

PERSONAL

Birth date: November 12 1957, Berlin, Germany

Married since 1984, two daughters.

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POSITIONS

- 2020- Director of the Institute of Biotechnology of the Czech Academy of Sciences.
- 2012- Chair of the research program „Structural biology and protein engineering“ of the center BIOCEV (<http://biocev.eu>).
- 2008 Joined the Institute of Biotechnology of the Czech Academy of Sciences. Structural biology, bioinformatics, protein engineering, and x-ray crystallography. Recognition of biomolecules, development of specific protein ligands. Since 2011, Head of the Lab. of biomolecular recognition. Collaboration with Drs. de Brevern (Université Paris-7 Diderot), Svozil (Prague Institute of Chemical Technology), Sychrovský (IOCB CAS), Kratochvílová (Physical Institute CAS) on nucleic acid structure, biophysics, and bioinformatics.
- 2001-08 Center for complex molecular systems and biomolecules (Prof. Hobza, Head) at the IOCB CAS. RNA and DNA conformational variability. Collaboration on quantum chemical predictions of NMR parameters with Dr. Sychrovský. Solvation of nucleic acids. Continuing collaboration with RCSB PDB (Prof. Berman, Director), work on the Protein Data Bank (PDB) and the Nucleic Acid Database (NDB). An external collaborator of the European Bioinformatics Institute (EBI), laboratory of Dr. Henrick, Hinxton, UK.
- 2002- Teaching courses “Structural Bioinformatics” at Charles University (Faculty of Natural Sciences) and X-ray crystallography at South Bohemian University in České Budějovice.
- 1995-97, 2000- 2011 Teaching course “Methods of description and determination of molecular structures” at Faculty of Mathematics and Physics of Charles University in Prague, Institute of Chemical Technology Prague, and Palacký University Olomouc.
- 1998-00 Rutgers University, lab. of Prof. Helen M. Berman. Working on the NDB project and development and maintenance of the new PDB managed by the Research Collaboratory for Structural Biology, RCSB.
- 1992-97 J. Heyrovský Institute of Physical Chemistry. Hydration and solvation of biomolecules modeled by analysis of crystallographic structural data, flexibility and dynamics of DNA conformations. Collaboration on the NDB project with Prof. Berman at Rutgers University (four 2 - 5 month visits). Structure-activity relationships of psychoactive and anti-inflammatory drugs (collaboration with Dr. Kuchař at the Pharmaceutical Research Institute in Prague).
- 1996-97 The Haddow Fellowship at the Institute for Cancer Research, Cancer Research Campaign, London at Prof. S. Neidle’s laboratory (3 months).
- 1990-92 Postdoctoral stay, Rutgers University, N.J., USA, Laboratory of Prof. Helen M. Berman. Crystallography of oligonucleotides and proteins, collaboration on development of NDB and modeling of hydration of DNA.
- 1984-90 Pharmaceutical Research Institute, Prague. Use of UV/vis, IR, NMR techniques for confirmation of chemical identity. Later, a Ph.D. study of structure – activity relationships of anti-depressive drugs of a new type by means of small molecule crystallography. Systematic study of conformational behavior of these molecules by analysis of crystal structures and theoretical calculations.
- 1982-84 J. Heyrovský Institute, Prof. Zahradník’s laboratory. Study of weak interactions by means of quantum chemistry.

OTHER ACTIVITIES

- 2011- Member of the Commission on Biological Macromolecules (CBM) of the International Union of Crystallography (IUCr).
- 2010-18 Elected member of the of the Academy Assembly of the Academy of Sciences of the Czech Republic.
- 2014-18 A member of the Supervisory Committee of the Academy Assembly.
- 2011-14 Member of the scientific panel of the Czech Science Foundation (GA CR) for cellular, molecular, and structural biology.

EDUCATION & TITLES

- 2018 Professor, Biophysics at South Bohemian University in České Budějovice.
- 2014 Associated Professor in Biophysics. Habilitation at South Bohemian University in České Budějovice with thesis “Local Structure & Physical Properties of Nucleic Acids”.
- 2010 Title DSc (Doctor of Science) in Molecular Biology and Medical Sciences, Academy of Sciences of the Czech Republic for work on Nucleic acid structure and dynamics.
- 1989 Pharmaceutical Research Institute, Prague (VÚFB) and Institute of Macromolecular Chemistry of the Academy of Sciences. The graduate study on "Three Dimensional Structures of Diphenyl Sulfides as Potential Antidepressants".
- 1982 The Prague Institute of Chemical Technology, Department of Physical Chemistry (VŠCHT Praha). Master Degree obtained for work on the gas liquid equilibria in the water-ammonia-carbon dioxide system.

ORGANIZATION ACTIVITIES

- One of the initiators and a member of the Executive and Steering committees of the 3D-Bioinfo, ELIXIR Community on structural bioinformatics.
- The initiator & main organizer of fifteen meetings “Discussions in Structural Molecular Biology” (<http://cssb.structbio.org/>) held in Nové Hradky March 2002 – 2018 that were attended by 75 to 135 participants. Co-organizer of the Discussions afterwards.

SCIENTIFIC INTERESTS

- Intermolecular interaction and recognition of biomolecules
 - Structure, conformational dynamics, and solvation of nucleic acids
 - Structure, conformational dynamics, and solvation of proteins
- Design, development, and use of structural databases
- Scientific illustrations, namely molecular graphics

OVERVIEW OF THE PUBLICATION ACTIVITY

- ResID D-2565-2009
- OrcID 0001-7855-3690
- 72 papers in peer-reviewed journals
- 10 book chapters and reviews
- 4,251 total citations (according to ResearchID 2020-03-17)
- H-index 24