

HEC24 – Programme

Standard lectures 12 min + 3 min discussion

Flash talks – 5 min

Commercial lectures – 10 min

Thursday, September 22 afternoon	Thursday, September 22 evening
15:00 Ivana Kuta Smatanova: Welcome and opening remarks	17:30-19:10 Session II INFECTIONS AND DISEASES Chairs: Manfred Weiss, Norbert Straeter
15:15 Presentation of new HEC group by Przemek Grudnik	17:30 Johannes Schweininger (Yves Muller group) Towards understanding and inhibiting the hook-into-groove interaction of the herpesviral nuclear egress complex
15:30-17:05 Session I MX / Cryo-EM STRUCTURES, BACTERIAL ENZYMES AND REGULATORS Chairs: Wulf Blankenfeldt , Milton T. Stubbs	17:45 Petra Havlíčková (Ivana Kuta Smatanova group) Crystal structure of Smolstatin – protease inhibitor from the myxozoan parasite Sphaerospora molnari
15:30 Anna Cociurovscaia (Grzegorz Bujacz group) Crystal structures of copper sensing bacterial histidine kinase	18:00 Chuan Qin (Michael Lammers group) Structural and biochemical characterization of the histone deacetylase-like amidohydrolase from Klebsiella pneumoniae
15:45 Michael Krummhaar (Christian Roth group) Structural and functional investigations into Glycocin-Glycosyltransferases	18:15 Lena M. Grass (Markus Wahl group) Architecture and functional dynamics of a large, virulence-associated DNA helicase from enterohaemorrhagic Escherichia coli
16:00 Daniela Gjorgjevikj (Markus Wahl group) Inhibition of a bacterial global gene regulator by a phage protein via forced hyper-oligomerization	18:30 Marta Gapińska (Marcin Nowotny group) Mechanism of protein-primed template-independent DNA synthesis by Abi polymerases
16:15 Rezan Amjadi (Klaus Scheffzek group) High-resolution structure of human nucleoside diphosphate kinase C in complex with different nucleotides	18:45 Magdalena Gawel (Krzysztof Brzezinski/Mariusz Jaskolski group) Identification of selective inhibitors of S-adenosyl-L-homocysteine hydrolase from Pseudomonas aeruginosa via high-throughput screening and crystallographic approaches
16:30 Elzbieta Wątor (Przemek Grudnik group) Half way to hypusine. Molecular basis of (deoxy)hypusination.	18:50 Laila S. Benz (Manfred Weiss group) New chemical entities for modulating SARS-CoV-2 activity
16:45 Carl Helmer (Markus Wahl group) High-resolution structure analysis of a small plant biocatalyst at sub 2 Å resolution by Cryo-EM	18:55 Zhennan Tian (Markus Wahl group) Structural basis of co-transcriptional rRNA folding and processing
17:00 Ruben Ananian (Christian Roth group) First insights into the structure and function of the human glycogen debranching enzyme	19:00 Vernon Smith (Bruker) Getting it right from the start – Collecting better data with the D8 VENTURE
17:05 Coffee, tea, refreshment	19:30 Welcome dinner
	21:00 Bar

