



## **ILC regulatory networks in mucosal barrier tissue microenvironment**

### **Dr Matt Hepworth**

Sir Henry Dale Fellow,  
Division of Immunology,  
Immunity to Infection and  
Respiratory Medicine,  
University of Manchester

Matt Hepworth undertook a PhD in Manchester and postdoc at the Humboldt University in Berlin, Germany. In 2012 he moved to UPenn, (and later Weill Cornell Medicine, New York City) to join the lab of Greg Sonnenberg. Here, he worked in the rapidly developing field of Innate Lymphoid Cell (ILC) biology and identified a novel role for ILCs in intestinal inflammation and Inflammatory Bowel Disease. In 2016 he returned to the University of Manchester as a Wellcome Trust fellow to establish an independent lab. His group aims to understand the complex crosstalk between the tissue-resident immune system, diet and microbiota and the ILC mechanisms for maintaining tissue homeostasis.

ILCs are tissue-resident effector lymphocytes with broad and complex roles in maintaining tissue homeostasis, mediating immunity and driving inflammatory pathology. Contextual cues present within the local tissue microenvironment act to modulate ILC function and facilitate cellular crosstalk, with disruption of these homeostatic circuits leading to disease. This talk will explore emerging mechanisms of ILC regulation within barrier tissues across a range of biological systems.

**1pm-2pm Wednesday, 14<sup>th</sup> May 2025**  
**John Shine Room TKCC, Garvan Institute**



**Garvan Institute**  
of Medical Research

Hosted by Dr Kylie James  
[k.james@garvan.org.au](mailto:k.james@garvan.org.au)

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