# Fundamentals of Glycomics, Glycoprotemics, and Glycosaminoglycan (GAG) Analysis

Virtual Course 2 Schedule

December 9-10, 2026

Wednesday, December 9, 2026

9:00 a.m. - 10:30 a.m.

Lecture -"Overview of Glycoprotein Structures, Biosynthesis and Function"

Dr. Kelley Moremen

10:30 a.m. – 11.00 a.m. – Break

11.00 a.m. – 12.00 p.m.

Lecture –"Introduction to Glycomics Analysis"

Dr. Parastoo Azadi

12:00 p.m. – 1:00 p.m. – Lunch Break

1:00 p.m. – 3:30 p.m.

Laboratory Discussion: Glycomics Analysis by Matrix-Assisted Laser Desorption Ionization-Time-of-Flight (MALDI-TOF) and Electrospray Ionization (ESI) Mass Spectrometry (MS)

- MALDI-TOF Profiling
- Direct Infusion – Mass Spectrometry
- MS/MS and MSn Methods

Laboratory Discussion – Glycopeptide Analysis and Glycoproteomics

- Protease and Enzymatic Treatments
- Chromatography and Instrument Settings
- Data Considerations

Drs. Stephanie Archer-Hartmann, Bhoj Kumar & Sonali Sunsunwal

3:30 p.m. – 4:00 p.m. - Break

4:00 p.m. – 5:00 p.m.

Lecture – "Glycans Linked to Lipids and Lipid Precursors"

Dr. Michael Tiemeyer

Thursday, December 10, 2026

9:00 p.m. – 10:30 a.m.

Lecture – “Structure and Function of Glycosaminoglycans in Health and Disease”

Dr. Ryan Weiss

10:30 a.m. – 11:00 a.m. - Break

11:00 a.m. – 12:00 p.m.

“Databases and Software Tools for Glycomics and Glycoproteomics”

Dr. Rene Ranzinger

12:00 p.m. – 1:00 p.m. – Lunch Break

1:00 p.m. – 2:30 p.m.

Lecture – “Introduction to Glycoproteomics” Dr. Lance Wells

2:30 p.m. – 3:30 p.m. - Break

3:30 p.m. – 4.30 p.m.

Lecture – “Chemo-Enzymatic Synthesis of Glycolipids”

Dr. Ana Ramirez