

MIKLÓS POÓR



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RESEARCH AREA

I. Interaction of mycotoxins with biomolecules and with potential mycotoxin binders: Toxicokinetic studies, investigation of combinative effects, and experiments with potential mycotoxin binders (for toxin extraction, decontamination, and/or detoxification purposes). II. Interaction of natural polyphenols and their metabolites with drugs: Certain dietary supplements contain extremely high doses of polyphenols; in this project, the interaction of these polyphenols and their metabolites are examined with important proteins from the pharmacokinetic point of view (e.g., serum albumin, biotransformation enzymes, drug transporters).

TECHNIQUES AVAILABLE IN THE LAB

UV-Vis and fluorescence spectroscopy, investigation of protein-ligand interactions, in vitro enzyme assays, HPLC, plate reader, cell experiments.

SELECTED PUBLICATIONS

Poór, M., Faisal, Z., Zand, A., Bencsik, T., Lemli, B., Kunsági-Máté, S., Szenté, L. (2018) Removal of zearalenone and zearalenols from aqueous solutions using insoluble beta-cyclodextrin bead polymer. **Toxins** **10**: 216.

Mohos, V., Pánovics, A., Fliszár-Nyúl, E., Schilli, G., Hetényi, C., Mladěnka, P., Needs, P.W., Kroon, P.A., Pethő, G., **Poór, M.** (2019) Inhibitory effects of quercetin and its human and microbial metabolites on xanthine oxidase enzyme. **Int J Mol Sci** **20**: 2681.

Faisal, Z., Garai, E., Csepregi, R., Bakos, K., Fliszár-Nyúl, E., Szenté, L., Balázs, A., Cserhádi, M., Kőszegi, T., Urbányi, B., Csenki, Z., **Poór, M.** (2020) Protective effects of beta-cyclodextrins vs. zearalenone-induced toxicity in HeLa cells and Tg(vtg1:mCherry) zebrafish embryos. **Chemosphere** **240**: 124948.

Mohos, V., Fliszár-Nyúl, E., Ungvári, O., Bakos, É., Kuffa, K., Bencsik, T., Zsidó, B.Z., Hetényi, C., Telbisz, Á., Özvegy-Laczka, C., **Poór, M.** (2020) Effects of chrysin and its major conjugated metabolites chrysin-7-sulfate and chrysin-7-glucuronide on cytochrome P450 enzymes, and on OATP, P-gp, BCRP and MRP2 transporters. **Drug Metab and Dispos** **48**: 1064-1073.

Fliszár-Nyúl, E., Szabó, Á., Szenté, L., **Poór, M.** (2020) Extraction of mycotoxin alternariol from red wine and from tomato juice with beta-cyclodextrin bead polymer. **J Mol Liq** **319**: 114180.

Csenki, Z., Garai, E., Faisal, Z., Csepregi, R., Garai, K., Kánainé Sipos D., Szabó, I., Kőszegi, T., Czéh, Á., Czömpöly, T., Kvell, K., **Poór, M.** (2021) The individual and combined effects of ochratoxin A with citrinin and their metabolites (ochratoxin B, ochratoxin C, and dihydrocitrinone) on 2D/3D cell cultures, and zebrafish embryo models. **Food Chem Toxicol** **158**: 112674.