

The Walter A. Szarek Lecture Series

Walter A. Szarek was born on April 19, 1938 in St. Catharines, Ontario. He received his B.Sc. in Honours Chemistry in 1960, and his M.Sc. in 1962, from McMaster University. In 1962 he began studies towards the Ph.D. Degree with Professor J. K. N. Jones at Queen's University; he completed his studies in 1964 in the area of carbohydrate chemistry. He then went on to do postdoctoral work with Professor Melville L. Wolfrom who had developed the outstanding school of carbohydrate chemistry at The Ohio State University, Columbus, Ohio. Within a year he was offered the position of Assistant Professor of Biochemistry in the Department of Physiology and Biochemistry at Rutgers University in New Jersey. After launching his independent research program, but longing to be part of a Chemistry Department, in 1967 he returned to Queen's as Assistant Professor of Chemistry where he rose through the ranks to Full Professor in 1976. During the period 1976–1985 he was also Director of the Carbohydrate Research Institute at Queen's. In 2003 he became Professor Emeritus, and continued to be very active in research for several years. Professor Szarek's outstanding achievements in carbohydrate chemistry were recognized by the receipt of the American Chemical Society Claude S. Hudson Award in 1989 and the Melville L. Wolfrom Award in 1992.

Professor Szarek's research in carbohydrates was truly comprehensive, encompassing many diverse aspects, both chemical and biological. His knowledge was encyclopedic and he quickly became known as The Godfather of the carbohydrate family and The Prince of hospitality. In addition, he had a very active research program in the areas of Medicinal Chemistry and Drug Development. He is the author of over 300 peer-reviewed publications and has held numerous patents in the areas of Alzheimer's Disease, Cancer, Malaria, Anti-bacterial Agents, and therapeutic drugs for the treatment of chronic and acute pain. He was a co-founder of Neurochem, Inc. (now Bellus Health, Inc.) and was associated with PainCeptor Pharma Corp., and Osta Biotechnologies, Inc.

Professor Szarek was, at all times, a principled educator at both the undergraduate and graduate levels, having won four teaching awards including the Queen's University Arts and Science Undergraduate Teaching Excellence Award in 1989. His distinguished research career involved the direction of 23 M.Sc and 32 Ph.D. students, and ~85 postdoctoral fellows. His caring and insightful mentorship both in chemistry and in life evoked in his students, postdoctoral fellows, and colleagues, great respect and affection.

The Walter A. Szarek Lecture Series was established through an endowment initiated by a former student, B. Mario Pinto, and with generous contributions from past students, postdoctoral fellows, and colleagues. It is testament to his profound influence on the next-generations of scientists. A substantial donation was also made by the Szarek family in memory of Professor Szarek's brother, John.

PREVIOUS WALTER A. SZAREK LECTURERS

2025 • *D. Vocadlo*

2024 • *M. Huang*

2022 • *J. Kohler*

2022 • *T. Lowary*

2019 • *L. Kiessling*

2018 • *F. Stoddart*

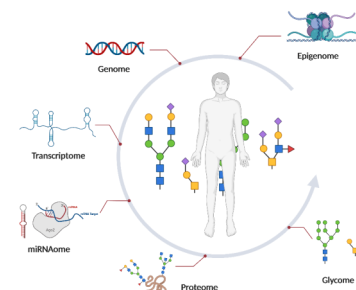


The Department of Chemistry, Queen's University

is honoured to host the 2026
Walter A. Szarek Lecture:

Dr. Lara Mahal
University of Alberta

"A Sweet Surprise: miRNA
regulation of the glycome"



Friday, September 18, 2026

11:30 AM

Room 117, Chernoff Hall

DR. LARA MAHAL



Lara Mahal

Department of Chemistry
University of Alberta.
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Dr. Lara K. Mahal obtained her Ph.D. in Chemistry at the University of California at Berkeley (2000) with Professor Carolyn Bertozzi. She was a Jane Coffin Childs Postdoctoral Fellow with Professor James Rothman at Sloan-Kettering Institute (2000-2003), before starting her first independent position as an Assistant Professor in Chemistry at the University of Texas at Austin in 2003. Post-tenure in 2009, Professor Mahal moved to New York University, where she was faculty member from 2009-2019. In September 2019, she joined the faculty of the University of Alberta as the Canada Excellence Research Chair (CERC) in Glycomics, and she is the Founding Director of the Glycomics Institute of Alberta. She is an expert in glycomics and systems-based approaches to understand glycan regulation and function. She also developed lectin microarray technology. Which provides a high-throughput method for glycomics that is now widely applied to understand systems from clinical cancer research to host-pathogen interactions. Dr. Mahal is also known for her work on microRNA regulation of glycosylation and recently discovered upregulation as a major mechanism of miRNA action in dividing cells.

SELECTED HONOURS & AWARDS

- Horace Isbell Award for Carbohydrate Chemistry (ACS; 2017),
- Canada Excellence Research Chair (CERC) in Glycomics (2019)
- ASTech Award for Medical Research (2024)
- Tier I Canada Research Chair in Glycomics and miRNA (2026)
- Fellow of the Royal Society of Canada (2026)

RECENT PUBLICATIONS

- Batu, T. et al. microRNAs bidirectionally regulate FUT1 to modulate α 1,2-fucosylation and cancer-related biology. *J. Biol. Chem.*, **2026**, 302, 113217
- Demir, R.; Mahal, L.K. Galactosylated GAG from a Snail Leads to Better Clot Buster. *ACS Central Science*, **2026**.
- Agrawal, P. et al. Integrated *in vivo* functional screens and multi-omics analysis identify α -2,3-sialylation as essential for melanoma maintenance. *Science Advances*, **2025**.
- Jame-Chenarboo, F., et al. Profiling the Regulatory Landscape of Sialylation through miRNA Targeting of CMP-Sialic Acid Synthase. *J. Biol. Chem.*, **2025**, 301, 108340.
- Jame-Chenarboo, F. et al. High-Throughput Analysis Reveals miRNA Upregulating α -2,6-Sialic Acid through Direct miRNA-mRNA Interactions. *ACS Central Science*, **2022**, 8, 1527-1536.