PROGRAMME

Thursday, March 22

10:30 12:30 Registration at Nový Zámek
12:30 13:30 Accommodation
13:59 14:00 Opening of XV Discussions

14:00 16:00 **Session I**
chairperson: *Jan Dohnálek*

L1 3
Miroslav Kloz (ELI Beamlines)
Spectral watermarking approach to stimulated Raman spectroscopy: background-free femtosecond vibration spectra

L2 5
Irena Kratochvílová (Institute of Biotechnology)
Critical defects in cryopreserved cell nuclei: DNA structure changes

L3 5
Bohdan Schneider (Institute of Biotechnology)
A DNA structural alphabet distinguishes the structural features of DNA bound to transcription factors and histone proteins

L4 6
Edward A. Curtis (Institute of Organic Chemistry and Biochemistry)
Mechanisms of G-quadruplex biochemical specificity

L5 6
Giovanna Fragneto (Institut Laue-Langevin, Grenoble)
The structure of model and natural lipid bilayers: Moving towards complexity

16:00 16:20 *Coffee break*

16:00 18:00 **Session II** chairperson: *Edward Curtis*

L6 7
Eva Hájková (Palacký University)
Study on active site of nucleoside N-ribohydrolases from Zea mays

L7 8
Emanuel K. Peter (Institute of Biotechnology)
A method for accelerated free energy calculations of proteins in an extended experimental ensemble derived from the Protein Data Bank

L8 8
David Jakubec (Inst. of Org. Chemistry and Biochemistry)
3DPatch: fast sequence and structure residue-level information content annotation in a web browser

L9 9
Klára Hlouchová (Charles University)
Search into unevolved protein space

L10 9
Jozef Hritz (Masaryk University)
Protein homodimerization from perspective of structural biology and biophysics (*30 min*)

18:00 21:30 Dinner
Folows Meeting of the CIISB Exec. Com.

Friday, March 23

7:30 8:45 Breakfast

9:00 10:40 **Session III**
chairperson: *Klára Hlouchová*

L11 10
Konstantinos Tripsianes (Masaryk University)
Transforming biomolecular NMR to stay at the forefront of Structural Biology (*30 min*)

L12 10
Pavel Srb (Inst. of Org. Chemistry and Biochemistry)
Capturing dynamically interacting inhibitor by paramagnetic NMR spectroscopy

L13 11
Martin Klíma (Inst. of Org. Chemistry and Biochemistry)
Structural basis for hijacking of the host ACBD3 protein by picornaviruses

L14 11
Václav Veverka (Institute of Organic Chemistry and Biochemistry)
Targeting the LEDGF/p75 associated pathologies (*30 min*)

10:40 11:00 *Coffee break*

11:00 12:20 **Session IV** chairperson: *Bohdan Schneider*

L15 12
Daniel Němeček (Thermo Fisher Scientific)
Pipeline for protein structure determination by cryoEM *(30 min.)*

L16 56
(*PALL ForteBio*)
BLI technology as a tool for biomolecular interactions

L17 12
Piotr Wardega (NanoTemper)
NanoTemper Technologies – When protein quality matters. New arising star- Tycho NT.6 (*30 min.*)

12:20 13:15 Lunch

13:30 15:45 **Session V** chairperson: *Vladimír Sklenář*
2nd Users Meeting of CIISB

L18 13
Domink Hrebík (Masaryk University)
Near-atomic structure of podovirus P68 provides insights into phage assembly and cell membrane penetration mechanism of bacteriophages infecting gram-positive bacteria

L19 13
Liya Mukhamedova (Masaryk University)
Cryo-EM structure of Kashmir bee virus

L20 14
Kateřina Melková (Masaryk University)
Microtubule Associated Protein 2c and Tau: insight into molecular basis of functional diversity of homologous regulatory intrinsically disordered proteins

L20 14
Karel Škubník (Masaryk University)
Virion structures and genome release mechanism of honeybee viruses from the family *Iflaviridae*
L21 15
Michaela Procházková (Masaryk University)
Structure of sacbrood honeybee virus reveals evolution of capsid protein features important for *Iflavirus* cell entry
L22 16
Martin Polák (Masaryk University)
Molecular architecture and life cycle of filamentous viruses

15:45 16:15 *Coffee break*

16:00 18:00 **Session VI** chairperson: *Pavel Plevka*
2nd Users Meeting of CIISB
L23 16
Tibor Füzik (Masaryk University)
Structure of tick-borne encephalitis virus and its neutralization by a monoclonal antibody *(30 min.)*
L24 17
Josef Houser (*Masaryk University*)
Looking for inhibitor: structural and functional analysis of novel bangle lectin PHL from *Photorhabdus asymbioticas*
L25 18
Tereza Skálová (Institute of Biotechnology)
Crystal structure of globin domain of AfGcHK histidine kinase
L26 18
Leona Švecová (Institute of Biotechnology)
Crystal structure of novel aryl-alcohol oxidase from thermophilic fungus
L27 19
Kseniya Ustinova (Institute of Biotechnology)
Identification and characterization of microtubule-binding domain of HDAC6

Libor Grubhofer
Greetings by the president of the Czech Society for Biochemistry and Molecular Biology

18:30 19:30 Dinner

19:30 20:45
General Assembly of the Czech Society for Structural Biology. Meeting will be held in the Czech and/or Slovak languages.

20:30 22:30 **Poster Session**

Saturday, March 24

7:30 9:15 Breakfast

9:30 10:20 **Session VII**
chairperson: *Veronika Obšilová*
L28 20
Rüdifer Ettrich (Institute of Microbiology)
Computational Modeling of 3'-Phosphoadenosine 5'-Phosphosulfate Synthase PAPSS *(30 min.)*
L29 21
Jan Mičan (Masaryk University)
Computational Enzyme Design of Haloalkane Dehalogenases for Yperite Degradation

10:20 10:40 *Coffee break*

10:40 11:50 **SessionVII**
chairperson: *Rüdiger Ettrich*
L30 22
Veronika Obšilová (Institute of Physiology)
Molecular basis of the 14-3-3 protein-dependent activation of yeast neutral trehalase Nth1 (*30 min*)
L31 22
Katarína Pšenáková (Charles University)
Structural characterization of protein kinase ASK1 and its interaction with thioredoxin
L32 23
Evžen Bouřa (Institute of Organic Chemistry and Biochemistry)
Structural analysis of phosphatidylinositol 4-kinase IIIß (PI4KB) protein complexes with 14-3-3, ACBD3 and viral proteins

11:50-12:15 Student prizes & concluding remarks

12:30 13:30 Lunch

POSTERS

Harrachov, hotel Svornost

18.-21.6. 2018

www.xray.cz/kolokvium

Výpočetní metody, strukturní databáze, kursy, výuka.
Novinky v přístrojovém vybavení.

Příspěvky z oblasti krystalografie a strukturní analýzy.

Krystalografická společnost