

Candidates for the CSSB Council elections

20 March 2020, Nové Hradý

(Alphabetical order)

Ing. Jiří Černý, Ph.D., Institute of Biotechnology, AS CR, Vestec

https://www.researchgate.net/profile/Jii_Cerny

Head of Laboratory of Structural Bioinformatics of Proteins at the Institute of Biotechnology of the Czech Academy of Sciences, head of ELIXIR CZ node at the IBT, founding member of the European Structural Bioinformatics ELIXIR Community (3DBioInfo). My research concentrates on understanding the structural and functional features of proteins, nucleic acids, and other biologically relevant molecules and their interactions employing the tools of Structural Bioinformatics and Molecular Modeling. The field of structural biology entirely depends on the correct annotation, thorough validation, proper data standards, and uniform access to the structural data.

Therefore, within the Society, I would like to encourage further community-driven efforts to enhance the interoperability of techniques, tools, and produced or used data.

Ing. Jan Dohnálek, Ph.D., Institute of Biotechnology, AS CR, Vestec

<http://www.ibt.cas.cz/vyzkum/laboratore/laborator-struktury-a-funkce-biomolekul/>

My expertise lies in application of x-ray crystallography in structural biology studies, mainly explanation of the structure-function relationship in receptors, new enzymes, and bacterial transcription machinery. A significant part of my career was devoted to development of bio-crystallography in the Czech research environment and to design and realization of the central laboratories for structural biology research in the centre Biocev. I work at the Institute of Biotechnology of the Czech Academy of sciences as group leader of the Laboratory of Structure and Function of Biomolecules and as head of the Centre of Molecular Structure, part of the Czech Infrastructure for Integrative Structural Biology and of the European infrastructure Instruct-ERIC. My other activities include teaching at Prague universities, organization of workshops and conferences, and activities in the European Crystallographic Association (member of Executive committee). Chairman of the Council of the Czech Society for Structural Biology since its foundation in 2010, and its representative in the Council of Research Societies of the Czech Republic (Rada Vedeckych Spolecnosti CR) since 2013.

In the coming term I would like to continue support for the regular student competition for Prizes of CSSB, boost use of the CSSB web site for internal communication of the structural biology community and get national research groups more intensively involved in organization of the Society's life and visibility of our field in the Czech research environment (contributions and suggestions are welcome).

Mgr. Jarmila Dušková, Ph.D., Institute of Biotechnology, AS CR, Vestec

<http://www.ibt.cas.cz/vyzkum/laboratore/laborator-struktury-a-funkce-biomolekul/kontakty.html>

Jarmila Dušková currently works at the Institute of Biotechnology of the Czech Academy of Sciences as a member of the Laboratory of structure and function of biomolecules. She focuses on protein purification, biophysical characterization and techniques related with protein X-ray structure analysis - from crystallization to structure refinement. She took part in designing crystallization and diffraction core facilities and other laboratories of the research center BIOCEV. She was a long term coordinator of the international UNESCO/IUPAC Postgraduate Course in Polymer Science at the Institute of Macromolecular Chemistry. She has rich experience in organizing workshops and conferences.

Within the CSSB she would organize scientific meetings and workshops and also undertake the common agenda that occurs.

Mgr. David Kopečný, Ph.D., Department of protein biochemistry and proteomics, Palacký University, Olomouc

<https://www.upol.cz/nc/kontakty/vyhledavani/kontakt/empid/22063/>

David Kopečný (born 1977) is a member of Department of protein biochemistry and proteomics at the Centre of the Region Haná for Biotechnological and Agricultural Research, UP in Olomouc. In 2006, he obtained Ph.D. degree in biology from University Paris-Sud XI, Orsay (France) and Ph.D. degree in biochemistry from Palacký University in Olomouc "cotutelle de thèse"). He worked as an EGIDE and Marie-Curie fellow in the Laboratory of Cell Biology, INRA Versailles, France in the laboratory of Dr. Michel Laloue on metabolism of plant hormones cytokinins. He is/was principal investigator and co-investigator of four GACR projects and has an extensive collaboration with scientists at INRA Versailles, Université Paris-Saclay and Universität Hamburg. His main interest are plant enzymes related to cytokinin, purine and aldehyde metabolism focused on structure-functional characterization as well as on development of cytokinin oxidase/dehydrogenase inhibitors for agricultural use.

