Sam Mostafa *(Centre for Medicine Use and Safety)*

Pharmacogenomics – Exploring the impact and challenges for medication optimisation in mental health

Sam Mostafa [BPharm, AACPA, PhD candidate (pharmacogenomics) Monash University] is the Associate Clinical Director at myDNA Life Australia. Sam leads the clinical team responsible for managing the clinical pharmacogenomic (PGx) service provided by myDNA. He is a regular guest lecturer at Monash University (Department of pharmacology) and a leading speaker and educator on the clinical application of PGx testing. His PhD research aims to explore the impact and challenges of utilising PGx testing for medication optimisation in mental health.

Dr Dorothy Wai *(Drug Delivery Disposition & Dynamics)*

Developing Kv1.3-targeting peptides as therapeutics for neuroinflammatory diseases

Dr Dorothy Wai is a research fellow in the Medicinal Chemistry theme. She completed her PhD at the University of Sydney using NMR and other biophysical techniques to characterise the interactions of zinc-finger transcription factors with RNA, and interactions between epigenetic reader proteins. Since moving to MIPS and joining Prof. Ray Norton's group, she has worked on highly collaborative fragment-based drug discovery projects against protein targets in type 2 diabetes and graft-versus-host disease, utilising her experience in molecular biology, protein biochemistry and structural biology. Her current research focuses on developing peptides that inhibit the potassium channel KV1.3, a novel molecular target in neuroinflammatory conditions such as Alzheimer's disease and multiple sclerosis, with the aim of generating therapeutic leads that have improved brain permeability and pharmacokinetic properties. Her work has attracted philanthropic funding and has the potential to expand the currently limited therapeutic options available to people with Alzheimer's disease.

Dr John Scott *(Drug Discovery Biology)*

Beyond calcium signalling: The emerging role for CaMKK2 as a metabolic sensor

Dr John Scott graduated with a Bachelor of Science (Hons) from the University of Glasgow and a PhD in Biochemistry from the University of Dundee, after which he moved to Melbourne to undertake postdoctoral studies with Prof Bruce Kemp at St Vincent's Institute of Medical Research (SVIMR). Dr Scott is currently Head of the Neurometabolism Lab at Monash Institute of Pharmaceutical Sciences (MIPS) and an Honorary Senior Research Fellow at the Florey Institute of Neuroscience and Mental Health. The primary research interest of his team is understanding the signaling pathways in brain that regulate mood and behaviour in response to hormones and metabolites that signal changes in energy availability. His research is specifically focused on the control of the CaMKK2 signaling pathway, which is a regulator of brain function and whole-body energy metabolism. Loss-of-function mutations in human CaMKK2 are associated with bipolar disorder, and a major goal is to validate CaMKK2 as a rational treatment target for mood disorders.