



SFB 635

Posttranslational control
of protein function

Seminars in Genetics and Molecular Cell Biology

Johann Klare
Physics Department,
University of Osnabrueck

Site-directed spin labelling EPR – targeting protein structure, dynamics and function

Site-directed spin labelling (SDSL) EPR spectroscopy is a powerful tool to elucidate the structural and dynamic properties of biomolecules and biomolecular systems. It offers a wide range of techniques, from the “classical” cw methods – providing information about the spin label side chain mobility, solvent accessibility and the polarity of its immediate environment, to pulse EPR methods like ESEEM and PELDOR/DEER. The latter technique, especially since commercial instruments became available, has become one of the most popular tools in structure-function studies by EPR during the last decade.

This presentation gives an introduction into the methodology of SDSL EPR and provides an overview on selected examples from work on different proteins and protein complexes, membrane proteins as well as soluble proteins undergoing dimerization, and an approach where, instead of labelling the protein under investigation, spin labelled ligands/inhibitors of a protein are used.

Tuesday, April 19, 2011 at 02.00 p. m.

Institute for Genetics,
Zülpicher Str. 47 a, Lecture hall, 4th floor

Host: Gerrit Praefcke, Institute for Genetics,
University of Cologne

www.sfb635.uni-koeln.de