Mgr. Tomáš Koval', Ph.D., Institute of Biotechnology, AS CR, Vestec

<http://www.ibt.cas.cz/vyzkum/laboratore/laborator-struktury-a-funkce-biomolekul/>

Currently, I'm an ancient postdoc working in the Laboratory of structure and function of biomolecules at the Institute of Biotechnology of the Czech Academy of Sciences. My research projects involve mostly proteins interacting with nucleic acids with focus on their potential utilization in biotechnology. I received my Ph.D. in Biophysics, Chemical and Macromolecular Physics, at Charles University in Prague, in 2012 with the research part done at the Institute of Physics and the Institute of Macromolecular Chemistry of the Czech Academy of Sciences. For several months I was visiting scientist at the Oxford Protein Production Facility (OPPF), Research Complex at Harwell, UK and at the BESSY II synchrotron radiation source, Helmholtz Zentrum Berlin, DE. Although my background lies in the x-ray crystallography, I strive to use as many different techniques and approaches as reasonably conceivable in order to get the best structure-function analyses as time and funding allows. Therefore as part of scientific board of our Society I would encourage creation of new opportunities for multidisciplinary cooperation in our community and also in the region of Central Europe (conferences, workshops, web tools, forums or databases with list of available techniques or partners looking for specific cooperation).

prof. Mgr. Ivana Kutá Smatanová, Ph.D., Faculty of Science, University of South Bohemia, České Budějovice

<https://nh.cas.cz/index.php?changeLanguage&language=en&node=366>

Ivana Kutá Smatanová is the head of the Structural Chemistry Laboratory at the Faculty of Science University of South Bohemia in Ceske Budejovice. IKS systematically deals with protein crystallization and crystallography over 20 years. The main subjects of her research are crystallization and structural-functional studies of many soluble and membrane proteins. IKS is an author and co-author of 51 publications, including 47 publications in impacted scientific journals, 2 books and 2 book chapters, H-index 12. IKS has been involved in the Ph.D., MSc. and Bc. students' education since 2001, 22 students successfully completed studies at USB. IKS is responsible for MSc. Biochemistry, Ph.D. Biochemistry accreditation at the University of South Bohemia and she introduced 6 new subjects. IKS is the researcher/co-researcher of the GAČR, AVČR, MŠMT, FEBS projects and many international cooperation projects (Kontakt, COST, Aktion). IKS collaborates with world-renowned scientists on the development and testing of new crystallization techniques used for soluble and membrane proteins. IKS has been main organizer of the Crystallization Courses and FEBS Advanced Course "Advanced methods in macromolecular crystallization" since 2001. IKS was the president, vice president and now is the Ex-Officio of IOBCr, she was member of FEBS ACC. Currently, she is the secretary of the Regional committee CSCA, member of the CSSB Council, CABMB, CIISB EC, GAJU, IPC ISBC Granada (Spain), chairwoman of the IPC 25th Congress & General Assembly of the IUCr2020 (Praha, CZ). She also acts as a technical editor of the journal: Material Structure in Chemistry, Biology, Physics and Technology (ISSN 1211-5894 (print), ISSN 1805-4382 (online)), reviewer of crystallographic journals IUCr (Acta Crystallographica) and Crystal Growth and Design. IKS was the main organizer of the "16th International Conference on the Crystallization of Biological Macromolecules 2016 (ICCBM16)", the main organizer of the International Symposium "Proteins in Action - biophysical techniques for protein research (PA2017)" and co-organizer of the annual "Discussions in Structural Molecular Biology". IKS is regularly invited to give lectures at international conferences and foreign universities.

doc. Ing. Vojtěch Spiwok, Ph.D., University of Chemistry and Technology, Prague

<https://web.vscht.cz/~spiwokv/>

I am researcher and lecturer at the University of Chemistry and Technology, Prague. Our group focuses on use and development of biomolecular simulations methods. The main problem of biomolecular simulations is in their enormous computational costs that makes them inefficient in applied tasks such as protein structure prediction or ligand design. The aim of our group is to develop new techniques to make simulations more efficient using new simulation tools (such as our Flying Gaussian method), by means of machine learning and other approaches.

In 2019 my activity in CSSB was much lower than in previous years, but I believe I will restart my CSSB engagement in 2020 with help to create a Czech structural biology questionnaire leading to a Czech structural biology directory.

Mgr. Ivana Nemčovičová, Ph.D., Biomedical Research Center SAV, Bratislava

https://www.sav.sk/?lang=en&doc=user-org-user&user_no=9260

Ivana Nemčovičová is a young scientist (38 years old) working with high attitude and motivation on several research projects in the Biomedical Research Center SAV. She was awarded PhD degree in Biophysics in November 2007 and since that she has been advancing her research experiences at several prominent institutions for over 10 years abroad. She spends 5 years at La Jolla Institute (California, USA), which is one of the top five research institutions in immunology in the world. She also conducted several shorter research stays at the Princeton University (USA), Johannes Kepler University (Austria), University of Vienna (Austria), University of South Bohemia (Czech Republic) and many others. While advancing her career, she gained all the necessary expertise in crystallography, cell biology, virology and immunology and she is also flexible to learn new things. In 2008, she was awarded special Ernst Mach Stipendium from Austrian Academy of Sciences and since 2015 she holds proud status of Marie Curie Fellow.

