



Cluster of Excellence
Frankfurt

Workshop on Membrane Protein Complexes in Bioenergetics

3rd November 2008

Meeting Venue:
Guest House
of the
Goethe University
Frauenlobstraße 1
60325 Frankfurt/Main



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CC: P. Lastreco, MPIBP - 1000 - 10/2008

Please register by e-mail until
October 24th, 2008 at:
reichert@zbc.kgu.de

Organizing committee:
Ulrich Brandt, Carola Hunte,
Andreas Reichert

PROGRAM

PROGRAM

Electron transport

- 9:00 **Hartmut Michel** - Respiratory chain complexes: Overview of the projects in the Dept. Molecular Membrane Biology at the MPI of Biophysics
- 9:20 **Bernd Ludwig** - Biogenesis of metal centers in subunit I of oxidase
- 9:40 **Eva Biegel** - The Rnf complex: a novel ion-translocating ferredoxin:NAD⁺- oxidoreductase
- 10:00 **Ulrich Brandt** - Structural and functional insights into mitochondrial complex I
- 10:20 **Thomas Prisner** - Pulsed EPR methods applied to respiratory chain protein complexes
- 10:40 **Coffee break**

Dynamics and spectroscopy

- 11:10 **Josef Wachtveitl** - Primary reactions of proteorhodopsin
- 11:30 **Jens Bredenbeck** - Molecular dynamics and interactions in realtime - From small molecules to membranes
- 11:50 **Harald Schwalbe** - Chemistry and NMR spectroscopy to study membrane proteins
- 12:10 **Volker Dötsch** - Combination of cell-free synthesis and liquid state NMR spectroscopy for the structure determination of membrane proteins
- 12:30 **Lunch**

Structure and organization of ATP synthases

- 13:40 **Volker Müller** - Structure and function of ATP synthases from archaea
- 14:00 **Thomas Meier** - Assembly, stability and structures of F₁F₀ ATP synthases
- 14:20 **Ilka Wittig** - Structural organization of mitochondrial ATP synthase
- 14:40 **Werner Kühlbrandt** - Cryo-EM of membrane protein complexes in bioenergetics

15:00 **Coffee break**

Cellular bioenergetics

- 15:30 **Andreas Reichert** - Dynamic organization of the inner mitochondrial membrane
- 15:50 **Heinz Osiewacz** - Genetic manipulation of cyclophilin D in *Podospora anserina*: impact on ageing
- 16:10 **Enrico Schleiff** - Energetics of protein translocation
- 16:30 **Edmund Kunji**
Medical Research Council, Cambridge UK
Substrate binding and transport mechanism of mitochondrial transporters by analysis of symmetry
- 17:30 **Discussion**

Dinner

at the Guest House of the Goethe University

