

Seznam publikací ústavu v roce 2014:

Laboratoř biomolekulárního rozpoznávání – Bohdan Schneider

1. **Cerny J., Biedermannova L., Mikulecky P., Zahradnik, J., Charnavets T., Sebo P., Schneider B.:** Redesigning protein cavities as a strategy for increasing affinity in protein-protein interaction. Interferon- γ receptor 1 as a model. Biomed Research International, accepted for publication Dec 27 2014 (2015)
2. **Schneider B.,** Gelly J.C., de Brevern A. G., **Cerný J.:** Local dynamics of proteins and DNA evaluated from crystallographic B-factors. Acta Crystallographica D70, 2413–2419, 2014
3. **Nunvar J.,** Elhottova D., Chronakova A., **Schneider B.,** Licha I.: Draft Genome Sequence of *Stenotrophomonas maltophilia* Strain 5BA-I-2, a Soil Isolate and a Member of a Phylogenetically Basal Lineage. Genome Announc. Mar 6;2(2), 2014
4. Kuchar M., Vankova L., Petrokova H., **Cerny J.,** Osicka R., Pelak O., Sipova H., **Schneider B.,** Homola J., **Sebo P.,** Kalina T., Maly P.: Human interleukin-23 receptor antagonists derived from an albumin-binding domain scaffold inhibit IL-23-dependent ex vivo expansion of IL-17-producing T-cells. Proteins. Jun;82(6):975-89, 2014
5. **Schneider, B., Cerny, J.,** Svozil, D., Cech, P., Gelly, J.C., de Brevern, A.G.: Bioinformatic analysis of the protein/DNA interface. Nucleic Acids Res. Mar;42(5):3381-94, 2014
6. Vymetal, J., Bathula, S. R., **Cerny J.,** Chaloupkova R., Zidek, L., Sklenar V., Vondrasek J. Retro operation on the Trp-cage miniprotein sequence produces an unstructured molecule capable of folding similar to the original only upon 2,2,2-trifluoroethanol addition. Protein Engineering Design and Selection, 27(12): 463-472, 2014.

Laboratoř inženýrství vazebných proteinů - Petr Malý

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Laboratoř strukturní biologie – Cyril Bařinka

1. **Pavlicek J, Ptacek J,** Cerny J, Byun Y, **Skultetyova L.,** Pomper M.G., Lubkowksi J., **Bařinka C.:** Structural characterization of P1'-diversified urea-based inhibitors of glutamate carboxypeptidase II. Bioorg Med Chem Lett, 24:2340-2345, 2014

2. Navratil M., **Ptacek J.**, Sacha P., Starkova J., Lubkowski J., **Barinka C.**, Konvalinka J.: Structural and Biochemical Characterization of the Folyl-poly-γ-L-glutamate Hydrolyzing Activity of Human Glutamate Carboxypeptidase II. *FEBS Journal*, 281:3228–3242, 2014
3. Tykvart J., Navratil V., Sedlak F., Corey E., Colombatti M., Fracasso G., Koukolik F., **Barinka C.**, Sacha P., Konvalinka J.: Comparative analysis of monoclonal antibodies against prostate-specific membrane antigen (PSMA). *Prostate*, 74(16): 1674-1690, 2014

Laboratoř struktury a funkce biomolekul – Jan Dohnálek

1. **Skalova T.**, Blaha J., Harlos K., **Duskova J.**, Koval T., **Stransky J.**, **Hasek J.**, Vanek O. **Dohnalek J.**: Four crystal structures of human LLT1, a ligand for human NKR-P1, in varied glycosylation and oligomerization state. *Acta Crystallographica D*, accepted.
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3. Mikesova J, **Hasek J.**, Tishchenko G, Morganti P.: Rheological study of chitosan acetate solutions containing chitin nanofibrils. *Carbohydr Polym.* Nov 4; 112:753-7, 2014

Laboratoř molekulární terapie – Jiří Neuzil

1. Tan A.S., Baty J.W., Dong L., Bezawork-Geleta A., Endaya B., Goodwin J. **Bajzikova M.**, **Kovarova J.**, Peterka M., Yan B., Pesdar E.A. Sobol M., Filimonenko A., Stuart S., Vondrusova M., **Kluckova K.**, Sachaphibulkij K., **Rohlena J.**, Hozak P., Truksa J., Eccles D., Haupt L.M., Griffiths L.R., **Neuzil J.**, Berridge M.V.: Mitochondrial genome acquisition restores respiratory function and tumorigenic potential of cancer cells without mitochondrial DNA. *Cell Metabolism*, 21, 1 (2015), 81-94,(accepted 2014)
2. Tomasetti M., Nocchi L., Staffolani S., Manzella N., Amati M., Goodwin J., **Kluckova K.**, Nguyen M., Strafella E., **Bajzikova M.**, Peterka M., Lettlova S., Truksa J., Lee W., Dong L.F., Santarelli L., **Neuzil, J.**: Antioxidants & Redox Signaling. 21,15, 2014, 2109-2125.
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Laboratoř genové exprese – Mikael Kubista

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Laboratoř reprodukční biologie – Jana Pěkníková

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Laboratoř molekulární patogenetiky – Gabriela Pavlínková

1. **Bohuslavova R,** Kolar F, Sedmera D, Skvorova L, Papousek F, Neckar J, **Pavlinkova G.** Partial deficiency of HIF-1 α stimulates pathological cardiac changes in streptozotocin-induced diabetic mice. *BMC Endocr Disord.* 2014 Feb 6;14:11.

Laboratoř nádorové rezistence – Jaroslav Truksa

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Laboratoř imunopatologie a imunoterapie – Šárka Růžicková