Erik Lindahl.

Under the supervision of Dr Reba Howard, students in this interdisciplinary group will focus on **laboratory or computational** biophysics approaches to investigate the **structure and function** of proteins involved in neurological signaling, particularly the activation and modulation of **ion channels**.



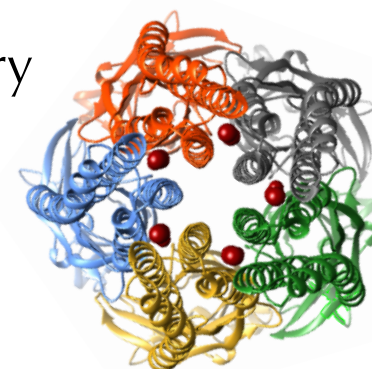
### Project 1—Electrophysiology of Novel Receptor Variants

Express and characterize ion channel proteins in a model cell system, using molecular biology and voltage-clamp recordings to quantify expression, gating, and modulation towards structure determination and/or drug development.

### Project 2—Simulating Receptor Gating and Modulation

Harness recent high-resolution structure-function data to build, simulate, and analyze model ion channel models, using molecular dynamics to probe and engineer structural changes, drug binding pockets, and/or novel mutations.

Applicants should have some theoretical and/or laboratory preparation in biophysics, biochemistry, or related fields at the Bachelor's or Master's levels, and an enthusiasm for interdisciplinary research and communication. For inquiries or further details, contact [rebecca.howard@scilifelab.se](mailto:rebecca.howard@scilifelab.se).



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