

Structure-function relationships in protein-ligand interactions and protein folding

If you like maths and physics and want to cross over into biochemistry, or if you're a molecular biologist who feel keen to expand your horizon into more biophysical areas, this position is ideal for you!

Why? To get a better understanding of fundamental principles in the protein world.

How? Protein engineering in combination with biophysics.

What will you learn? Protein engineering involves many basic techniques important for the biochemist to master: cloning of cDNAs and propagation of plasmids in bacteria, site-directed mutagenesis by PCR, protein expression and purification. The aim here is to obtain pure proteins for biophysical studies.

The main techniques for the biophysical studies are spectrophotometry and fluorimetry. Measurements are done both at equilibrium using spectrophotometers/fluorimeters and under pre-equilibrium conditions using stopped-flow spectrometry. We are also collaborating with crystallographers to solve structures of protein-ligand complexes.

Whether you choose to do binding or folding, you will learn how to collect, analyse, and most importantly, interpret data in a sensible and sound way. And that is what science is all about!

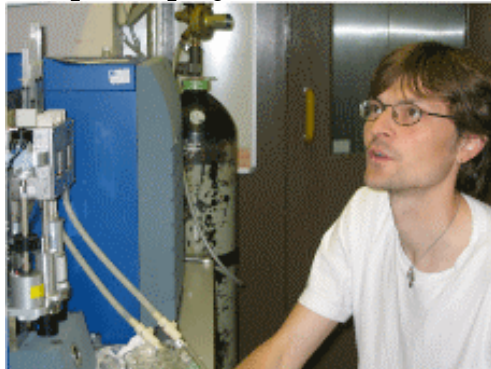
When? When it suits you

Where? Per Jemth

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For **specific projects**, mail or call me: Per.Jemth@imbim.uu.se, 018-471 4557



Me by the stopped-flow...



...trying to figure out the structure of a folding transition state.