

Guest lecture

“The future role of mass spectrometry in biology”

By Professor Carol Vivien Robinson – the forthcoming honorary doctor at the official ceremony for the annual celebration 2017 at SDU

27 October 2017

11.00 AM in the PR group meeting room “Interaktionen” (V11-512-2)



Dame Carol Vivien Robinson

Dr Lee’s Professor

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Abstract: Since the first mass spectra of non-covalent protein complexes were reported, focusing on soluble complexes, it became possible to elucidate ligand binding properties and subsequently to define subunit interaction maps and topological models. A long-term goal has been to extend the approaches developed for soluble complexes to one of the most challenging biological targets - that of membrane proteins and their assemblies.

Recent discoveries have enabled delivery of membrane complexes from detergent micelles in solution. By maintaining interactions between membrane and cytoplasmic subunits in the gas phase, it is now possible to investigate the effects of lipids, nucleotides and drugs on intact membrane assemblies. These investigations reveal allosteric and synergistic effects of small molecule binding and expose the consequences of post-translational modifications. In my lecture I will present recent progress in the study of protein complexes, focusing particularly on complexes extracted from membranes, and present future prospects for mass spectrometry in structural biology.

Hosts: Professor Peter Roepstorff and Professor Ole Nørregaard Jensen, Department of Biochemistry and Molecular Biology, SDU.