

SIgN SEMINAR

Hosted by Dr Melissa NG

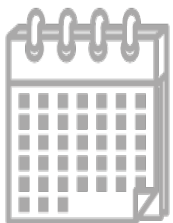


Associate Prof Joshua OOI

NHMRC Leadership Fellow
Head, Regulatory T Cell Therapies Group,
School of Clinical Sciences,
Monash University

Engineering Antigen-Specific TCR-Tregs To Treat Autoimmune Disease

A/Prof. Ooi has demonstrated how antigen-specific T cells are the key drivers of driving autoimmune disease (e.g. PNAS 2012, JCI 2013 and Nat Commun 2019; as well as >20 times in the top two nephrology journals JASN and Kidney Int). Importantly, he published a 1st author landmark paper in Nature, 2017, showing that antigen-specific Tregs are the key protectors of autoimmune disease. Based on this discovery, A/Prof. Ooi's lab developed a platform for genetically engineering antigen-specific Tregs. They have successfully engineered Tregs specific for a key autoantigens in various autoimmune diseases and showed that these specific Tregs could effectively suppress pathogenic autoreactivity (Nat Commun 2024; Kidney Int 2025; iScience, 2026). They have now partnered with venture capital groups and pharma, and are now in clinical trial development for their lead TCR-Treg product to treat lupus.



1 September 2026 (Tuesday)
10.30 – 11.30 AM (Singapore Time)

SIgN Seminar Room
8A Biomedical Grove, Immunos, #04-06
Singapore 138648

*Seminar is
open for all
to attend.*

*Registration
is not
required.*

