

Membrane Biophysics SS2011

Prof. Dr.U.Alexiev

Mon. 18. 7.

9:15-10:45 Introduction, Membrane components and structure

11:00-12:30 Membrane proteins, Fluorescence labeling of membrane proteins, Solubilisation

Lunch

14:00-18:00 **Experiment:** Isolation and purification of membrane proteins

Tue. 19. 7.

9:15-10:45 Surface properties of membranes
-mechanics

11:00-12:30 Surface properties of membranes
-electrostatics

Lunch

14:00-18:00 **Experiment:** Modification of membrane proteins with reporter dyes

Wed. 20. 7.

9:00-12:00 **Experiment/ Excercise:** Determination of surface potential

Lunch

14:00-18:00 **Lecture/ Excercise:** Determination of surface potential

Thu. 21. 7.

9:15-10:30 Fluorescence spectroscopy and microscopy of membranes
Experimental methods of vesicle formation

11:00-12:30 Thermodynamics, Stability of membranes and membrane proteins

Lunch

14:00-18:00 **Experiment:** Electroformation of vesicles, microscopy and spectroscopy

Fri. 22. 7.

9:00-10:30 Selected topics

11:00-12:30 **Excercise:** Data analysis Electroformation of vesicles, microscopy and spectroscopy

Lunch

14:00-15:00 **Questions**

15:30-17:00 **Exam**