

Institute of Microbiology CAS - Nové Hrady (Laboratory of Structural Biology and Bioinformatics)

Mikrobiologický ústav AV ČR, v. v. i. - pracoviště Nové Hrady

The laboratory conducts research in structural and systems biology at the level of molecules, cells, tissues and the whole organism. The research combines a variety of methods ranging from computational and spectroscopic to molecular biological, biochemical with protein crystallography. The laboratory focuses on molecular systems biology, the relationship between protein structure and function, dynamic changes associated with functional processes at the protein level, the interaction of cofactors and subunits in protein complexes, and the study of ion and biomolecule passage across the cell membrane. The castle grounds also include an extensive congress centre.

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Services

Services for the private sector:

- Offer of laboratories for training and workshops, offer of conference rooms with accommodation capacity (for conferences, retreats, trainings, seminars, meetings, congresses, workshops and other corporate events or even balls).

Services for the public sector:

- Research activities in the field of structural biology, bioinformatics and systems biology. Organisation of training courses and excursions for schools. Organisation of professional conferences. Offer of training facilities, including laboratories. Offer of conference facilities with accommodation (for conferences, retreats, training sessions, seminars, meetings, congresses, workshops and other events for the scientific and public sectors).

More also at www.konferencnizamek.cz

Equipment / infrastructure

There is a basic molecular biology laboratory, a protein crystallography laboratory including an X-ray diffractometer, equipment for two-photon polarization microscopy, a laboratory for membrane physiology research and an equipped computer room with a computer cluster. The building also houses a conference centre with historic halls including a theatre hall, an equipped restaurant and accommodation facilities with 17 rooms with a total capacity of 44 beds.

Best practices / case studies of cooperation

- Cooperation (in the field of two photon polarization microscopy) with Innovative Bioimaging, s.r.o., Podolska 1490/6, 14700 Prague 4, Czech Republic
- Cooperation (organizing excursions in research laboratories) with the Trhové Sviny Gymnasium Školní 995, 374 01 Trhové Sviny and the Czech-English Gymnasium in České Budějovice.
- Cooperation in organizing conferences with institutes of the Academy of Sciences of the Czech Republic, University Hospital in Motol, South Bohemian Theatre. Organization of summer schools, FEBS courses and EMBO workshops.

Keywords

Molecular biology; structural biology; bioinformatics; computational chemistry; conference centre; seminars; conferences; workshops