

MMI 291 Seminar Series

Current Theme: Interdisciplinary Research
Spring Quarter 2024 – CRN 48450

Friday Seminar at 12:10-1 p.m.
GBSF Auditorium, Room 1005

“Synthetic glycans and glycoconjugates
as enabling molecular tools for
microbiology and immunology”

Research Bio

Our research interests are at the interface of chemistry and biology with focus on carbohydrate chemistry and glycobiology. Our research group is trying to understand carbohydrate-related biological processes in the areas of human health, cancer, immunology, inflammation, bacterial and viral infection.

We use the combination of chemical and enzymatic approaches to synthesize and study biomedically important complex carbohydrates and glycoconjugates. We also use biochemistry and molecular biology tools to explore the structure-function relationship of the enzymes involved in the biosynthesis of carbohydrates and glycoconjugates.

Publications

Senage T, Paul A, Le Tourneau T, Fella-Hebia I, Vadori M, Bashir S, Galiñanes M, Bottio T, Gerosa G, Evangelista A, Badano LP, Nassi A, Costa C, Cesare G, Manji RA, Cuff de Monchy C, Piriou N, Capoulade R, Serfaty JM, Guimbretière G, Dantan E, Ruiz-Majoral A, Coste du Fou G, Leviatan Ben-Arye S, Govani L, Yehuda S, Bachar Abramovitch S, Amon R, Reuven EM, Atiya-Nasagi Y, Yu H, Iop L, Casós K, Kuguel SG, Blasco-Lucas A, Permanyer E, Sbraga F, Llatjós R, Moreno-Gonzalez G, Sánchez-Martínez M, Breimer ME, Holgersson J, Teneberg S, Pascual-Gilabert M, Nonell-Canals A, Takeuchi Y, **Chen X**, Mañez R, Roussel JC, Soullillou JP, Cozzi E, Padler-Karavani V. “The role of antibody responses against glycans in bioprosthetic heart valve calcification and deterioration”. *Nat Med*. 2022 Feb;28(2):283-294. doi: 10.1038/s41591-022-01682-w. Epub 2022 Feb 17. PMID: 35177855; PMCID: PMC8863575.

Mishra B, Yuan Y, Yu H, Kang H, Gao J, Daniels R, **Chen X**. “Synthetic Sialosides Terminated with 8-N-Substituted Sialic Acid as Selective Substrates for Sialidases from Bacteria and Influenza Viruses”. *Angew Chem Int Ed Engl*. 2024 May 7:e202403133. doi: 10.1002/anie.202403133. Epub ahead of print. PMID: 38713874.

June
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Xi Chen, Ph.D.
Professor
Department of Chemistry
University of California, Davis

June 7, 2024
12:10 – 1 p.m.
GBSF Auditorium
Room 1005

Medical Microbiology
and Immunology
School of Medicine

Seminar Contact:
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We hope to see you there!