

CURRICULUM VITAE

PERSONAL INFORMATION

Name	Mgr. Medvedíková Martina, Ph.D.
Adress	Merettova 208/28, 779 00 Olomouc
Telephone	+420 728 401 643
E-mail	martina.medvedikova@upol.cz
Nationality	Czech
Date of birth	September 29, 1988, Olomouc, CZ
Sex	Female
ORCID ID	0000-0002-2382-7997

ACADEMIC EDUCATION

2013 – 2026	Doctoral study programme Medical Pharmacology Faculty of Medicine and Dentistry, Palacky University, Olomouc Thesis: Study of the interactions of copper(II) and gold(I) complexes with human liver cytochrome P450 and their pharmacological potential
2011 – 2013	Master's degree, study programme Biochemistry Faculty of Sciences, Palacky University, Olomouc Thesis: Characterization of the binding of platinum complexes on DNA
2008 – 2011	Bachelor's degree, study programme Biochemistry Faculty of Sciences, Palacky University, Olomouc Thesis: Study of interaction of transplatin derivatives with humen cytochromes P450

WORK EXPERIENCE

2025 – to date	Institute of Molecular and Translational Medicine (IMTM), Faculty of Medicine and Dentistry, Palacky University Olomouc, Czech Republic, position: Researcher
2020 - 2025	Parental break
2015 – 2020	Institute of Molecular and Translational Medicine (IMTM), Faculty of Medicine and Dentistry, Palacky University Olomouc, Czech Republic, position: Researcher
2013 – 2015	Faculty of Medicine and Dentistry, Palacky University Olomouc, Czech Republic, Department of Pharmacology, position: Researcher

ADDITIONAL INFORMATION

Internship	3/2019 – Manchester Institute of Biotechnology, Manchester, UK
Awards received	2017 – Endowment fund of Palacký University

SCIENTIFIC AND PROFESSIONAL SKILLS

- Enzyme kinetics, determination of cytochrome P450 enzyme activities and their expression
- Study of absorption, distribution, metabolism and excretion (ADME) of drugs
- High performance liquid chromatography
- Mass spectrometry – Qtrap ion trap
- RapidFire high throughput LC/MS analysis
- Isothermal titration calorimetry
- Spectrophotometry
- Raman spectroscopy – Raman microscopy
- Electrophoretic methods (agarose gels)
- Cell culture – Caco -2, MDCK cell lines, hepatocytes

Language English (B2)

PUBLICATIONS

Martina Medvedíková; Ján Vančo; Zdeněk Trávníček; Pavel Anzenbacher. In Vitro Cytochrome P450 Interaction Profile and ADME Characterization of Gold(I)–Triphenylphosphine Complexes with O-Substituted 9-Deazahypoxanthine Ligands. *Pharmaceutics*. 2026, **18**, 599.

Ivo Frydrych; Jiří Řehulka; Lucie Slavíková; Jiří Hodoň; Jan Pokorný; Veronika Šidová; Martina Medvedíková; Hanuš Slavík; Pavel Polishchuk; Tomáš Oždian et al. Triterpenoid derivatives inhibit Gli-mediated transcription in human glioblastoma cell line via direct interaction with Gli1. *Journal of Biological Chemistry*. 2025, **10**, 110472

Barbara Maková; Václav Mik; Barbora Lišková; Lenka Drašarová; Martina Medvedíková; Alena Hořínková; Petr Vojta; Marek Zatloukal; Lucie Plíhalová; Martin Höning et al. Correction of aberrant splicing of ELP1 pre-mRNA by kinetin derivatives - A structure activity relationship study. *European Journal of Medicinal Chemistry*. 2025, **284**, 117176.

Martina Medvedíková; Václav Ranc; Jan Vanco; Zdeněk Trávníček; Pavel Anzenbacher. Highly Cytotoxic Copper(II) Mixed-Ligand Quinolinonato Complexes: Pharmacokinetic Properties and Interactions with Drug Metabolizing Cytochromes P450. *Pharmaceutics*. 2023, **15**, 1314.

Jiří Hodoň; Ivo Frydrych; Zdeňka Trhlíková; Jan Pokorný; Lucie Borková; Sandra Benická; Martin Vlk; Barbora Lišková; Agáta Kubíčková; Martina Medvedíková et al. Triterpenoid pyrazines and pyridines – Synthesis, cytotoxicity, mechanism of action, preparation of prodrugs. *European Journal of Medicinal Chemistry*. 2022, **243**, 114777.

Bruno Sopko; Gracian Tejral; Guissepe Bitti; Marianna Abate; Martina Medvedikova; Marian Hajduch; Jan Chloupek; Jolana Fajmonova; Misa Skoric; Evzen Amler et al. Glyphosate Interaction with eEF1 α 1 Indicates Altered Protein Synthesis: Evidence for Reduced Spermatogenesis and Cytostatic Effect. *ACS Omega*. 2021, **6**, 14848-14857

Vlastimil Mašek and Martina Medvedíková. Raman imaging of adherent cells. In: Marián Hajdúch et al. *Laboratory techniques in cellular and molecular medicine*. 1st edition, Olomouc: Palacký University Olomouc, 2021, 183-192. ISBN 978-80-244-6049-9.

