Institute of Molecular and Cell Biology

A*STAR

SEMINAR ANNOUNCEMENT

We would like to invite you to attend this seminar hosted by A/Prof. Frederic Bard:

Date: 29 November 2017, Wednesday

Time: 2:00PM – 3:00PM

Venue: Level 3, IMCB Seminar Room 3-46, Proteos, Biopolis

Speaker: Prof. Sabine Flitsch, MIB & School of Chemistry, The University of Manchester, UK

Title: Analytical Tools in GlycoBiotechnology

Complex carbohydrates and their conjugates are responsible for an enormous variety of functions in Biology. They play essential dietary roles in maintaining a healthy human and animal microbiome, control cell surface recognition in immune response and infection, and act as biomarkers for cancer. Glycans are important in many areas of biotechnology such as functional foods, diagnostics and biopharmaceuticals including cancer treatment and vaccines. High quality and fast analysis of glycans will be an essential part of multi-omic approaches (e.g. genes, proteins, carbohydrates, lipids) but glycomics tools still lack behind genomics and proteomics. Our aim is to develop platforms for structural and functional glycoconjugate analysis including i. development of a comprehensive toolbox of selective enzymes both for hydrolysis and synthesis of glycoconjugates; ii. hyphenated fragment-based carbohydrate sequencing methods that use mass spectrometry, ion mobility spectrometry and IR spectroscopy; iii. glycan arrays to analyse carbohydrate-protein interactions.

Biography:

Sabine Flitsch graduated with a Diploma in Chemistry from the University of Münster (Germany) and obtained her DPhil in 1985 from the University of Oxford. She spent three years at the Massachusetts Institute of Technology, USA as a Research Fellow (with H. G. Khorana) before returning to the UK to hold academic positions at the Universities of Exeter, Oxford, Edinburgh and Manchester. She is currently Professor of Biological Chemistry at the University of Manchester with her research group housed at the Manchester Institute of Biotechnology (MIB).

ALL ARE WELCOME *(No registration required)*