

Conference “Design and Light Control”

(30 min Talks + 10 min Discussion)

Wednesday, 30.08.2017

11.00 **Welcome Reception Symposium**

Session 1 – Chair: Alexander Heckel

11.10 **Ralph Wieneke** (Goethe University Frankfurt)
Optochemical biology – rewiring cellular processes in time and space

11.50 **Joakim Andréasson** (Chalmers, Gothenburg)
Targeting DNA and enzymes with molecules and light

12.30 **Lunch** (60 minutes)

Session 2 – Chair: Alexander Gottschalk

13.30 **Jana Liewald** (Goethe University Frankfurt)
Optogenetics toolbox v2.0

14.10 **Barbara di Ventura** (University of Heidelberg)
Controlling protein export with blue light in living cells

14.50 **Coffee break** (20 minutes)

Session 3 – Chair: Barbara di Ventura

15.10 **Boris Fürtig** (Goethe University Frankfurt)
Shedding light on RNA refolding reactions

15.50 **Martin Schnermann** (National Cancer Inst. Frederik)
Near-IR uncaging chemistry: Discovery and applications

16.30 **Coffee break** (20 minutes)

Poster Session – Chair: Christian Grünewald

16.50 **Poster Talks**

17.30 **Poster Session**

19.00 **Dinner**

Thursday, 31.08.2017

Session 5 – Chair: Martin Grininger

09.00 **Andrew Woolley** (University of Toronto)
Discovering light-switchable protein interactions using phage display

09.40 **Kevin Gardner** (City College of New York)
Nature’s eyes, scientists’ switches: structure, function and engineering of LOV-based photosensors

10.20 **Coffee break** (20 minutes)

Session 6 – Chair: Andrew Woolley

10.40 **Tobias Erb** (MPI Marburg)
CETCH me if you can: Designing and controlling synthetic pathways for the fixation of carbon dioxide

11.20 **Martin Grininger** (Goethe University Frankfurt)
Fatty acid synthases (FAS) in synthetic biology

12.00 **Lunch** (60 minutes)

Session 7 – Chair: Harald Schwalbe

13.00 **Kai Johnsson** (École Polytechn. Fédérale de Lausanne)
Semisynthetic fluorescent and bioluminescent sensor proteins

13.40 **Oliver Thorn-Seshold** (LMU of Munich)
Synthetic reagents for control of endogenous biological systems

14.20 **Coffee break** (20 minutes)

Session 8 – Chair: Chandra Tucker

14.40 **Harald Schwalbe** (Goethe University Frankfurt)
NMR and light

15.20 **Clemens Glaubitz** (Goethe University Frankfurt)
Detecting light-induced biochemical events in membranes by solid-state NMR

16.30 **Hike to “Weingut Höflich” including Dinner**

Friday, 01.09.2017

Session 9 – Chair: Josef Wachtveitl

09.00 **Christian Bamann** (Goethe University Frankfurt)
Variation of light-driven ion transport by rhodopsins

09.40 **Sonja Kleinlogel** (University of Bern)
Customizing opsin-based light-switching: engineering bistable opsin-receptor chimeras for vision restoration and beyond

10.20 **Coffee break** (20 minutes)

Session 10 – Chair: Oliver Thorn-Seshold

10.40 **Chandra Tucker** (University of Colorado)
Light control of protein activity using engineered plant photoreceptors

11.20 **Harald Janovjak** (IST Austria)
Synthetic Physiology: Optical intervention with BETA-cell degeneration

12.00 **Closing Remarks**

12.10 **Lunch**