Martina Medvedíková; Alejandro Carazo; Barbora Lišková. Study of absorption, distribution, metabolism and excretion (ADME) properties of the new drug candidates in pre-clinical development. In: Marián Hajdúch et al. *Laboratory techniques in cellular and molecular medicine*. 1st edition, Olomouc: Palacký University Olomouc, 2021, 325-342. ISBN 978-80-244-6049-9.

Barbara Maková; Václav Mik; Barbora Lišková; Gabriel Gonzalez; Dominik Vitek; Martina Medvedíková; Beata Monfort; Veronika Ručilová; Alena Kadlecová; Prashant Khirsariya et al. Cytoprotective activities of kinetin purine isosteres. *Bioorganic and Medicinal Chemistry*, 2021, **33**, 115993.

Pavel Svec; Zbyněk Nový; Jan Kučka; Miloš Petřík; Ondřej Sedlacek; Martin Kuchař; Barbora Lišková; Martina Medvedíková; Kristýna Kolouchová; Ondřej Groborz et al. Iodinated Choline Transport-Targeted Tracers. *Journal of Medicinal Chemistry*. 2020, **63**, 15960-15978.

Lucia Veselovská; Natálie Kudlová; Soňa Gurská; Barbora Lišková; Martina Medvedíková; Ondřej Hodek; Eva Tloušťová; Nemanja Milisavljevic; Michal Tichý; Pavla Perlíková et al. Synthesis and Cytotoxic and Antiviral Activity Profiling of All-Four Isomeric Series of Pyrido-Fused 7-Deazapurine Ribonucleosides. *Chemistry – A European Journal*. 2020, **26**, 13002-13015.

Jana Dvořanová; Michael Kugler; Josef Holub; Václav Šícha; Viswanath Das; Jan Nekvinda; Suzan El Anwar; Miroslav Havránek; Klára Pospíšilová; Milan Fábry et al. Sulfonamido carboranes as highly selective inhibitors of cancer-specific carbonic anhydrase IX. *European Journal of Medicinal Chemistry*. 2020, **200**, 112460.

Lucie Borková; Ivo Frydrych; Nikola Jakubcová; Richard Adámek; Barbora Lišková; Soňa Gurská; Martina Medvedíková; Marián Hajdúch; Milan Urban. Synthesis and biological evaluation of triterpenoid thiazoles derived from betulonic acid, dihydrobetulonic acid, and ursonic acid. *European Journal of Medicinal Chemistry*. 2020, **185**, 111806.

Bohumir Gruner; Jiří Brynda; Viswanath Das; Václav Šícha; Jana Štěpánková; Jan Nekvinda; Josef Holub; Klára Pospíšilová; Milan Fábry; Petr Páchl et al. Metallacarborane Sulfamides: Unconventional, Specific, and Highly Selective Inhibitors of Carbonic Anhydrase IX. *Journal of Medicinal Chemistry*. 2019, **62**, 9560-9575

Bürglová, K., G. Rylová, A. Markos, H. Přichystalová, M. Sural, M. Petráček, M. Medvedíková, G. Tejral, B. Sopko, P. Hradil, P. Džubák, M. Hajdúch and J. Hlaváč. Identification of Eukaryotic Translation Elongation Factor 1- α 1 Gamendazole-Binding Site for Binding of 3-Hydroxy-4(1 H)-quinolinones as Novel Ligands with Anticancer Activity. *Journal of Medicinal Chemistry*. 2018, **61**, 3027-3036

Škrott, Z., M. Mistrík, K. Andersen, S. Friis, D. Majera, J. Gurský, T. Oždian, J. Bartkova, Z. Turi, P. Moudrý, M. Kraus, M. Medvedíková, J. Václavková, P. Džubák, I. Vrobel, P. Pouckova, J. Sedlacek, A. Miklovicova, A. Kutt, J. Mattova, C. Driessen, Q. Dou, J. Olsen, M. Hajdúch, B. Cvek, R. Deshaies and J. Bártek. Alcohol-abuse drug disulfiram targets cancer via p97 segregase adaptor NPL4. *Nature*, 2017, **552**, 194–199

Masek V; Starha P; Harvanova M; Michalova M; Milde D; Travnicek Z; Anzenbacherova E. Interaction of selected platinum (II) complexes containing roscovitine - based CDK inhibitors as ligands with human liver microsomal cytochrome P450. *Biomedical Papers of the Medical Faculty of the University Palacky, Olomouc, Czech Republic*, 2015, **159**(3), 382-387