

Wednesday, June 5th

13:00 Welcome & Registration

BIOPHYSICS IN DRUG DISCOVERY I

14:00 Opening Remarks

Ulrich Rant, Dynamic Biosensors

14:15 Biophysical Methods in Drug Discovery – Overview

Dirk Ullmann, Evotec, Munich

14:45 Good News from an Old Protein:
Resolving Albumin Binding Events

Stefan Petry, Sanofi, Frankfurt

15:15 Analysis of Protein Conformations with switchSENSE®

Sebastian Letschert, Dynamic Biosensors

15:35 Coffee Break

DNA/RNA BINDERS I

16:00 NMR, Biophysical Methods and Integrative Structural Biology for Studying Conformational Dynamics in Biomolecular Recognition

Michael Sattler, Bavarian NMR Center, Technical University Munich, Helmholtz Center Munich, Munich

16:30 Kinetics of RNA Binding Impart Target Specificity to an mRNA Processing Complex

Michael Webster, IGBMC Institute of Genetics and Molecular and Cellular Biology, Illkirch-Graffenstaden

17:00 Structural and Kinetic Profiling of DNA-Binding Polyamide Analogues

Glenn Burley, University of Strathclyde, Glasgow

19:00 Networking Event at Bavarian Beergarden
Haderner Augustiner, Würmtalstr. 113, 81375 München

Thursday, June 6th

08:30 Coffee & Registration

PROTEIN-PROTEIN & ANTIBODIES

09:00 Conditional Fc Receptor Binding –
What Effector Cells are Interested in

Tilman Schlothauer, Roche pRED, Penzberg

09:30 Mechanism of Action of a Potent Anti-HER2
Bispecific Antibody

Florian Kast, University of Zurich, Zurich

10:00 Two-Color Analysis of Bispecific Binders
with switchSENSE®

Herwin Daub and Johannes Reusch, Dynamic Biosensors

10:30 Coffee Break

DNA/RNA BINDERS II

11:00 Recognition and Processing of DNA Double-Strand
Breaks by Ku and its Complexes:
Insights from switchSENSE® Analyses

Jean-Baptiste Charbonnier, I2BC Institute of Integrated Biology of the Cell, Gif-s-Yvette

11:30 Southern California DRX² Adventures:
Establishing a switchSENSE® Core

Ite A. Offringa, University of Southern California, Los Angeles

12:00 New Biophysical Approaches to Study IRES RNA/
Ribosomes Interactions

Eric Ennifar, CNRS French National Centre for Scientific Research / University of Strasbourg, Strasbourg

12:30 Study of Protein-RNA Interactions Using switchSENSE®

Antoine Cléry, ETH Zurich, Zurich

13:00 Lunch

FUNCTIONALIZATION AND CONJUGATION

14:00 Functionalization of switchSENSE® Biochips –
Capture, Covalent, RNA/DNA

Thomas Welte, Dynamic Biosensors

14:20 Next Generation Adapter Biochips with
Exchangeable Probes

Wolfgang Kaiser, Dynamic Biosensors

14:40 Preparation and Analysis of Protein-DNA
Conjugates with proFIRE®

Ralf Strasser, Dynamic Biosensors

15:10 Proximity Ligation Assay with proFIREd Antibodies

Matthias Meier, Helmholtz Center Munich, Munich

15:30 Coffee Break

DNA NANOTECHNOLOGY AND SENSING

16:00 Engineering DNA Devices and Machines

Hendrik Dietz, Technical University Munich, Munich

16:30 Nanotools and Materials Assembled from DNA

Tim Liedl, Ludwig Maximilians University Munich, Munich

17:00 Origami Levers for Analyzing Large Molecules
with switchSENSE®

Lukas Traxler, Dynamic Biosensors

17:20 Unlocking the Potential of Nanostructure Tools

Jean-Philippe Sobczak, Tilibit, Munich

18:00 Drinks & BBQ at Dynamic Biosensors

Lochhamer Strasse 15, 82152 Martinsried / Planegg

Friday, June 7th

08:00 Coffee & Registration

BIOPHYSICS IN DRUG DISCOVERY II

08:30 Application of Molecular Interaction Analysis
for Drug Discovery

Helena Danielson, Uppsala University, Uppsala

09:00 switchSENSE® Applications at Roche Diagnostics CPS

Ute Jucknischke, Roche Diagnostics, Penzberg

09:30 Aptamer-Protein and Aptamer-Small Molecule Binding
Analyzed with switchSENSE®

Irene Ponzio, Dynamic Biosensors

09:50 Biophysical Characterization of Bi-Specific and
Tri-Specific Therapeutic Antibodies by
SPR, MST and switchSENSE®

Annika Niedner-Boblenz, Crelux, Munich

10:20 Coffee Break

RESOLVING COMPLEX INTERACTIONS

10:50 Catalytic Activity of DNA/RNA Binding Enzymes
Quantified with switchSENSE®

Nena Matscheko, Dynamic Biosensors

11:10 Harnessing Aptamer Conformational Change
for Electronic Sensing of Neurotransmitters

Nako Nakatsuka, ETH Zurich, Zurich

11:40 Applying switchSENSE® Technology to Virus Detection
– an Approach to Probe Multivalent Binding Interaction

Marlen Kruse, Fraunhofer Institute for Cell Therapy and Immunology, Potsdam

12:00 On the Origin of Avidity in Multivalent Interactions

Ulrich Rant, Dynamic Biosensors

12:20 Concluding Remarks & End of Meeting

14:00 Optional LAB COURSE: Do it yourself!

Hands-on switchSENSE® experiments with DRX and DRX² instruments, assisted by DBS scientists. Samples are provided by Dynamic Biosensors.