

Beyond Insulin:

Innovative research in T1D prevention and cure



AUSTRALASIAN
TYPE 1 DIABETES
IMMUNOTHERAPY
COLLABORATIVE

Speaker's name: A/Prof. Joshua Ooi

Seminar date: Friday, 25th October 2024, 1-2pm AEST

Seminar title: Antigen-specific Tregs to treat autoimmune diseases

Zoom link: <https://us02web.zoom.us/j/5056623028> **Passcode:** 230004

About the speaker: A/Prof. Ooi (PhD, 2009) is an NHMRC Leadership Fellow and Head of the Treg Therapies Group at Monash University. The vision of his group



is to translate their high-profile experimental work on regulatory T cells (Tregs) into clinical treatments for patients with autoimmune diseases. He has received numerous prizes for these works including the international Mosaic of Autoimmunity Award, Best Science Awards from both the Australian Immunology and Nephrology societies and, more recently, the Victoria Prize for Science and Innovation.

Brief outline of seminar content: A/Prof. Ooi has published his work in prestigious journals (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 were 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 autoantigen in lupus and showed that these specific Tregs could effectively suppress pathogenic autoreactivity (Nat Commun 2024). He has recently received funding from Breakthrough T1D to develop a TCR-Treg therapy for T1D.

For more information about the seminar series, please contact Michelle So mso@svi.edu.au