

3rd NovAliX Conference

Scientific Programme

Tuesday June 7, 2016

13:00 Registration

14:00 Welcome Address

Session 1: Emerging Technologies

Session Chair

Dr Chun-wa CHUNG
(GLAXOSMITHKLINE, Stevenage, United Kingdom)

14:15 Mass Spectrometry and its Role in Drug Discovery (PL01)

Prof. Carol ROBINSON
(UNIVERSITY OF OXFORD, Oxford, United Kingdom)

15:00 A 5-Year Retrospective on Non-Covalent Mass Spectrometry Applied to Drug Discovery (OC01)

Dr Mathias ANTOINE
(INSTITUT DE RECHERCHES SERVIER, Croissy-sur-Seine, France)

15:25 Maldi Mass Spectrometry: From Imaging to Ultra-High-Throughput-Screening (Maldi-Uhts) (OC02)

Dr Jens FUCHSER
(BRUKER DALTONICS, Bremen, Germany)

15:50 Coffee Break

16:20 Exploring GPCR and Membrane Protein Dynamics with Solution NMR and X-ray Free-Electron Lasers (PL02)

Prof. Gebhard F.X. SCHERTLER
(PAUL SCHERRER INSTITUTE, Villigen, Switzerland)

**17:05 Exhibitor Short Presentation: Creoptix AG
The WAVE of the Future in Kinetics**

Dr Matyas VEGH
(CREOPTIX AG, Wädenswil, Switzerland)

**17:15 Exhibitor Short Presentation: Bruker BioSpin
Fragment Screening by Ligand Observed NMR**

Dr Stefan JEHLE
(BRUKER BIOSPIN, Faellanden, Switzerland)

Keynote Lecture

Chair

Dr Ursula EGNER
(BAYER, Berlin, Germany)

17:25 The Discovery of ABL001, an Allosteric Inhibitor of BCR-ABL (KN01)

Dr Sandra JACOB
(NOVARTIS, Basel, Switzerland)

18:25 Welcome Reception

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Wednesday June 8, 2016

08:30 Registration

Session 2: Biophysics for Challenging Targets

Session Chair

Dr Geoff HOLDGATE
(ASTRAZENECA, Macclesfield, United Kingdom)

09:00 New Strategy for Challenging Targets: Time Resolved Molecular Interaction Analysis on Living Cells Using LigandTracer (PL03)

Dr Karl ANDERSSON
(RIDGEVIEW INSTRUMENTS AB, Vänge, Sweden)

**09:45 Exhibitor Short Presentation: Dynamic Biosensors
Biophysical Analysis of Molecular Interactions and Enzymatic Activity with switchSENSE**

Dr Duncan BORTHWICK
(DYNAMIC BIOSENSORS, Martinsried/Planegg, Germany)

09:55 Combining Binding Thermodynamics and Kinetic Binding Mechanisms to Assess The Selectivity of Inhibitors of Histone Deacetylase-Like Amidohydrolases (OC03)

Mr Christian MEYNER
(UNIVERSITY OF APPLIED SCIENCES DARMSTADT, Darmstadt, Germany)

10:20 Coffee Break

10:50 Thermodynamics of the Ribosome Translation Machinery (OC04)

Dr Eric ENNIFAR
(CNRS, Strasbourg, France)

**11:15 Exhibitor Short Presentation: Molecular Sensing
Affinity Assays for GPCR ligand binding using TruBind™ Molecular Interaction Analysis**

Dr Yvonne VOLZ
(MOLECULAR SENSING, Idstein, Germany)

11:25 Probing the Structure and Dynamics of Proteins with Single-Molecule Spectroscopy (PL04)

Prof. Ben SCHULER
(UNIVERSITY OF ZURICH, Zurich, Switzerland)

12:10 Lunch & Networking

13:00 Poster Session 1

Session 3: Special Focus on Cryo-EM

Session Chair

Dr Ursula EGNER
(BAYER, Berlin, Germany)

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- 14:15 High-Resolution Electron Cryo-Microscopy of Membrane Protein Complexes (PL05)**
Prof. Werner KÜHLBRANDT
(MAX PLANCK INSTITUTE OF BIOPHYSICS, Frankfurt am Main, Germany)
- 15:00 Cullin-Ring Ubiquitin E3 Ligase Regulation by the Cop9 Signalosome (OC05)**
Dr Simone CAVADINI
(FRIEDRICH MIESCHER INSTITUTE FOR BIOMEDICAL RESEARCH, Basel, Switzerland)
- 15:25 Coffee Break**
- 15:55 Visualizing Dynamic Macromolecular Complexes at High Resolution by Cryo-EM (PL06)**
Prof. Holger STARK
(MAX PLANCK INSTITUTE FOR BIOPHYSICAL CHEMISTRY, Göttingen, Germany)
- 16:40 EM in Industry: Expectations and Perspectives (PL07)**
Dr Denis ZEYER
(NOVALIX, Illkirch, France)
- Keynote Lecture**
- Chair**
Dr Herbert NAR
(BOEHRINGER INGELHEIM, Biberach, Germany)
- 17:10 X-ray Crystallography: an Ever-Reemerging Technology (KN02)**
Dr Gerard BRICOGNE
(GLOBAL PHASING LTD., Cambridge, United Kingdom)

