

ICCBM-16 Detailed Programme

Sunday 3 rd July		
08:30		
08:50	Opening	
09:10		
09:30	9:00 Osamu Nureki: High-resolution X-ray Crystallography of Membrane Proteins and Molecular Mechanisms of Membrane Transporters	KN1
09:50		
10:10	9:50 Eric Xu: An X-Ray Laser Structure of Rhodopsin-Arrestin Complex	S1-L1
10:30	10:20 Byron Carpenter: Engineering Heterotrimeric G Proteins to Facilitate Crystallisation of GPCRs in their Active Conformation	S1-L2
10:50	10:50 Martin Caffrey: New and Improved Features of the Lipid Cubic Phase (In Meso) Method for Crystallizing Membrane and Soluble Proteins and Complexes	S1-L3
11:10	11:10 Edward Pryor: The importance of detergent selection: Are you choosing the right detergent for your membrane protein?	S1-L4
11:30		
11:50	<i>Coffee</i>	
12:10		
12:30	12:00 Naomi Chayen: Enhancing the Success of Crystallizing Biological Macromolecules	KN2
12:50		
13:10	<i>Lunch</i>	
13:30		
13:50		
14:10	14:00 Anthony Kossiakoff: Generation of antibody-Fab reagents to capture and stabilize functionally important conformational states of proteins to facilitate their structure determination by crystallography and single particle Cryo-EM	S2-L1
14:30	14:30 Nicolas Thoma: Macromolecular machines in genome maintenance	S2-L2
14:50	15:00 Song Tan: Crystallization of chromatin complexes	S2-L3
15:10	15:30 Seth Rubin: X-ray Crystallography Studies of Protein Complexes Controlling Cell Cycle Gene Expression	S2-L4
15:30		
15:50	<i>Coffee</i>	
16:10		
16:30	16:20 Fei Xu: New advances in struct. discovery of human G protein-coupled receptors: the 826 project and importance of ligand stabilization	S3-L1
16:50	16:50 Khyatti Kapoor: Mechanism of inhibition of hGLUT1 is conserved between cytochalasin B and phenylalanine amides	S3-L2
17:10	17:10 Chung Jung Chen: Purification and Crystallization of an Antigenic Outer-Membrane Protein from <i>Salmonella Typhi</i>	S3-L3
17:30	17:30 Patrick Shaw Stewart: Microseed matrix-screening (rMMS): introduction, theory, practice and a new technique for membrane protein crystallization in LCP	S3-L4
17:50		
18:10		
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18:50	18:00 Poster Session I	
19:10		

Monday 4 th July		
08:30		
08:50	8:30 José A. Marquez: Automated crystal mounting and processing through laser photoablation. New opportunities for integrated macromolecular crystallography pipelines	S4-L1
09:10	9:00 Moritz Hunkeler: Advanced Imaging in Lab-Scale Protein Crystallization	S4-L2
09:30	9:30 Carrien Dekker: TeXRank: Texture Image Analysis and Machine Learning for Crystallizing Difficult Proteins	S4-L3
09:50	10:00 Charline Gerard: Microfluidic platform for optimisation of crystallisation conditions	S4-L4
10:10	10:20 Jochen Müller Dieckmann: Advancements in Automated Imaging	S4-L5
10:30		
10:50	<i>Coffee</i>	
11:10	11:10 Dominik Oberthür: Changing concepts: Crystallization for serial and time-resolved crystallography	S5-L1
11:30	11:40 Robert Dods: Micro-crystallisation of Photosynthetic Reaction Center for Time-Resolved Serial Femtosecond Crystallography at an X-ray Free Electron Laser	S5-L2
11:50	12:10 Jason Stagno: Advantages of Serial Femtosecond Crystallography for RNA Structure Determination	S5-L3
12:10	12:30 Sarah Perry: Graphene-Based Microfluidics for Serial Crystallography	S5-L4
12:30		
12:50	<i>Lunch</i>	
13:10		
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14:10	14:00 Alke Meents: A low background sample holder for fixed target serial crystallography experiments	S6-L1
14:30	14:30 Uwe Weierstall: Microcrystal sample delivery for serial crystallography in a high viscosity medium	S6-L2
14:50	15:00 Christian Betzel: Distinguishing Protein Nanocrystals from Amorphous Precipitate by Depolarized Dynamic Light Scattering	S6-L3
15:10		
15:30	15:30 Allen Orville: Acoustic droplet ejection: from crystallization through time-resolved SFX	S6-L4
15:50	16:00 Vernon Smith: The changing role of in-house crystallography	S6-L5
16:10		
16:30	<i>Coffee</i>	
16:50		
17:10		
17:30		
18:30	18:45 Ada Yonath: The Recent Resolution Revolution & Friendly Medicine	KN
18:50		
20:30	20:30 Concert: Ars Instrumentalis Pragensis	

