

4th Workshop of the Helmholtz Association



Cross Program Activity Structural Biology

20.-21. November 2017

Haus der Universität, Shadowplatz 14, 40212 Düsseldorf

Program

Monday, Nov 20

12:00 Arrival and snacks

13:00 **Highlights & Perspectives of Structural Biology @ Helmholtz**
(Chair Michael Sattler)

<i>Time</i>	<i>Speaker</i>	<i>Institute</i>	<i>Topic</i>
13:00	Michael Sattler/ Oliver Daumke	CPA	Overview & perspectives
13:05	Oliver Daumke	MDC	Focus on X-ray crystallography
13:20	Henry Chapman	DESY	Focus on XFEL status & future
13:35	Michael Sattler	HMGU	Focus on NMR and SBDD
13:50	Manfred Weiss	HZB	Focus on facilities for SBDD
14:05	Carsten Sachse	EMBL/FZJ	Focus on Cryo-EM future
14:20	Matthias Wilmanns	EMBL/CSSB	Focus on CSSB facilities
14:30	Harald Schwalbe	Uni Frankfurt	Focus on INSTRUMENT
14:40	Round Table Discussion with Matthias Kölbl (BMBF), Christian Renner (DFG) and speakers of the session		Helmholtz and national perspectives for Integrative Structural Biology

15:15 Coffee break

15:45 Session 1 **Structure-based drug discovery** (Chair Gunnar Schröder)

<i>Time</i>	<i>Speaker</i>	<i>Institute</i>	<i>Topic</i>
15:45	Erec Stebbins	DKFZ	Using Structural Biology to Elucidate the Mechanisms of Trypanosome Immune Evasion
16:05	Grzegorz Popowicz	HMGU	Trypanosomatids Parasites Achilles' Heel – Targeting Glycosome Biogenesis
16:20	Matthias Barone	FMP	Ena/VASP as possible antimetastatic target addressed by structure-optimized ProM scaffolds
16:35	Peer Lukat	HZI	Structure of the Cytotoxic Necrotizing Factor (CNFy) from <i>Yersinia pseudotuberculosis</i>
16:50	Birgit Strodel	FZJ	Ethnobotanical approach to drug discovery for Africa

17:10 **Poster session**

18:00 CPA meeting group leaders

19:30 **Conference Dinner** at Brauhaus Schlüssel (Bolkerstr. 41-47, Altstadt)

Tuesday, Nov 21

9:00 Session 2 Integrative structural biology (Chair Ingrid Span)

<i>Time</i>	<i>Speaker</i>	<i>Institute</i>	<i>Topic</i>
9:00	Dierk Niessing	HMGU	The PURA Syndrome - a new developmental disorder
9:20	Markus Wahl	HZB	Structural basis of processive transcription antitermination
9:40	Alexander Schug	FZJ	Using Biomolecular Simulations to Complement Experimental Data for Structure Determination
9:55	Yunior Cabrales Fontera	DZNE	Multivalent cross-linking of actin filaments and microtubules through the microtubule-associated protein Tau
10:10	Carla Schenk	FZJ	Structure Determination of Amyloid- β Fibrils by Cryo-EM

10:25 Coffee break

10:55 Session 3 Novel methods & structures (Chair Manuel Etzkorn)

<i>Time</i>	<i>Speaker</i>	<i>Institute</i>	<i>Topic</i>
10:55	Henrike Heise	FZJ	Conformational ensembles of (unfolded) proteins and amyloid fibrils studied by high-sensitivity Solid-State NMR-Spectroscopy
11:15	Arthur Melo	MDC	Structural insights into the activation mechanism of dynamin-like EHD proteins
11:30	Bernd Reif	HMGU	Soluble protein complexes investigated by MAS solid-state NMR
11:50	Wolfgang Hoyer	HHU	A flexible amyloid- β dimer reveals kinetic relation between protofibrillar oligomers and amyloid fibrils
12:05	Alexander Marchanka	HZI	Solid-state NMR approach for structural studies of RNA
12:20	Anja Burkhardt	DESY	P11 at PETRA III: A Versatile Beamline for High-Throughput Crystallography
12:40	Joop van den Heuvel	HZI	Improving Transient Gene Expression in Insect cells

13:00 Lunch bags and departure