FEBS PLC10 015 programme

	FEBS Lectures 9:15-13:00	**FEBS Lab Exercises 14:30-18:30**	**Evening events 20:00**
Friday June 25	16:00-22:00 Registration 20:00 Refreshments		
Saturday June 26	**9:15-9:45** Welcome. Introduction to PX [Ivana Kuta Smatanova] **9:45-10:30** Introduction to the nucleation and growth of protein crystals [Peter Vekilov] **10:45-11:45** Conventional crystallization methods and their modifications [Jeroen Mesters] **11:45-12:30** Crystallization of membrane proteins in lipidic mesophases [Martin Caffrey]	Conventional techniques and their modifications, crystallization of own proteins [J. Mesters] Possible exercise: Conventional techniques and crystallization of own proteins using commercial screening kits [Ľ. Urbániková] Crystallization of membrane proteins in lipidic mesophases [M. Caffrey]	Welcome party – representative quarters of the castle
Sunday June 27	**9:15-10:15** Knowledge-based crystallogenesis methods to grow better crystals for structural biology [Richard Giegé by Claude Sauter] **10:15-11:15** Crystallization and crystallographic analysis in a microfluidic chip [Claude Sauter] **11:30-12:00** Interpretation of the crystallization drop results [Terese Bergfors] **12:00-12:45** Recent developments in automatic protein crystallization [Patrick Shaw Stewart, Douglas Instruments Ltd]	Observation of crystal growth / Seeding [T. Bergfors] Crystallization and crystallographic analysis in a microfluidic chip [C. Sauter] Crystallization under oil [L. Govada] Microseeding with automatic systems [Patrick Shaw Stewart, Douglas Instruments Ltd]	Discussion with "speakers of the day" + posters
Monday June 28	**9:15-10:00** Counter diffusion methods for protein crystallization and screening: gels, capillary volumes and microgravity [José A. Gavira] **10:00-10:45** "What to do if everything has failed" Terese Bergfors] **11:00-11:45** On the use of additives in protein crystallization [Rolf Hilgenfeld] **11:45-12:30** Unconventional crystallization techniques for screening and optimisation [Naomi Chayen]	Observation of crystal growth / Seeding [T. Bergfors] Crystallization and crystallographic analysis in a microfluidic chip [C. Sauter] Crystallization under oil [L. Govada] Microseeding with automatic systems [Patrick Shaw Stewart, Douglas Instruments Ltd]	Distinguishing protein crystals from salt [Patrick Shaw Stewart] Discussion with "speakers of the day" + posters

	FEBS Lectures 9:15-13:00	FEBS Lab Exercises 14:30-18:30	Evening events 20:00
Tuesday June 29	**9:15-10:00** DLS measurements prior to crystallization experiments [Christian Betzel] **10:00-10:45** *E.coli* - a factory for recombinant proteins [Lubomír Janda] **11:00-11:45** The road from protein expression and purification to protein crystallization [Estela Pineda Molina] **11:45-12:30** Protein as the main variable in crystallization [Ľubica Urbániková]	**14:00-21:00** Visit of town Cesky Krumlov called the „small Prague" – (15:00-16:00). Visit of the state castle and chateau of Cesky Krumlov, which was included to the list of UNESCO World Cultural Heritage Monuments in 1992 - (16:00-17:30) Traditional south-czech dinner in the Egenberg brewery (18:00 – 20:00).	**21:00** Discussion with "speakers of the day"
Wednesday June 30	**9:15-10:00** Preparation of protein samples for crystallization experiments [Pavlína Řezáčová] **10:00-10:45** Rational biochemical approaches to improve crystallogenesis [Jannette Carey] **11:00-11:45** Tips and tricks for protein crystal manipulation and handling [José A. Gavira] **11:45-12:30** Publication of scientific results with emphasis on crystallization communications [Howard Einspahr]	Dynamic light scattering [K. Dierks] Protein crystallization using the GCB [J. Gavira] Conventional techniques and crystallization of own proteins [Ľ. Urbániková] Publication of scientific results with emphasis on crystallization communications [H. Einspahr] Special exercise for students with own protein: Limited proteolysis [J. Carey]	Round table discussion + student presentations
Thursday July 1	**9:15-10:00** Nucleation of protein crystals: novel insights [Peter Vekilov] **10:00-10:45** The growth of large crystals for neutron diffraction: Thermal control [Monika Budayova-Spano] **11:00-11:45** Illuminating the Screening Process with Fluorescence [Marc Pusey] **11:45-12:30** Screening the diffraction quality of protein crystals [Marianna Biadene, Bruker AXS]	Dynamic light scattering [K. Dierks] Protein crystallization using the GCB [J. Gavira] Conventional techniques and crystallization of own proteins [Ľ. Urbániková] Publication of scientific results with emphasis on crystallization communications [H. Einspahr] Special exercise for students with own protein: Limited proteolysis [J. Carey]	**19:00** Excursion and farewell dinner
Friday July 2	**9:30-12:30** Crystal observation, testing, handling, mounting etc. [J. Brynda]		

