

## Our Team

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### **Facility Director – Dr Anna-Marie Fairhurst**

Anna-Marie Fairhurst received her PhD in Immunology/Pharmacology at the William Harvey Research Institute at St Bartholomew's Hospital, University of London in 2002. During her PhD she examined the roles of neutrophil-FcγRIIIb and tristetraprolin (TTP) expression in rheumatoid arthritis under the direction of Nicolas Goulding and Paul Wallace (Dartmouth, NH). From London she moved to the NIH, in Bethesda, Maryland, USA to undertake a postdoc with Peter Lipsky. Projects were focused on the mechanisms of the initiation and progression of autoimmunity. Her main directions were to examine innate regulation of systemic lupus erythematosus (SLE) and the effects of IL-21 on B cell transcription factors.

In 2004, she moved to Dallas, TX, to continue studying SLE with Ward Wakeland. Her research focused on the genetic and immunological mechanisms which drive SLE pathogenesis using multiple murine models, specifically examining the role of IFN $\alpha$  and the TLRs.

Anna-Marie joined A\*STAR in March 2010 at the Singapore Immunology Network and transferred to IMCB in 2019. The overall goal of her lab is to understand the mechanisms that maintain an effective balance in the immune system for efficient protection from infections, cancer and autoimmunity. Systemic lupus erythematosus (SLE) is the archetypal autoimmune disease, whereby the host's immune system develops reactivity to self, resulting in systemic inflammation and often, kidney pathology. By studying the immunological mechanisms driving this disease, the crucial mechanisms of immune tolerance and inflammation that are targets for therapy across multiple diseases can be understood. Her lab is translational, working with multiple animal models and clinical human samples.

She has also retained a passion for advanced flow cytometry techniques and advancing women in STEM. In her spare time she enjoys running, swimming and chasing after her 3 young children.



### **Facility Manager – Daniel Anand Silva**

Daniel has extensive flow cytometry experience, having worked in the field for over 6 years to date. He started in the BSF Scientific Services shared facility in Jan 2014, working a application specialist till Oct 2015. He then moved over to SigN in October 2015 to run the BMSI FACS services for them till Jan 2018. Daniel led a team of 2-3 pax in running sorting and analysis services for a wide range of applications for the wider A-STAR scientific community and external clients.

He then moved to Covance as a medical technologist in February 2018. Worked in the hematology department for 2 months, doing workflow optimization for clinical sample processing. He then moved to Duke-NUS Graduate Medical School in May 2018 as the Flow Facility manager and worked there till September 2019, before starting at IMCB.

Daniel is passionate about the technology and the endless possibilities that it provides the research community. He enjoys educating users and researchers about flow cytometry and consulting on experiment planning and optimization. In his spare time, Daniel enjoys sports and reading. He is constantly looking to improve himself and would be glad to assist you on your flow projects.