

## SIgN SEMINAR

Hosted by Dr Wei WU



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## Leveraging Chemical Proteomics to Develop New Mechanisms of Modulating Immunology

Most existing drugs target a tiny proportion of the human proteome and share similar mechanism of action. Consequently, we lack drugs for many proteins with genetically defined roles in immunology and disease. Chemical proteomics platforms, such as activity-based protein profiling mass spectrometry (ABPP-MS), have emerged over the last 20 years as a powerful way to address this challenge and develop drugs with unique targets and mechanisms. This seminar will highlight a recent example of how we applied ABPP-MS to develop an allosteric inhibitor of the immunoregulatory kinase JAK1, which has distinct pharmacology due to its unconventional mechanism of action. I will also highlight several other examples of how our lab are currently using chemical proteomics to expand the druggability of immune cells and to study the mechanisms of immunoregulatory metabolites and natural products.



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22 April 2025 (Tuesday) 3 – 4 PM (Singapore Time) SIgN Seminar Room 8A Biomedical Grove, Immunos, #04-06 Singapore 138648

Seminar is open for all to attend.

Registration is not required.