Tuesday 5 th July		
08:30		
08:50	8:30 Terese Bergfors : Strategies and stories for the small-scale crystallization laboratory	S7-L1
09:10	9:00 Emmanuel Saridakis : Thermodynamic stabilization, entropy, and crystallization of proteins	S7-L2
09:30	9:30 Lisza M. Bruder : Glycerol alters substrate binding in PTPLP:IP complexes	S7-L3
09:50	9:50 Jindřich Hašek : Controlling the crystal growth. Why is poly(ethyleneglycol) the most effective precipitant for protein crystallization?	S7-L4
10:10	10:10 Alexander McPherson : Experiments on the Diffusion of Dyes and Ions into Protein Crystals	S7-L5
10:30		
10:50	<i>Coffee</i>	
11:10	11:00 Eric Ennifar : ITC-assisted crystallization of protein-ligand complexes	S8-L1
11:30	11:30 Hartmut Luecke : Membrane Protein Crystallization Using Cubic Lipid Phases, Bicelles and Vapor Diffusion	S8-L2
11:50	12:00 Abel Moreno : Myths and realities about the influence of electric and mag. fields on protein crystallization and protein crystal growth	S8-L3
12:10	12:20 Marko Ristic : Computational tools to aid crystallization	S8-L4
12:30	12:40 Thomas Jocks : How light scattering techniques can contribute to purification, characterization and crystallization of proteins	S8-L5
12:50		
13:10	<i>Lunch</i>	
13:30		
13:50		
14:10	14:00 Janet Newman : What's in a drop? Moving from images to outcomes	S9-L1
14:30	14:30 Julie Wilson : Automated scoring of crystallization experiments using multiple images	S9-L2
14:50	15:00 Samyam Acharya : A genetic algorithm for the optimization of protein crystallization screening	S9-L3
15:10	15:20 Angela Criswell : An add-on device for automated in situ diffraction screening	S9-L4
15:30		
15:50	<i>Coffee</i>	
16:10	16:10 Claude Sauter : Biological crystallization: from the classroom to the bench	S10-L1
16:30	16:40 Martin Caffrey : A Laboratory Course on Crystallizing Membrane and Soluble Proteins and Complexes by the Lipid Cubic Phase (In Meso) Method	S10-L2
16:50		
17:10	17:10 Stephane Veesler : Teaching (macromolecular) crystallization with movies	S10-L3
17:30	17:30 Monika Spano : Optimization of Crystallization using Dialysis Combined with Temperature Control	S10-L4
17:50	17:50 Juan Manuel García-Ruiz : Teaching protein crystallization at the Laboratory for Crystallographic Studies (Granada, Spain)	S10-L5
18:10		
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19:10	Poster Session II	
19:30		
19:50	IOCB meeting	

Wednesday 6 th July		
08:30		
08:50	8:30 Juan Manuel García-Ruiz : The Impact of Crystals in Art and Mind	KN-3
09:10		
09:30	9:20 Shigeru Sugiyama : Development of protein seed crystals reinforced with high-strength hydrogels	S11-L1
09:50		
10:10	9:50 Matthew P. Blakeley : Neutron cryo-crystallography: methods, applications and challenges	S11-L2
10:30	10:20 Flora Meilleur : Crystallization of a fungal polysaccharide monooxygenase for neutron crystallography	S11-L3
10:50	10:50 Niels Junius : Crystallization with an automated apparatus for temperature-controlled flow-cell dialysis with real-time visualization	S11-L4
11:10		
11:30	<i>Coffee</i>	
11:50	11:40 Richard Giege : What Biocrystallogenesis Tells Us – What is Needed in the Future	KN-4
12:10		
12:30	<i>Lunch</i>	
	Afternoon and evening: Train trip to Pilsen Brewery	

Thursday 7 th July		
08:30	8:30 Peter Vekilov : Are the protein pre-nucleation clusters equilibrium structures or irreversible aggregates?	S12-L1
08:50	8:50 David Hargreaves : Antibodies as Chaperones in Crystallization: Parameters for Success	S12-L2
09:10	9:10 Jose Antonio Gavira : Protein crystallization in hydrogels, current status and future prospect	S12-L3
09:30	9:30 Paul Thaw : Flying through optimization screening with dragonfly	S12-L4
09:50	9:50 Ľubica Urbániková : Flying through optimization screening with dragonfly	S12-L5
10:10	10:10 Guillermo Calero : Transmission electron microscopy for the evaluation and optimization of crystal growth	S12-L1
10:30		
10:50	<i>Coffee</i>	
11:10	11:00 Allan D'Arcy : A rational approach to crystallizing proteins in the pharmaceutical industry, the impact of micro seed matrix seeding	S13-L1
11:30	11:30 Linda Oster Lundgren : Successful generation of structural information for fragment-based drug discovery	S13-L2
11:50	11:50 Thomas Peignier : XRayLab: an X-ray diffraction facility for the International Space Station dedicated to the study of space-grown crystals	S13-L3
12:10	12:10 Hai Hou : A comparative study on the diffraction quality of protein crystals obtained using the cross-diffusion microbatch and sitting-drop vapor diffusion methods	S13-L4
12:30		
12:50	<i>Lunch</i>	
13:10		
13:30	13:30 Magdalena Kowacz : Ionic liquids (ILs)-water interplay in protein crystallization. From IL additives to nucleants to...	S13-L1
13:50	14:00 Marc Pusey : Ionic liquids as protein crystallization additives	S13-L2
14:10		
14:30	14:30 Dominique Maes : How camels can aid crystallization? The challenges of the de novo designed protein Octarellin	S13-L3
14:50	14:50 Patrick Charbonneau : Water in Protein Crystals	S13-L4
15:10	15:10 Edward Petri : Use of X-ray crystallographic data for computational modeling of receptor-ligand interactions: design of steroidal inhibitors..	S13-L5
15:30		
15:50	15:30 Poster Prizes, Closing	
16:10		
16:30	<i>Coffee</i>	16:40