

## **Singapore Symposium on Natural Products and Biosynthetic Enzymes**

Dates: 14-15 July 2025

Venue: NUS, S4-02-08, PPS Hub

### **Monday, 14 July 2025**

**8:50 Introduction to Symposium, Brandon Morinaka**

**9:00 Xiaofeng Cai**, School of Pharmacy, Huazhong University of Science and Technology

Force-enhanced Sensitive and Specific Detection of DNA-intercalative Agents  
Directly from Microorganisms at Single-molecule Level

**9:25 Yifeng Wei**, Singapore Institute of Food and Biotechnology Institute, A\*STAR

Exploring New Enzyme Chemistry in the Anaerobic Microbiome

**9:50 Aya Yoshimura**, Faculty of Pharmaceutical Sciences, Hokkaido University

Natural Product Discovery Using Bacterial Membrane Vesicles in the Post Genomic Era

**10:15 Coffee, Outside PPS Hub**

**10:45 Yi Wei Tooh & Qianqian Guo**, Department of Pharmacy and Pharmaceutical Sciences, NUS

Discovery and Bioinformatic Expansion of Cyclophane RiPPs

**11:10 Ryosuke Sugiyama**, Graduate School of Pharmaceutical Sciences, Chiba University

Stable Isotope Labelling for Metabolic Pathway Analysis of Health-promoting Chemicals in Plants

**11:35 Chin-Soon Phan**, Latvian Institute of Organic Synthesis

Cross-linking enzymes WprB and ShyB in RiPP biosynthesis

**12:00 Lunch, Faculty of Science Events Lounge (C4-02-10)**

**13:30 Narumi Shioi**, Faculty of Fukuoka Medical Technology, Teikyo University

How Venomous Animals Resist Their Own Toxins: The Role of Regulatory Proteins in Venomous Snakes

**13:55 Tommy Wang**, Singapore Institute of Food and Biotechnology Institute, A\*STAR

Break-Free: Ambient Bench-Top Operation of Oxygen-Sensitive Biochemistry

**14:20 Reiko Ueoka**, Laboratory of Functional Biology of Aquatic Organisms, Kitasato University

Discovery of Novel Natural Products from a Marine Bacterium by Genome Mining

**14:45 Coffee**

**15:15 Alexander Vinogradov**, Department of Pharmacy and Pharmaceutical Sciences, NUS

Quantitative ultra-high-throughput profiling of RiPP enzyme specificities using mRNA display

**15:40 Fong Tian Wong**, Molecular Engineering Lab, A\*STAR

Applications of AI and Computational Methods in Protein Engineering and Discovery

**16:05 Min Luo**, Department of Biological Sciences, NUS

Mechanistic Insights into a Newly Identified Subclass of Class III-b Lanthipeptide modification enzyme

**18:00 Dinner for Visiting Speakers, Chin Huat Live Seafood**

### **Tuesday, 15 July 2025**

**9:00 Wen Shan Yew**, Department of Biochemistry, NUS

Repurposing Biology through Synthetic Enzymology - For Human and Planetary Health

**9:30 Ikuro Abe**, Graduate School of Pharmaceutical Sciences, University of Tokyo

Unusual Enzyme Reactions in Natural Product Biosynthesis

**10:00 Yee Hwee Lim**, Institute of Sustainability for Chemicals, Energy and Environment, A\*STAR

TBA

**10:30 Coffee, Outside PPS Hub**

**11:00 Toshiyuki Wakimoto**, Faculty of Pharmaceutical Sciences, Hokkaido University

Chemoenzymatic Synthesis of Cyclic Peptides by Non-Ribosomal Peptide Cyclases

**11:30 Rachel Ee**, Department of Pharmacy and Pharmaceutical Sciences, NUS

Peptide Nanonets for Antibacterial Therapeutics

**12:00 Hendrik Luesch**, Department of Medicinal Chemistry, University of Florida

A Cyanobacterial Twist to the Kahalalide Story with Evolutionary Implications

**12:30 Lunch, Faculty of Science Events Lounge (C4-02-10)**

**14:00 Christina Chai**, Department of Pharmacy and Pharmaceutical Sciences, NUS

Harnessing Natural Product Scaffolds in Antiviral Drug Development: an Unexpected Discovery of a Protein-Protein Interaction (PPI) Disruptor Targeting Coronaviruses.

**14:30 Jörn Piel**, Institute of Microbiology, ETH Zurich

Complex Biosynthetic Systems from Bacteria

**16:30 Social Event/Happy Hour (Speakers only), Jaguarita's Craft Beer Bar**

## List of Participants

NA	Name	Affiliation
1	Qianqian Guo	NUS
2	Jiaqi Lyu	NUS
3	Yi Wei Tooh	NUS
4	Ziwei Yao	NUS
5	Gregory Gunawan	NUS
6	Xinyue Liu	NUS
7	Andrew Yeo	NUS
8	Yuxin Hou	NUS
9	Kenny Koh	NUS
10	Jenet Princy	NUS
11	Haojie Zhang	NUS
12	Xiaofeng Cai	Huazhong University of Science and Technology
13	Reiko Ueoka	Kitasato University
14	Ryosuke Sugiyama	Chiba University
15	Aya Yoshimura	Hokkaido University
16	Alex Vinogradov	NUS
17	Narumi Shioi	Teikyo University
18	Tommy Wang	A*STAR
19	Fong Tian Wong	A*STAR
20	Min Luo	NUS
21	Yifeng Wei	A*STAR
22	Wen Shan Yew	NUS
23	Ikuro Abe	University of Tokyo
24	Aica Suarez	Allozymes
25	Hendrik Luesch	University of Florida
26	Yee Hwee Lim	A*STAR
27	Jörn Piel	ETH Zurich
28	Chin-Soon Phan	Latvian Institute of Organic Synthesis
29	Toshiyuki Wakimoto	Hokkaido University
30	Billion Surya Lioe	A*STAR
31	Jason Tan	A*STAR
32	Guo Shaofei	NUS
33	Sean Lee	NUS
34	Wai-Lun Chan	NUS
35	Joshua Yong	NUS
36	Nhan Tram	NUS
37	Chen Wei Meng	NUS
38	Alicia Lim	NUS
39	Nathan Poh	NUS
40	Kini Manjunatha	NUS
41	Rachel Ee	NUS
42	Christina Chai	NUS
43	Brandon Morinaka	NUS