



Polymer- & Soft-Matter-Seminar

Tuesday,
30th April 2013

at: 5.15 pm

VSP1 1.26

Von-
Seckendorff-
Platz 1,
06120 Halle

Dr. Rasmus Linser

Department for Biological Chemistry
and Molecular Pharmacology,
Harvard Medical School, Boston

"Biology within Membranes: Solid and Solution State NMR approaches"

Cellular membranes define the space of numerous biological processes, including structure, transport, and signaling processes. One of the emerging tools for characterization of structure and function of membrane proteins is solid-state NMR, which has particularly been benefiting from fast spinning enabling manifold conceptually new techniques. Likewise, in the solution state, lipid-nanodisc techniques provide immaculate mimics of membranes new to NMR.

The fluidity and composition of cell membranes are tightly regulated by an intriguing feedback loop towards transcription of respective key enzymes, which itself involves complex mechanisms of intra-membrane cell physiology. We investigate one of the key regulator proteins in terms of its structure and dynamics with the aim to understand the specificity and efficacy of this eminent example of regulation in detail.