

Glycoprotein and Glycopeptide analysis by Mass Spectrometry: an Update.

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Much of the recent progress in biomolecule analysis can be attributed to developments in the techniques and instrumentation of mass spectrometry (MS). The advent of high-sensitivity Time-of-Flight (ToF) and orthogonal-acceleration Time of Flight (oaToF) analyzers, coupled with Electrospray and Matrix Assisted Laser Desorption ionization (MALDI) and advanced data analysis methods has enabled many researches to quickly and accurately characterize new molecules and probe biological systems. Analyses can range from characterization of intact glycoproteins by quantitatively comparing the relative glycoforms, to accurate mass analysis of glycans and glycopeptides to probe and confirm molecular composition.

The seminar will introduce and discuss some of the new analysis methods and technology, and discuss their application to a number of analytical challenges. These will include the analysis of glycopeptides by LC/MS/MS to ascertain the site and nature of glycolysis by collisionally-induced fragmentation; glycan characterization by MALDI, and deconvolution of complex protein MW profiles.