FEBS PLC10 015 Lab Exercises

Date	Name of lab exercise	Time			
		14:30-15:30	15:30-16:30	16:30-17:30	17:30-18:30
Saturday June 26	Conventional techniques and their modifications, crystallization of own proteins [J.Mesters]	Group 1	Group 1	*Group 2*	*Group 2*
	Conventional techniques and crystallization of own proteins using commercial screening kits [Ľ. Urbániková]	Group 3	Group 3	Group 4	Group 4
	Crystallization of membrane proteins in lipidic mesophases [M. Caffrey]	Group 2 + 4	Group 2 + 4	Group 1 + 3	Group 1 + 3
Sunday June 27	Observation of crystal growth / Seeding [T. Bergfors]	Group 1	Group 1	*Group 2*	*Group 2*
	Crystallization and crystallographic analysis in a microfluidic chip [C. Sauter]	*Group 2*	*Group 2*	Group 1	Group 1
	Crystallization under oil [L. Govada]	Group 3	Group 3	Group 4	Group 4
	Microseeding with automatic systems [P. Shaw Stewart]	Group 4	Group 4	Group 3	Group 3
Monday June 28	Observation of crystal growth / Seeding [T. Bergfors]	Group 3	Group 3	Group 4	Group 4
	Crystallization and crystallographic analysis in a microfluidic chip [C. Sauter]	Group 4	Group 4	Group 3	Group 3
	Crystallization under oil [L. Govada]	Group 1	Group 1	*Group 2*	*Group 2*
	Microseeding with automatic systems [P. Shaw Stewart]	*Group 2*	*Group 2*	Group 1	Group 1
Tuesday June 29	Dynamic light scattering [K. Dierks]	Group 1	Group 1	*Group 2*	*Group 2*
	Protein crystallization using the GCB [J. Gavira]	*Group 2*	*Group 2*	Group 1	Group 1
	Conventional techniques and crystallization of own proteins [Ľ. Urbániková]	Group 3	Group 3	Group 4	Group 4
	Publication of scientific results with emphasis on crystallization communications [H. Einspahr]	Group 4	Group 4	Group 3	Group 3
	Limited proteolysis [J. Carey]	Special exercises fro students with own protein			
Wednesday June 30	Dynamic light scattering [K. Dierks]	Group 3	Group 3	Group 4	Group 4
	Protein crystallization using the GCB [J. Gavira]	Group 4	Group 4	Group 3	Group 3
	Conventional techniques and crystallization of own proteins [Ľ. Urbániková]	Group 1	Group 1	*Group 2*	*Group 2*
	Publication of scientific results with emphasis on crystallization communications [H. Einspahr]	*Group 2*	*Group 2*	Group 1	Group 1
	Limited proteolysis [J. Carey]	Special exercises fro students with own protein			
Thursday July 1	Crystal observation, testing, handling, mounting etc. [J. Brynda]	9:30-12:30 Groups 1-4			