

Barbora Neužilová

E-mail: barbora.neuzilova@upol.cz

Telephone: +420585632138

ORCID: 0000-0003-0273-6671

Working experience

- 3/2023 to present **Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry, Palacky University, Olomouc**
Small animal imaging
- Researcher**
- radiolabeled compounds for microPET/SPECT/MRI/CT imaging
 - *in vitro* analysis of radiolabeled compounds (radio-HPLC, radio-iTLC, gamma counter analysis)
 - *in vivo/ex vivo* biodistribution studies
- 11/2021 to 2/2023 **Institute for Clinical and Experimental Medicine (IKEM) in Prague, Department of Nuclear Medicine**
- Expert in laboratory methods**
- Preparation, control and registration of medicines – radiopharmaceuticals
- 2015 to 6/2023 **CTU in Prague, Faculty of Nuclear Sciences and Physical Engineering**
- Researcher at the Department of Nuclear Chemistry**
- Research and teaching activities
 - Supervisor of bachelor theses
 - Proposer of student grants (Student grant competition)
 - Cooperation on scientific projects (CAAS)

Internships

- 8/2016 **Summer practise in University hospital in Motol, Prague**
Department of Nuclear medicine
- The preparation of radiopharmaceuticals and their testing for clearance
- 9-10/2015 **Joint Institute for Nuclear Research (JINR), Dubna, Russia**
Laboratory of Radiobiology

Education

- 2017 to present **Czech Technical University in Prague**
Faculty of Nuclear Sciences and Physical Engineering, Department of Nuclear chemistry
Doctoral degree: Applied Natural Sciences
Dissertation topic: Chemical protection of living cells against the effects of singlet oxygen

2012 to 2017

Czech Technical University in Prague
Faculty of Nuclear Sciences and Physical Engineering, Department
of Nuclear chemistry
Master's degree in Nuclear chemistry

Certificates and courses

- **Osvědčení o odborné způsobilosti k navrhování pokusů a projektů pokusů**
Certificate of competence to design experiments and experimental projects
University of Veterinary and Pharmaceutical Sciences Brno, Lifelong Learning Institute, 2023
- **Accredited qualification course – Production, preparation and control of medicinal products**
Institute of Postgraduate Medical Education, Prague, 2021
- **International Student Practise**
Project: Radiation sensitivity of mammalian cells to gamma radiation
Joint Institute for Nuclear Research (JINR), Dubna, Russia, 2015

Skills

- **Languages**
Czech - native language
English - intermediate
German - intermediate
- **PC Windows Offices:** Word, Excel, PowerPoint
- **Certificates Driving license B**

Publications

- (1) Nežilová, B., Čuba, V., Crhánová, M., Můčka, V. Study of cell protective effects of alcohols against UV-C radiation and comparison to gamma radiation. *Journal of Radioanalytical and Nuclear Chemistry*. **2023**, 332, 1591–1596. <https://doi.org/10.1007/s10967-023-08765-z>
- (2) Popovich, K., Klepárník, K., Ledvina, V., Nežilová, B., Fleišmann, J., Škodová, M., Kobera, L., Mihóková, E., Můčka, V., Čuba, V. Luminescent Nanocomposites for Biomedical Applications, *IEEE Transactions on Nuclear Science*. **2020**, 67(6), 962-968. <https://doi.org/10.1109/TNS.2020.2974316>.
- (3) Nežilová, B., Ondrák, L., Čuba, V., Můčka, V. ETHANOL AS A MODIFIER OF RADIATION SENSITIVITY OF LIVING CELLS AGAINST UV-C RADIATION, *Radiation Protection Dosimetry*. **2019**, 186(2-3), 191–195. <https://doi.org/10.1093/rpd/ncz200>

- (4) Ondrák, L., Vachelová, J., Davidková, M., Neužilová, B., Čuba, V., Múčka, V. RADIOPROTECTIVE EFFECT OF HYDROXYL RADICAL SCAVENGERS ON PROKARYOTIC AND EUKARYOTIC CELLS UNDER VARIOUS GAMMA IRRADIATION CONDITIONS, *Radiation Protection Dosimetry*. **2019**, 186(2-3), 186-190. <https://doi.org/10.1093/rpd/ncz201>
- (5) Múčka, V., Červenák, J., Reimitz, D., Čuba, V., Bláha, P., Neužilová, B. Effects of irradiation conditions on the radiation sensitivity of microorganisms in the presence of OH-radical scavengers. *International Journal of Radiation Biology*. **2018**, 94(12), 1142-1150. <https://doi.org/10.1080/09553002.2018.1532610>
- (6) Neužilová, B., Ondrák, L., Čuba, V., Múčka, V., Influence of the dose rate of gamma irradiation and some other conditions on the radiation protection of microbial cells by scavenging of OH radicals. *Journal of Radioanalytical and Nuclear Chemistry*. **2018**, 318(3), 2449–2453. <https://doi.org/10.1007/s10967-023-08765-z>