



TRR 83 Transregional Collaborative Research Centre 83
Heidelberg - Bonn - Dresden
Molecular Architecture and Cellular Functions of
Lipid/Protein Assemblies

2. International SFB/Transregio 83 Symposium

Molecular Architecture and Cellular Functions of Lipid/Protein Assemblies

Heidelberg, September 26 - 27, 2016

Program

Scientific Organizers:

**Thomas Söllner
Britta Brügger**

Venue

BioQuant Center
Lecture Hall 041, Ground Floor
Im Neuenheimer Feld 267
Ruprecht-Karls-Universität Heidelberg
69120 Heidelberg

Participation in the meeting is free of charge

We gratefully acknowledge support by:



Monday – September 26, 2016

Session I: Lipids in protein folding/function

- 8.30 – 9.00 a.m. *Registration*
- 9.00 – 9.10 a.m. *Welcome* Thomas Söllner
- 9.10 – 9.55 a.m. **Plenary lecture**
Membrane Protein Folding: Biology Meets Thermodynamics
Stephen H. White
University of California, Irvine
- 9.55 – 10.25 a.m. Lipid-mediated protein-protein interactions
Wonhwa Cho
University of Illinois, Chicago
- 10.25 – 10.55 a.m. How to build a power plant: Mitochondrial protein biogenesis
Peter Rehling
University Medical Center Göttingen
- 10.55 – 11.30 a.m. *Coffee break and poster session*
- 11.30 – 12.00 a.m. Pas de deux: Allosteric regulation of growth factor receptors by lipids
Ünal Coskun
Paul Langerhans Institute Dresden
- 12.00 – 12.30 p.m. Intracellular endo cannabinoid trafficking and Hedgehog signaling
Suzanne Eaton
MPI of Molecular Cell Biology and Genetics, Dresden
- 12.30 – 1.00 p.m. GTPase activation and lipids
Irmi Sinning
Heidelberg University
- 1.00 – 2.00 p.m. *Lunch*

Session II: (Ultra) structural investigation of protein-lipid interactions

- 2.00 – 2.30 p.m. The molecular toolbox for studying lipids in cells
Carsten Schultz
EMBL Heidelberg
- 2.30 – 3.00 p.m. Approaching molecular architecture and cellular functions of lipid-protein interactions with super-resolution optical microscopy
Christian Eggeling
University of Oxford
- 3.00 – 3.30 p.m. Electron Microscopy Approaches to Studying Lipid-Protein Interactions
Tom Walz
Harvard Medical School
- 3.30 – 4.00 p.m. *Coffee break and poster session*
- 4.00 – 4.30 p.m. What are lipid transfer proteins for?
Tim Levine
University College London
- 4.30 – 5.00 p.m. SMP-domain proteins in lipid homeostasis
Karin Reinisch
Yale School of Medicine, New Haven
- 5.00 – 5.30 p.m. Modeling lipid droplets on ER tubules
Michael Kozlov
Sackler Faculty of Medicine, Tel Aviv
- 7.00 p.m. *Dinner (Guest speakers and TRR 83 project leaders only)*

Tuesday – September 27, 2016

Session III:

Lipids in protein transport

9.00 – 9.45 a.m.

Plenary lecture

Molecular mechanisms of endosome biogenesis, tethering and fusion

Marino Zerial

MPI of Molecular Cell Biology and Genetics, Dresden

9.45 – 10.15 a.m.

PIP-mediated recruitment of membrane trafficking components to the endosome and lysosome

Scott Emr

Cornell University, Ithaca

10.15 – 10.45 a.m.

Diffusional barriers dictate receptor responsiveness and kinase activity during phagocytosis

Sergio Grinstein

University of Toronto

10.45 – 11.15 a.m.

Coffee break and poster session

11.15 – 11.45 a.m.

Unconventional Protein Secretion: Membrane Pore Formation at Protein-Lipid Interfaces

Walter Nickel

Heidelberg University

11.45 – 12.15 p.m.

Phosphatidylinositol Transfer Proteins and Neural Stem Cell Function in the Mouse

Vytas Bankaitis

Texas A&M Health Service Center, Bryan

12.15 – 12.45 p.m.

Regulation of membrane traffic by phosphatidylinositol 3-phosphate and its interacting proteins

Harald Stenmark

Oslo University Hospital

12.45 – 1.45 p.m.

Lunch

1.45 – 2.15 p.m.

Cryo-EM methods to study the structure of coat proteins assembled on membranes

John Briggs

EMBL Heidelberg

2.15 – 2.45 p.m.

Regulation of plasma membrane organization by active processes

Satajit Mayor

National Centre for Biological Sciences, Bangalore

Session IV:

Lipids in health and disease

2.45 – 3.15 p.m.

Class II fusion proteins and interactions with lipids

Félix Rey

Institut Pasteur, Paris

3.15 – 3.45 p.m.

Coffee break and poster session

3.45 – 4.15 p.m.

Lipids and proteins at the HIV-1 assembly site

Hans-Georg Kräusslich

University Hospital Heidelberg

4.15 – 4.45 p.m.

Synuclein-lipid interactions and Parkinson's

Harvey McMahon

University of Cambridge

4.45 – 5.15 p.m.

Recognition of lipid phase transition by the innate immune systems and novel therapeutic strategies for atherosclerosis

Eicke Latz

University of Bonn

7.00 p.m.

Dinner (Guest speakers and TRR 83 members only)