Friday, September 23 morning	Friday, September 23 afternoon
9:00- 12:25 Session III DRUG DESIGN Chairs: Jan Dohnálek, Mariusz Jaskolski	14:30 Boat trip at Lipno lake 16:00 Coffee, tea, refreshment
9:00 Martin Malý (Jan Dohnálek group) Integrative structural study of antibiotic-inactivating enzyme from <i>Stenotrophomonas maltophilia</i> 9:15 Anna Katharina Kottwitz (Miriam Linnert group) Development of monoclonal antibodies against 3-Nitrotyrosine-Abeta suspected of being associated with Alzheimer's disease 9:30 Stefan Djukic (Pavčina Řezáčová group) Structural studies of human purine nucleoside phosphorylase inhibitors 9:45 Zdeněk Vavřina (Pavčina Řezáčová group) Structure- and Activity-Guided Drug Design of 7-Deazapurine Cyclic Dinucleotide Analogues Activating Stimulator of Interferon Genes (STING) Receptor 10:00 Maria Kehr (Clemens Steegborn group) Structural studies on second generation soluble adenyl cyclase inhibitors and characterization of a putative ATPase domain 10:15 Coffee, tea, refreshment	16:30-18:10 Session IV FRAGMENT SCREENING, PROTEIN DESIGN Chairs: Cyril Bařinka, Matthias Bochtler 16:30 Keerthiraju E Ravichandran (Sebastian Glatt group) E2/E3-independent ubiquitin-like protein conjugation by Urm1 protects the proteome under oxidative stress 16:45 Shivam Shukla (Cyril Bařinka group) In-solution structure and oligomerization of human histone deacetylase 6 - an integrative approach 17:00 Kinga Pokrywka (Mariusz Jaskolski group) Structural Studies Of Rhizobium Etli Inducible Asparaginase Mutants 17:15 Paula Fröling (Manfred Weiss group) Structural analysis of metabolic binding partners of SuhB 17:30 Tim B. Garbers (Ralf Ficner group) Crystallographic fragment screen on the c-di-AMP synthesizing enzyme CdaA Dominic 17:45 Mark Kriegel (Yves Muller group) The implementation of explicit water molecules in side chain packing algorithms for protein design
10:15 Coffee, tea, refreshment	
10:45 Andrea Smith (Pavčina Řezáčová group) New protein reactive centres against aspartic proteases 10:50 Tingting Wang (Markus Wahl group) Structural basis of promoter melting in <i>Spirochaeta africana</i>	18:00 Florian Grau (Cytiva) ÅKTA go™—Redefining Routine Protein Purification 18:15 Dinner
10:55 Felix Hennersdorf (Rigaku) Rigaku Advances in X-ray and Electron Crystallography 11:05 Rastislav Ořtádal (ThermoFisher Scientific) Tundra, an affordable microscopy for sample screening to high resolution structures	
11:25 HEC24 lecture Prof. Dr. Kay Diederichs (University of Konstanz, Germany) A better understanding of X-ray data quality indicators	
12:30 Lunch	

Friday, September 23 evening	Saturday, September 24 morning
19:45-21:00 Session V NUCLEASES AND RECEPTORS Chairs: Christian Roth, Markus Wahl	9:30-11:00 Session VI STRUCTURE DETERMINATION and MOLECULAR MECHANISM - <i>Postdoc Talks</i> Chairs: Michael Lammers, Miriam Linnert
19:45 Linh H. Tran (Milosz Ruzskowski/Mariusz Jaskolski group) 3D Domain Swapping Dimerization of the Receiver Domain of Cytokinin Receptor CRE1 From Arabidopsis thaliana and Medicago truncatula 20:00 Fabian Pohl (Norbert Straeter group) ADGRB2 and its Resistance to Autoproteolysis 20:15 Kristýna Adámková (Jan Dohnálek group) Structural analysis of S1-like nuclease from opportunistic biofilm dwelling pathogen Stenotrophomonas maltophilia 20:30 Philipp Galuska (Kristina Djinovic-Carugo group) Liquid-liquid phase separation and its role in Z-Disc formation	9:30 Sergio Romero-Romero (Birte Hoecker group) Navigating the structural and stability landscape of de novo TIM barrels by protein design and engineering 9:45 Abibe Useini (Norbert Straeter group) Interference of environmental compounds with PPAR γ 10:00 Alaa Shaikhqasem (Milton T. Stubbs group) Structure determination of a protein-peptide complex using microcrystal electron diffraction
20:45 Katarzyna Krakowska (Matthias Bochtler group) Structural analysis of the BslI family modification dependent restriction endonucleases 20:50 Blanka Husťáková (Jan Dohnálek group) Crystallographic study reveals an unexpected substrate for S1-P1 nuclease 20:55 Jakub Hrubý (Jan Dohnálek group) Effects of the Zn(II) to Cd(II) Exchange on the Structure and Activity of S1 Nuclease	10:15 Coffee, tea 10:40 Anton Slyvka (Matthias Bochtler group) Activity and structure of human (d)CTP specific deaminase CDADC1 10:55 Gert Weber (Manfred Weiss group) Structures of a DYW domain shed first light on a unique plant RNA editing regulation principle
21:10 HEC committee meeting	11:00 Radomír Kužel Hybrid congress IUCr-25 in Prague 2021 - statistics of attendance of bio-crystallographic lectures and sessions 11:10 Michael Lammers Announcement of HEC25 11:20 HEC prizes and closing remarks
21:10 Bar	11:30 Lunch