Our group focuses on peptide-based drug design and biomembrane nanotechnology. We are developing novel compounds that allow us to exploit the potential of peptides as drugs. We are currently applying our technology to the development of new compounds for treatments of cardiovascular disease and new bio- and nano-materials. Our membrane nanotechnology projects involve the development of new methods for membrane protein purification and analysis with application to Alzheimer’s, G protein-coupled receptor function, apoptosis, antimicrobial peptide function and new biosensor devices. The long-term aim of these studies is to increase our understanding of the molecular basis of peptide and protein function and allow the rational design of peptide and protein based therapeutics.

Research Projects

1. **Peptide-Based Nanomaterials**
2. **Role of the Mitochondrial Membrane in Apoptosis**
3. **New Ligands for Cardiovascular Disease**

Selected significant publications:


