Curriculum vitae

Personal information

Name:	Dr. rer. nat. Karsten Bamminger
Phone:	+43 (0)1 40400-78300
Email:	karsten.bamminger@meduniwien.ac.at
Day of Birth:	24.08.1991
Citizenship:	Austria

Work experience

01/2025 – now	**Radiochemist** in **postdoc** position at the Department of Biomedical Imaging and Image-Guided Therapy, Division of Nuclear Medicine, **Medical University of Vienna**, 1090 Vienna.
01/2019 – 12/2024:	**Radiochemist** as **doctoral candidate** at the Department of Biomedical Imaging and Image-Guided Therapy, Division of Nuclear Medicine, **Medical University of Vienna**, 1090 Vienna.
03/2018 – 12/2018:	**Project collaborator: Medical University of Vienna**, 1090 Vienna; Routine work in nuclear medicine

Education

03/2019 – 10/2024:	**Doctoral programme Chemistry** at the **University of Vienna**, 1090 Vienna; Specialization in radiochemistry and PET-tracer development; Doctoral thesis: “Advancements in molecular imaging using small molecules for *in vivo* application”
10/2015 – 11/2018:	**Master programme Chemistry** at the **Faculty of Chemistry** of the **University of Vienna**, 1090 Vienna; graduated with Master's degree with focus on analytical chemistry, food chemistry and inorganic chemistry; Master’s thesis: “On the road towards a small-molecule PET tracer targeting PD-L1”.
10/2011 – 10/2015:	**Bachelor programme Chemistry** at the **Faculty of Chemistry** of the **University of Vienna**, 1090 Vienna; graduated with Bachelor’s degree; Bachelor thesis: “Proteomänderung induziert in SW480 Zellen durch Behandlung mit KP46“.
10/2010 – 06/2011:	**Diploma programme Pharmacy** at the **University of Vienna**, 1010 Vienna

09/2005 – 06/2009: **Grammar school with special emphasis on science** at **Bundesoberstufenrealgymnasium Linz**, 4020 Linz;
graduated with Higher School Certificate;

Publications

[1] Weidenauer A, Sauerzopf U, Bauer M, Bum C, Diendorfer C, Dajic I, Bartova L, Kastner A, **Bamminger K**, Nics L, Philippe C, Hacker M, Rujescu D, Wadsak W, Praschak-Rieder N, Willeit M. Amphetamine-Induced Dopamine Release Predicts 1-Year Outcome in First-Episode Psychosis: A Naturalistic Observation, *Schizophrenia Bulletin* 2024, (in press). doi.org/10.1093/schbul/sbae111

[2] El Biali M, Wölfl-Duchek M, Jackwerth M, Mairinger S, Weber M, **Bamminger K**, Poschner S, Rausch I, Schindler S, Hernández-Lozano I, Jäger W, Nics L, Tournier N, Hacker M, Zeitlinger M, Bauer M, Langer O. St. John's wort extract with a high hyperforin content does not induce P-glycoprotein activity at the human blood–brain barrier. *Clin. Transl. Sci.* **2024**; 17:e13804. doi:10.1111/cts.13804

[3] **Bamminger K**, Pichler V, Vraka C, Limberger T, Moneva B, Pallitsch K, Lieder B, Zacher AS, Ponti S, Benčurová K, Yang J, Högler S, Kodajova P, Kenner L, Hacker M, Wadsak W. Development and In Vivo Evaluation of Small-Molecule Ligands for Positron Emission Tomography of Immune Checkpoint Modulation Targeting Programmed Cell Death 1 Ligand 1. *J. Med. Chem.* **2024**, 67(5):4036–4062. doi.org/10.1021/acs.jmedchem.3c02342

[4] **Bamminger K**, Pichler V, Vraka C, Nehring T, Pallitsch K, Lieder B, Hacker M, Wadsak W. On the Road towards Small-Molecule Programmed Cell Death 1 Ligand 1 Positron Emission Tomography Tracers: A Ligand-Based Drug Design Approach. *Pharmaceuticals* **2023**, 16(7):1051. doi:10.3390/ph16071051

[5] **Bamminger K**, Raitanen J, Karanikas G, Rasul S, Nics L, Mitterhauser M, Wadsak W, Hacker M, Pichler V, Vraka C. Rapid, high-yield enzymatic synthesis of n.c.a. 6-[^{18}F]fluorodopamine (6-[^{18}F]FDA) for in vivo application. *Nuc. Med. Biol.* **2022**, 114-115:189-197. doi: 10.1016/j.nucmedbio.2022.07.001

[6] Ghavami M, Vraka C, Hubert V, Schachner H, **Bamminger K**, Hacker M, Kain R, Moghadam MF. Radiolabeled HER2-directed exosomes exhibit improved cell targeting and specificity. *Nanomedicine* **2021**, 16(7):553-567. doi: 10.2217/nnm-2020-0408

[7] Bauer M, Barna S, Blaickner M, Prosenz K, **Bamminger K**, Pichler V, Tournier N, Hacker M, Zeitlinger M, Karanikas G, Langer O. Human Biodistribution and Radiation Dosimetry of the P-Glycoprotein Radiotracer [^{11}C]Metoclopramide. *Mol. Imaging Biol.* **2021**, 23:180-185. doi: 10.1007/s11307-021-01582-4

[8] Bauer M, **Bamminger K**, Pichler V, Weber M, Binder S, Maier-Salamon A, Tahir A, Jäger W, Haslacher H, Tournier N, Hacker M, Zeitlinger M, Langer O. Impaired Clearance From the Brain Increases the Brain Exposure to Metoclopramide in Elderly Subjects. *Clin. Pharmacol. Ther.* **2021**, 109:754-761. doi: 10.1002/cpt.2052

[9] Pichler V, Ozenil M, **Bamminger K**, Vraka C, Hacker M, Langer Oliver, Wadsak W. Pitfalls and solutions of the fully-automated radiosynthesis of [^{11}C]metoclopramide. *EJNMMI radiopharm. chem.* **2019**, 4:31. doi: 10.1186/s41181-019-0083-2

[10] Tournier N, Bauer M, Pichler V, Nics L, Klebermass EM, **Bamminger K**, Matzneller P, Weber M, Karch R, Caille F, Auvity S, Marie S, Jaeger W, Wadsak W, Hacker M, Zeitlinger M, Langer O. Impact of P-glycoprotein Function on the Brain Kinetics of the Weak Substrate ^{11}C-

Metoclopramide Assessed with PET Imaging in Humans. *J. Nucl. Med*. **2019**, 60(7):985-991. doi: 10.2967/jnumed.118.219972

Scholarships

2016/2017:	Merit-based scholarship (University of Vienna)
2015/2016:	Merit-based scholarship (University of Vienna)

Personal skills and competences

Mother tongue:	German
Other languages:	English (B2), French (Basics)
Computer skills:	Graph Pad Prism, ChemDraw, MarvinSketch, LigandScout, Microsoft Office (Word, Excel, PowerPoint), social-media and internet knowledge
Driver's license:	Class B

Additional information

Military service:	Fulfilled as guard in Wels and Ebelsberg from October 2009 to May 2010