

DMMC Course PROTEOMICS: METHODS & APPLICATIONS

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Biological Mass Spectrometry: Overview

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Abstract

During the past two decades, mass spectrometry has become a major technique for the identification, characterisation and quantification of biological molecules and bioactive drugs. In particular, the impact of mass spectrometry on proteomics and metabolomics has been phenomenal. This lecture will give an overview of the way various mass spectrometers work and how they can be applied to solve problems in the life sciences.

Biography

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Achim Treumann obtained his diploma in biochemistry (Dipl. Biochem.) from the University of Tübingen (Germany) in 1992. Subsequently he received excellent training in all aspects of analytical biochemistry in the laboratory of Mike Ferguson at the biochemistry department of the University of Dundee (Scotland), performing structural and functional studies on GPI anchored proteins of human and protozoan origin. A fellowship from the Japanese Society for the Promotion of Science (JSPS) took him to the lab of Prof Koiti Titani at Fujita Health University in Toyoake, Japan. He returned to Scotland to work with Steve Homans at the University of St. Andrews on the structure of lipoarabinomannan, a glycolipid from the pathogen *Mycobacterium tuberculosis*, and he continued this work when he moved with Steve from St. Andrews to Leeds. In February 2002 he was appointed director of mass spectrometry in the Department of Clinical Pharmacology at the Royal College of Surgeons in Ireland (RCSI).

