
Laboratory for General Biochemistry and Haematology

"Our team provides service for other research teams of the biomedical centre and performs analyses as required of each research team."

Offer

- Broad spectrum of both routine and special biochemical analyses (substrates, enzymes, minerals)
- Examination of blood cell including five-population differential count of leukocytes
- Basic and special haemocoagulation examinations
- Quantitative determination of biomarkers in very low concentrations (cytokines, adhesion molecules, organ damage biomarkers, oxidative stress markers, hormones etc.) by ELISA method in both human and animal samples of biological material
- Development of new methods and measurement of absorption spectra in visible and UV light in low volume samples
- Development of new methods and measurement of excitation and emission spectra on a fluorimeter including measurement for a special ELISA methods (with fluorimetric detection)

Expertise

Our research team exercises wide spectrum of routine and special analyses feasible on both human and animal samples:

- biochemical analysis (Na⁺, K⁺, Cl⁻; substrates, enzymes, minerals)
- haematological examination (blood cell count including five types of white blood cell differential, elementary and special coagulation tests, quantitative determination of biomarkers in very low concentrations)
- immunochemical analysis based on ELISA method (measurement in the extend UV and VIS, small volume samples)
- analysis on the HPLC with the possibility of detection various analytes (HPLC-MS)

Members

- Prof. Jaroslav Racek, M.D., D.Sc. – Research Group Leader
- Blanka Florová, M.Sc.
- Pavel Prokop, DiS.
- Tereza Rípková, M.Sc.
- Ladislav Trefil, M.Sc.
- Michal Vostrý, M.Sc.

Selected Publications

- Cibulka, R., Racek, J., Pikner, R., Trefil, L., Vesela, E., Studenovska, M., Siroka, R.: *Effect of L-carnitine supplementation on secondary hyperparathyroidism and bone metabolism in haemodialysis patients*. *Calcif. Tissue Internat.*, 81, 2007: 99–106
- Eiselt, J., Racek, J., Trefil, L., Rajdl, D.: *Asymmetric dimethylarginine in hemodialysis, hemodiafiltration and peritoneal dialysis*. *Artif. Organs*, 34 (5), 2010: 420–425
- Racek, J., Sindberg, C. D., Moesgaard, S., Mainz, J., Fábry, J., Müller, L., Ráková, K.: *Effect of chromium-enriched yeast on fasting plasma glucose, glycated haemoglobin and serum lipid levels in patients with type 2 diabetes mellitus treated with insulin*. *Biol. Trace Element Res.*, 155 (1), 2013: 1–4
- Teplan, V., Schück, O., Racek, J., Lecian, D., Haluzik, M., Kudla, M., Vitko, S.: *Asymmetric dimethylarginine in obesity after renal transplantation*. *J. Ren. Nutr.*, 18(6), 2008: 513–520
- Eiselt, J., Rajdl, D., Racek, J., Vostrý, M., Rulcová, K., Wirth, J.: *Asymmetric dimethylarginine and progression of chronic kidney disease – a one-year follow-up study*. *Kidney Blood Press. Res.*, 39 (6), 2014: 50–57
- Sedlackova, T., Racek, J., Rajdl, D., Kielberger, L., Eiselt, J., Malanova, L., Babuska, V.: *Relationship between hepcidin and ferritin in haemodialysed patients*. *Wien. Klin. Wschr.*, 125 (15), 2013: 448–452

Are you interested in this expertise?

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Experts and their department

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