Thursday June 9, 2016

Session 4: Computational Biophysics

Session Chair

Prof. Rod HUBBARD
(UNIVERSITY OF YORK & VERNALIS, Cambridge, United Kingdom)

- 09:00 Structural Stability of Protein-Ligand Complexes: Applications in Virtual Screening (PL08)**
Prof. Xavier BARRIL
(BARCELONA UNIVERSITY, Barcelona, Spain)
- 09:45 Exhibitor Short Presentation: BioSolveIT**
A Visual Approximation to On-the-Fly Computational Thermodynamic Profiling
Dr Marcus GASTREICH
(BIOSOLVEIT, St. Augustin, Germany)
- 09:55 Diverse Applications of Free Energy Calculations in Drug Discovery (OC06)**
Dr David RINALDO
(SCHRÖDINGER, Mannheim, Germany)
- 10:20 Coffee Break**
- 10:50 Uncoupling the Structure-Activity Relationships of Beta-2 Adrenergic Receptor Ligands from Membrane Binding (OC07)**
Dr Callum DICKSON
(NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, Cambridge, United States)
- 11:15 Exhibitor Short Presentation: Biodesy**
Real-time, Solution-based Measurement of Protein Conformational Change
Dr Tad GEORGE
(BIODESY, San Francisco, United States)
- 11:25 Computational Exploration of Protein Dynamics for Ligand Design (PL09)**
Prof. Rebecca WADE
(HEIDELBERG INSTITUTE FOR THEORETICAL STUDIES AND HEIDELBERG UNIVERSITY, Heidelberg, Germany)
- 12:10 Lunch & Networking**
- 12:55 Poster Session 2**

Session 5: Cellular Biophysics

Session Chair

Prof. Helena DANIELSON
(UPPSALA UNIVERSITY, Uppsala, Sweden)

- 14:00 The Life and Death of Cells: Cellular Bioenergetics for Better Phenotype Based Drug Discovery (PL10)**
Dr Magnus JANSSON
(SYMCEL SVERIGE AB, Spanga, Sweden)

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- 14:45** **Exhibitor Short Presentation: Sierra Sensors**
Introducing MASS-2 for High Performance, High Throughput SPR Analysis
Dr Sven MALIK
(SIERRA SENSORS, Champs sur Marne, France)
- 14:55** **Exhibitor Short Presentation: NovAliX**
Balancing Standard and Unique Services for Drug Discovery
Dr Frank MOFFATT
(NOVALIX, Illkirch, France)
- 15:05** **Insulin Degrading Enzyme: Drug Target Engagement in Hela Cells by Cellular Thermal Shift Assay (OC08)**
Mr Adrien HERLEDAN (INSTITUT PASTEUR DE LILLE, Lille, France)
- 15:30** **Coffee Break**
- 16:00** **Imaging of G-protein Coupled Receptors while Quantifying their Ligand-binding Free Energy Landscape to Multiple Ligands (PL11)**
Prof. Daniel MÜLLER
(ETH ZÜRICH, Basel, Switzerland)
- 16:45** **Poster Prizes**
- 20:00** **Conference Dinner**

Friday June 10, 2016

Session 6: Biophysics for Biotherapeutics

Session Chair

Dr Johannes OTTL
(NOVARTIS INSTITUTE OF BIOMEDICAL RESEARCH, Basel, Switzerland)

- 09:00 The Neonatal Fc Receptor (FcRn) Binds Independently to Both Sites of the IgG Homodimer with Identical Affinities (PL12)**
Dr Yasmina ABDICHE
(RINAT-PFIZER, San Francisco, United States)
- 09:45 Exhibitor Short Presentation: Malvern Instruments
Innovative Solutions for Biosimilars**
Mr Michel TERRAY
(MALVERN INSTRUMENTS, Orsay Cedex, France)
- 09:55 Analysis of Bispecific Interactions with the Switchsense Biosensor (OC09)**
Dr Ulrich RANT
(DYNAMIC BIOSENSORS GMBH, Martinsried/Planegg, Germany)
- 10:20 Coffee Break**
- 10:50 Kinetic Excursion Analysis (Kinexa) of Avidity Enhancement of a Multi-Valent Adnectin Binding to Clustered Receptors on Cho Cells (OC10)**
Dr Lumelle SCHNEEWEIS
(BRISTOL-MYERS SQUIBB, Princeton, NJ, United States)
- 11:15 Exhibitor Short Presentation: NanoTemper Technologies
Prometheus NT.48 - The Stability Expert**
Dr François-Xavier OGI
(NANOTEMPER TECHNOLOGIES, Karlsruhe, Germany)
- 11:25 Combinatorial SEC, AUC and TEM Approach for the Characterization of mAb Dimers (PL13)**
Dr Arne RUFER
(F. HOFFMANN-LA ROCHE LTD., Basel, Switzerland)
- 12:10 Closing Remarks and Departure**