

KATEŘINA DVOŘÁKOVÁ BENDOVÁ

PERSONAL INFORMATION

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Researcher and Ph.D. candidate at the Institute of Molecular and Translational Medicine in the field of radiopharmacy and molecular imaging. My research is focused on radiolabeled compounds for microPET/SPECT/MRI/CT imaging, in vitro analysis of radiolabeled compounds (radio-HPLC, radio-iTLC, gamma counter analysis) and in vivo/ex vivo biodistribution studies. The aim of my research is to develop a novel probe for imaging of infections with a focus on pulmonary infections.

EMPLOYMENT

9/2020 – PRESENT **PhD student/research assistant**
Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry,
Palacky University, Olomouc, Czech Republic
Small animal imaging
Thesis: Multimodal imaging for in vivo testing of selected biomolecules

EDUCATION

9/2014 – 6/2020 **Doctor of veterinary medicine**
University of Veterinary and Pharmaceutical Sciences Brno
Faculty of Veterinary Medicine

INTERNSHIPS

6-8/2022 **Medizinische Universität Innsbruck, Department of Nuclear Medicine**
Innsbruck, Austria
Aspergillus fumigatus cultivation, isolation of fungal metabolic products, chemical modification of isolated complexes and their analysis (HPLC, MALDI-TOF)

CERTIFICATES

4/2021 **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

LANGUAGES

CZECH Mother tongue
ENGLISH C1
SPANISH A2

OTHER SKILLS

DRIVING LICENCE B
MICROSOFT OFFICE Advanced user

AWARDS

- 9/22 **Award for the best presentation in the radiopharmaceutical section**
For presentation: Radiolabeled siderophores for diagnosis of *Burkholderia cepacia* complex infection
58. Days of Nuclear Medicine, Czech Society of Nuclear Medicine ČLS JEP, 09.09.2023, Olomouc
- 9/21 **Award for the best presentation**
For presentation: Use of ⁶⁸Ga-Ornibactin for diagnosis of *Burkholderia cepacia* complex infection
2. Student Day of Nuclear Medicine, ČVUT Prague, 10.9.2023, Prague

PUBLICATIONS

- (1) Bendova, K.; Raclavsky, V.; Novotny, R.; Luptakova, D.; Popper, M.; Novy, Z.; Hajduch, M.; Petrik, M. [⁶⁸Ga]Ga-Ornibactin for *Burkholderia Cepacia* Complex Infection Imaging Using Positron Emission Tomography. *J. Med. Chem.* **2023**, *66* (11), 7584–7593. <https://doi.org/10.1021/acs.jmedchem.3c00469>.
- (2) Reissig, F.; Zarschler, K.; Novy, Z.; Petrik, M.; Bendova, K.; Kurfurstova, D.; Bouchal, J.; Ludik, M. C.; Brandt, F.; Kopka, K.; Khoylou, M.; Pietzsch, H. J.; Hajduch, M.; Mamat, C. Modulating the Pharmacokinetic Profile of Actinium-225-Labeled Macropa-Derived Radioconjugates by Dual Targeting of PSMA and Albumin. *Theranostics* **2022**, *12* (17), 7203–7215. <https://doi.org/10.7150/thno.78043>.
- (3) Barta, P.; Kamaraj, R.; Kucharova, M.; Novy, Z.; Petrik, M.; Bendova, K.; Hajduch, M.; Pavek, P.; Trejtnar, F. Preparation, in Vitro Affinity, and in Vivo Biodistribution of Receptor-Specific ⁶⁸Ga-Labeled Peptides Targeting Vascular Endothelial Growth Factor Receptors. *Bioconj. Chem.* **2022**, *33* (10), 1825–1836. <https://doi.org/10.1021/acs.bioconjchem.2c00272>.
- (4) Reissig, F.; Bauer, D.; Zarschler, K.; Novy, Z.; Bendova, K.; Ludik, M. C.; Kopka, K.; Pietzsch, H. J.; Petrik, M.; Mamat, C. Towards Targeted Alpha Therapy with Actinium-225: Chelators for Mild Condition Radiolabeling and Targeting Psma—a Proof of Concept Study. *Cancers (Basel)*. **2021**, *13* (8). <https://doi.org/10.3390/cancers13081974>.
- (5) Misslinger, M.; Petrik, M.; Pfister, J.; Hubmann, I.; Bendova, K.; Decristoforo, C.; Haas, H. Desferrioxamine B-Mediated Pre-Clinical In Vivo Imaging of Infection by the Mold Fungus *Aspergillus Fumigatus*. **2021**. <https://doi.org/jof7090734>
- (6) Pfister, J.; Petrik, M.; Bendova, K.; Matuszczak, B.; Binder, U.; Misslinger, M.; Kühbacher, A.; Gsaller, F.; Haas, H.; Decristoforo, C. Antifungal Siderophore Conjugates for Theranostic Applications in Invasive Pulmonary Aspergillosis Using Low-Molecular TaFc Scaffolds. *J. Fungi* **2021**, *7* (7), 1–18. <https://doi.org/10.3390/jof7070558>.
- (7) Krajcovicova, S.; Daniskova, A.; Bendova, K.; Novy, Z.; Sural, M.; Petrik, M. [⁶⁸Ga] Ga-DFO-c (RGDyK): Synthesis and Evaluation of Its Potential for Tumor Imaging in Mice. **2021**. <https://doi.org/10.3390/ijms22147391>