Currently, she also works as a member of the special committee for doctoral Biochemistry studies at Faculty of Science at University of South Bohemia. She serves actively as an appointed Expert for evaluation and review process of H2020 and MCSA projects in Research Executive Agency of European Commission. She is a supervisor of 2 PhD students and several national and international MSc students.

prof. RNDr. Vladimír Sklenář, DrSc., Central European Institute of Technology, Masaryk University, Brno

<https://www.muni.cz/en/people/2611-vladimir-sklenar>

Vladimír Sklenář graduated in 1974 at Masaryk University in Brno, Czech Republic with the Master degree in Chemistry. In 1985, he obtained Ph.D. in Applied Physics from Brno Technical University. During 1986/87, he spent 15 months as a post-doc with Ad Bax at NIADDK, NIH, Bethesda, USA. In 1989, as a visiting scholar, he established a fruitful collaboration with prof. Julie Feigon at UCLA in Los Angeles. In the period 1992-95, he worked as a visiting scientist at Marion Merrel Dow research centre in Strasbourg, France. In 1995, Vladimír Sklenář joined Masaryk University, became a head of NMR laboratory, and was promoted to a full professor of physical chemistry in 1997. During past decade, he built up the structural biology program of CEITEC (Central European Institute of Technology) and acts now as a Chair of the Czech Infrastructure for Integrative Structural Biology (CIISB). He serves on the editorial boards of several international journals. His main research interests have been focused on developments of multi-dimensional NMR methods for studies of biomacromolecular systems and on applications of modern methods of integrative structural biology. Professor Sklenář published over 150 scientific papers in peer reviewed international journals, which have been cited more than 10000-times.

prof. RNDr. Michaela Wimmerová, Ph.D., Central European Institute of Technology, Masaryk University, Brno

<https://www.ceitec.cz/prof-rndr-michaela-wimmerova-ph-d/u17582>

Michaela Wimmerová is a professor of Biochemistry at Masaryk University (MU), Brno. She received her PhD in the field of protein biochemistry in 1996 from MU. She was appointed as Assistant professor at Department of Biochemistry MU. After a few years, she spent one year sabbatical at Centre de Recherches sur les Macromolécules Végétales, CNRS, in Grenoble, France, where her research interests switched to the field of structural glycobiology. Currently she serves as the Head of the Glycobiology research group and the Head of the Biomolecular Interactions and Crystallization Core Facility (BIC) at Faculty of Science and Central European Institute of Technology, Masaryk University. The main research direction of the group is studying carbohydrate-binding proteins (lectins) that mediate host-pathogen interactions, mainly using structural biology, molecular biology and biophysical approaches. She is also able to bridge experimental methods of structural biology with bioinformatics. In addition to teaching activities in undergraduate and graduate studies, she organizes regularly various workshops and training schools focused on utilizing different approaches for structural characterization of proteins and biomolecular interactions. Her vision within CSSB is to contribute to visibility of the Society within the European research space, and also to boost current BIC activities to educate scientists about a necessity of the sample quality check before any experiment takes place. As a member of CIISB Steering Committee, she attempts to work on sustainability of structural biology infrastructure in the Czech Republic.

prof. Mgr. Lukáš Žídek, Ph.D., Central European Institute of Technology, Masaryk University, Brno

<https://www.ceitec.cz/prof-mgr-lukas-zidek-ph-d/u17604>

My long-term research interest is investigation of structure, dynamics, and biologically relevant properties of proteins, using NMR spectroscopy and other high-resolution approaches. Currently, my group is mostly interested in studies of molecular motions using NMR relaxation and relaxation dispersion; in studies of protein disorder using NMR approaches providing sufficient resolution (usually based on non-uniformly sampled high-dimensional spectra); and in studies of interactions of intrinsically disordered proteins with their binding partners (using NMR, cryo-EM, and biophysical methods). The systems currently studied in the laboratory include bacterial RNA polymerases and microtubule associated proteins.

My vision is that CIISB continues playing two important roles: (1) supporting research in the field of structural biology in synergy with the Czech Infrastructure for Integrated Structural Biology and acting as the International user group, (2) organizing conferences, most importantly the annual Discussions in Structural Molecular Biology. I do not see any need to change the mission of CSSB, but I am ready to support flexible responses to current needs.