

THE GIS SPEAKER SERIES

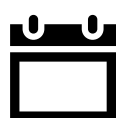


Chemical and computational proteomics for functional target discovery

Dr. Chu WANG

Professor of Chemical Biology, Peking University, China

Host: YU Zutao



Wednesday, 30 September 2026
11am – 12pm



GIS L2 – Seminar Room
60 Biopolis Street, Genome,
Singapore 138672

About The Speaker

Prof. Chu Wang received his Ph.D. in 2007 from the University of Washington under the guidance of Professor David Baker, training in the area of computational protein structural prediction and design. He then worked as a postdoctoral fellow with Professor Benjamin Cravatt at The Scripps Research Institute, La Jolla, and developed multiple chemical proteomic methods to profile reactive cysteines and modifications in proteomes. In 2014, he joined Peking University to start his independent career and was promoted to tenured professor of Chemical Biology in 2020. His research interest is to develop chemical and computational proteomics methods to enable quantitative profiling of functional enzymes, protein post-translational modifications as well as protein-ligand interactions in proteomes.

About The Seminar

Genome sequencing projects have revolutionised our view of the complexity of prokaryotic and eukaryotic proteomes; however, we are also left with a daunting challenge of functionally annotating these large number of predicted proteins. Chemical proteomic methods, such as activity-based protein profiling (ABPP), have been developed aiming at systematically discovering new functional targets directly from native proteomes. In this talk, Prof Wang will present recent progresses from his laboratory which combine ABPP-based chemical proteomics and AI-based computational strategies to uncover the functional targets of ligand/cofactor binding and post-translational modifications in proteomes, which includes development of chemoproteomic methods for profiling functional residues modified by reactive metabolites as well as chelated by metals.